



Little Crow

Solar Park

Little Crow Solar Park, Scunthorpe

APPLICANT'S POST HEARING SUBMISSIONS: ISSUE SPECIFIC HEARING 1: ENVIRONMENTAL STATEMENT, GENERAL MATTERS AND THE DRAFT DEVELOPMENT CONSENT ORDER

DEADLINE 1

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The Little Crow Solar Park Development Consent Order 201X

**Applicant's Post Hearing Submissions: Issue Specific Hearing 1:
 Environmental Statement, General Matters and the draft Development Consent Order ("dDCO")**

1. Introduction

1.1 This document is submitted by INRG Solar (Little Crow) Limited ("the Applicant") and contains the Applicant's Issue Specific Hearing 1 ("ISH1") Post Hearing Submissions, including written summaries of oral submissions made on behalf of the Applicant at ISH1 on Tuesday 20th and Wednesday 21st April 2021 and some brief commentary on the Examination procedure discussed at the Preliminary Meeting on Tuesday 20th April.

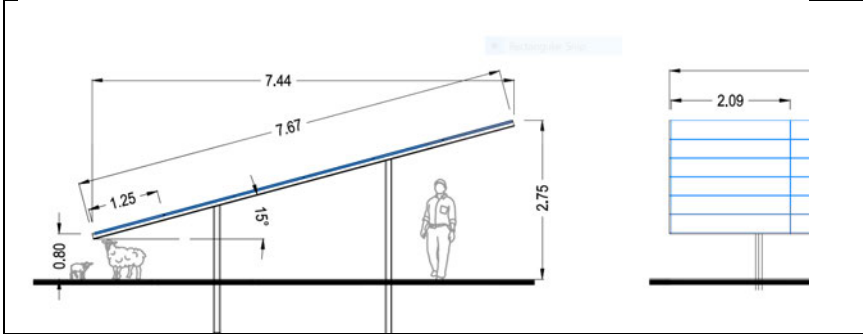
2. Preliminary Meeting (20 April 2021)

2.1 The Applicant's submissions in respect of Examination procedure were set out in its submission at Procedural Deadline A (Document Reference 9.15 LC OTH, PINS Reference PDA-001). The Applicant also indicated that it would be open to the Examining Authority ("ExA") to consider that the hearings indicatively scheduled for 7 and 8 September be moved to 9 and 10 September if it was desired to retain discretion as to whether those hearings were necessary, pending consideration by the ExA of Deadline 5 submissions.

3. ISH1 Part 1 (20 April 2021) – Environmental Statement – general matters

Agenda Item	Topic	Applicant's Response
3 a)	The generating capacity for the proposed solar park.	<p>The Applicant undertook to submit a technical note explaining the general workings of a solar park and this report is submitted with the Applicant's Deadline 1 submissions – [Little Crow Solar Park Technical Note (Document Reference 9.20 LC OTH)].</p> <p>Paragraph 4.2.1 of the Environmental Statement ("ES") (Document Reference 6.4 LC ES CH4, PINS Reference APP-061), which summarises the proposed development, confirms that the intended design capacity is over 50MWp. Chapter 4 of the ES contains the description of the development upon which the various elements of the environmental assessment are based.</p> <p>The generating capacity of the proposed development is not considered to be an environmental parameter for the purposes of environmental impact assessment. The environmental assessment has been undertaken in consideration of parameters based primarily on the physical characteristics of the solar panels themselves as described in Chapter 4. Whilst an indicative capacity of 150-200MWp is given in the environmental statement, the Applicant has taken this approach so as to preserve that ability for it to take advantage of technological advances whilst remaining within</p>

		<p>the assessed envelope. For example, it may be possible in the future to install solar panels with a capacity over 200 MWp, whilst still remaining within the assessed parameters. Further details are explained in the Applicant's technical note referred to above.</p> <p>The Applicant does not therefore seek to place a maximum design capacity on the proposed development within the application. This is approach is consistent with other recent Development Consent Orders for renewable energy development, such as The Cleve Hill Solar Park Order 2020 (S.I. 2020 No. 547) and The Hornsea Three Offshore Wind Farm Order 2020 (S.I. 2020 No. 1656) which both refer to a gross electrical output capacity in excess of the threshold capacity set out in section 15 Planning Act 2008, whilst indicating a likely capacity in their respective environmental statements (see Chapter 5, and in particular paragraphs 5.3 and 5.4 of the Cleve Hill environmental statement and Chapter 3, and in particular paragraphs 3.1, 3.2 and 3.5 of the Hornsea Three environmental statement). The relevant environmental statement chapters and DCOs are enclosed at Appendix [1] to this document.</p> <p>This is also the approach commonly adopted in consents issued by Scottish Ministers under the Electricity Act 1990 for onshore windfarms in Scotland. Generally this approach became normal practice in 2017, as it was accepted that a maximum generation capacity is an unnecessary limitation on consents. Enclosed at Appendix [2] to this document are some recent decision notices.</p> <p>This approach has been taken due to the rapid pace with which technology advances within the renewable energy sector which enables greater efficiency, and potentially greater capacity generators to be fitted and used within the same physical parameters. The approach preserves the ability for a project to come forward with the maximum power possible within the parameters of the environmental assessment. This is secured in the dDCO through article 3 and requirement 6, which requires details to be approved in accordance with the ES.</p> <p>The Applicant noted that North Lincolnshire Council did not disagree with this approach at the hearing.</p> <p>The ExA raised a question in respect of the land coverage as noted in the list of Works no. 1 within paragraph 4.5.1 of the ES (Document Reference 6.4 LC ES CH4, PINS Reference APP-061). The Applicant advised that it would check this point and confirms that:-</p>
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		<p>(i) The Works Detail Whole Site Plan (Document Reference 2.10 LC DRW, PINS Reference APP-015) lists the ground mounted solar system as comprising 356,670 panels. The surface measurement of each panel is 1.25m by 2.09m. The modules are arranged in stacks of six in landscape orientation, as detailed below:</p>  <p>(ii) The total surface area of 6 modules is 16.1sq m. Since the modules are tilted at 15 degrees, the actual ground floor coverage of the six modules is less at 15.55sq m.</p> <p>(iii) The total floor area coverage of the candidate design is 924,346 sq m. The Applicant acknowledges that paragraph 4.5.1 of the ES provides an incorrect figure of 'c. 800,000sq m'. Notwithstanding the error, the revised figure still only represents approximately 40% of the total Order Limits (as opposed to 35% using the erroneous figure of 800,000 sq m).</p> <p>(iv) The separation distances between each row appear to be very small when viewed on the Works Detail – Whole Site Plan. This is due to the specific scale in which the drawing is presented on. The separation is more apparent on a dwg. file or in autocad and these formats can be provided if requested by the Examining Authority. Drawing Works Detail – Section Details (Document Reference 2.23 LC DRW, PINS Reference APP-028) provides detail of the spacing between the elements shown on those sections and clearer detail of the mounting structures.</p>
3 b)	The Applicant's consideration of alternatives to the Proposed Development, including location and scale	The obligation in relation to the consideration of alternatives as set out in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the "EIA Regulations") is for the ES to set out a description of the "reasonable alternatives studied by the applicant, which are relevant to the proposed

		<p><i>development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment” Regulation 14(2)(d)). Schedule 4 (paragraph 2) of the EIA Regulations provides examples as to what this might include: development design, technology, location, size and scale.</i></p> <p>This obligation does not impose a general requirement to consider a comprehensive suite of alternatives, it is to describe the alternatives that actually were considered by the applicant. Furthermore, where it does so, there is no obligation on the applicant to choose the best performing environmental option. It must simply indicate the reasons for its choice having considered the environmental effects.</p> <p>The following sections explain how the Applicant has engaged with those principles in the Environmental Statement. Further details explaining the importance of grid connection access in initial site selection are set out in the Applicant’s technical note referred to above.</p> <p>For the Application, the approach to alternatives was discussed in the Scoping Opinion (Document Reference 7.1 LC TA1.1, PINS Reference APP-070 & APP- 071). The Planning Inspectorate confirmed at paragraph 2.3.12 of the Scoping Opinion that a discrete section should be included in the ES dealing with the details of alternatives. This is included at paragraphs 4.22 and 4.23 Chapter 4 of the ES (Document Reference 6.4 LC ES CH 4, PINS Reference APP-061).</p> <p>There are four main constituents to the consideration of alternatives in the ES, these are</p> <ul style="list-style-type: none">(i) do nothing;(ii) alternative technology;(iii) alternative design; and(iv) site selection. <p>Do nothing (paragraph 4.22.3) – It is best practice to consider ‘do nothing’ – this would entail leaving the development site in its current condition and it is assumed that the current land use would remain as it is, that is, available for agricultural use. It is an obvious statement that any impacts (and benefits) associated with the proposed development would therefore not occur.</p> <p>Alternative technology (paragraphs 4.22.4 to 4.22.5) - Ground mounted solar schemes represent a prudent and efficient use of agricultural land in comparison to the energy output from biofuels – see paragraph 4.22.4 and table 4.1. Purely, therefore, in terms of the utilisation of natural resources, production of energy from</p>
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		<p>solar panels is far more efficient than other forms of energy production from cropping the land.</p> <p>Alternative design (paragraph 4.22.6) - Over the course of the design process, the Applicant has continuously refined the scheme's design to encompass the local planning authority's and other stakeholders' feedback at numerous junctures together with specialists' advice. At the preliminary stage of the development, the Applicant considered the suitability of a wider parcel of land in-between the steelworks and the B1207 that extended to the north up to High Santon. Following preliminary assessment, the northern area was dismissed for reasons that included its proximity to human receptors from High Santon and its predicted higher quality agricultural land value. Key changes to the design introduced during the non-statutory consultation period included the introduction of a development exclusion zone extending around the former Gokewell Priory; a temporary diversion of the public right of way during the construction and decommissioning period and the refinement to the approach towards biodiversity mitigation and enhancement measures. The biodiversity measures were refined during the statutory consultation period and other alterations for this stage of development included the provision of concrete shoes for the solar panels located within another area of archaeological interest.</p> <p>Site selection (section 4.23) - One of the biggest constraints which has to be considered when developing renewable led energy scheme is securing a viable point of connection to the electricity network. Securing grid connection is very difficult and problematic for energy proposals. The Applicant has accepted a grid offer from Northern Powergrid and secured the 99.9MW export capacity required for a project of this size. The grid offer accepted can only be used for the Little Crow Solar Park and cannot under be transferred to any other site. The 99.9MW capacity which has been secured by the Applicant has taken the NPG electricity network to its maximum fault level. Therefore, no further distributed generation connections can be connected on to NPG's existing electricity network, within the locality at this time without further significant reinforcement works to the electricity network. This is detailed in the Grid Network Constraints Report which is presented at Appendix 4.3 to the ES (Document Reference 7.10 LC TA4.3, PINS Reference APP-079).</p> <p>The Little Crow Solar Park development requires a 132kV connection, another limiting factor on the potential location for the site, since it must be located in close proximity to the 132kV electricity network.</p> <p>Having established the point of connection, the extent of the proposed development site itself was selected through an extensive exercise based on a range of technical,</p>
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		<p>environmental and economic factors. These included: solar irradiation; topography; proximity to sensitive human receptors; site access; flood risk; landscape considerations; agricultural land; heritage; biodiversity, and commercial agreement with landowners.</p> <p>No alternative site locations were considered by the Applicant.</p> <p>In the context of discussions around other existing solar park consents (Connesby, Raventhorpe Farm and Raventhorpe Lodge (land at Sweeting Thorns)) the ExA asked the Applicant to comment on whether there was any implication in respect of grid capacity and whether these projects would use the same grid connection as the Little Crow proposed development.</p> <p>The Applicant confirms that there are no implications for the grid capacity secured for Little Crow Solar Park due to the presence of other existing solar parks in the vicinity. Each grid connection offer is independent of any of the other solar parks and each solar park can operate independently of the other solar parks.</p>
3 c)	<p>Landscape and visual effects:</p> <p>i. Suitability of the study area and the viewpoints used in the Landscape and Visual Impact Assessment</p> <p>ii. Consideration of glint and glare effects</p>	<p>i. The Applicant confirms that nothing has changed since the carrying out of the landscape and visual impact assessment ("LVIA") that would alter the judgments contained in the ES.</p> <p>ii. The photovoltaic (PV) panels are made up of silicon based PV cells that are encased in a glass covering. Reflection of sunlight from PV panels is not desirable as the greater amount of light which can be captured by the PV cell, the greater the amount of electricity which is produced. As such, an anti-reflective coating is used on the panels which changes the reflectivity from specular distribution to diffuse distribution, which is sometimes referred to as 'stipple glass'. Therefore, as light falls onto the PV panels, most of the sunlight is transmitted to the PV cell beneath the glass with only a small amount reflected back in multiple angles. The result is an object that is perceived to have very little glare.</p> <p>It was therefore determined that there was no potential for any significant effects to arise in relation to glint and glare.</p> <p>Nevertheless, since glint and glare issues are often raised as potential issues with regard to solar farms, the Applicant undertook to provide a Glint and</p>

		<p>Glare Report. This is submitted with the Applicant's Deadline 1 submissions [Solar Photovoltaic Glint and Glare Study (Document Reference 9.19 LC OTH) The Applicant confirmed that it is not aware of any substantive glint or glare issues arising as a result of a solar project in the UK.</p>
	<p>iii. Effects on views from footpaths to which the public have access, including the status of the 'Opencast Way'</p>	<p>iii. The Applicant is not aware of any permissive footpaths crossing the Order limits and notes that the Ordnance Survey data is different (older) to the Definitive Map, and the LVIA is based on the route in the Definitive Map. The LVIA (Document Reference 6.6A LC ES CH6, PINS Reference PDA-006) provided a detailed assessment of Footpath 214 which runs through the site (paragraph 6.4.47 – 6.4.50). The Applicant notes that North Lincolnshire Council agreed with this position at the hearing.</p> <p>The LVIA provided a detailed assessment of Footpath 214 which runs through the site (paragraph 6.4.47 – 6.4.50). This identified a significant effect as the route passes through the site, reducing to no effect as the route enters the adjacent woodland. Footpath 212 lies to the south of the site but would have no views of the proposed development due to intervening screening and no effect. No significant effects were identified for any other routes in the surrounding landscape.</p> <p>The Applicant notes, as confirmed by the local planning authority at ISH1, that the 'Opencast Way' is a route promoted by a local resident and is a 32 mile circular route around Scunthorpe utilising the Scunthorpe Ridge Walk and public footpaths through parts of the adjacent parishes of Bottesford, Messingham, Holme, Broughton, Appleby, Roxby cum Risby, Winterton, Burton upon Stather and Flixborough. The Ridge Walk traverses the old parishes of Crosby, Scunthorpe, Frodingham, Brumby and Ashby, now incorporated into the town of Scunthorpe. The route is titled after the method of extraction of the many and varied mineral deposits which was historically practiced in the Scunthorpe area, and in some instances are still continued today. Typical examples are limestone, gravel, sand and, of course, the mineral synonymous with Scunthorpe, iron ore.</p> <p>The Opencast Way follows the route of Footpath 214, as it passes through the site. It has therefore been fully considered in the LVIA (albeit not named specifically).</p> <p>Regarding the status of the 'Opencast Way', it is not a 'National Trail' and has no specific additional status in landscape and visual terms beyond that of any other public footpath, the users of which are already acknowledged</p>

		<p>to be of 'high' sensitivity. It is simply an identified circular route which can be taken using a collection of existing public rights of way, which has some level of local publicity and waymarking. It is not currently marked as a recreational route on OS mapping.</p>
	<p>iv. Effectiveness of the proposed visual mitigation measures</p>	<p>iv. The effectiveness of the proposed visual mitigation measures will not be significantly different between the Summer and Winter months, even though the mitigatory planting will be deciduous, due to the effects of significant woodland screening. This means that the LVIA judgments will not be materially affected by seasonality. The Applicant believes that photomontages included in the LVIA provide a realistic basis for assessment for the fifth year post-planting because they are based on an effective management regime, which has a significant impact on the effectiveness of the mitigation.</p> <p>The Applicant explained that the choice of plant is also key, with high growth species such as blackthorn and hawthorn providing effective screening within 5 years subject to appropriate management. The Outline Landscape and Ecological Management Plan ("LEMP") (Document Reference 7.28 LC TA7.8, PINS Reference APP-097) sets out the principles to be followed for this purpose and will be further refined by development of a detailed LEMP post-consent as secured through the dDCO (requirement 10).</p> <p>The Applicant notes that the Interested Party at Fennswood, formerly known as Heron's Lodge, is to submit further details in respect of its concerns relating to landscape and visual impact in respect of the access road in its written representations at Deadline 1 and the Applicant will respond to those representations at Deadline 2.</p>
<p>3 d)</p>	<p>The identification of any other proposed nearby major developments and the consideration of cumulative and in-combination effects.</p>	<p>Existing developments, such as Ravensthorpe Solar Farm, are already included in the baseline of the ES.</p> <p>The issue of potential cumulative effects have been discussed with North Lincolnshire Council as the local planning authority. The Council advised on 15 August 2019 that they were not aware of any new developments that would need to be considered as part of the cumulative impact assessments in respect of the proposed development. This is confirmed in Chapter 2 of the ES at paragraph 2.10 (Document Reference 6.2 LC ES CH2, PINS Reference APP-059).</p> <p>The Applicant has also monitored the Council's website since the ES was prepared and notes there are no further developments to consider.</p>

		The Applicant notes that North Lincolnshire Council confirmed at the hearing that it was not aware of any further cumulative developments that needed to be considered.
3 h)	Duration of the construction phase for the Proposed Development.	<p>Based on the assumption that the proposed development will be built in one single phase (i.e. the solar array element and the battery storage element together), the construction period will be around 11 months.</p> <p>Should the battery storage element be constructed separately to the solar array, the construction period for that would need a relatively minor extension to that period, of approximately 3 months. Table 5.2 of the Outline Construction Traffic Management Plan (Document Reference 7.36 LC TA 9.2, PINS Reference APP-105) presents the predicted heavy goods movement associated with just the construction phase of the battery compound. With a construction phase of 3 months, this would equate to an average of less than two deliveries per day. The level of traffic during the temporary construction phase is not considered to be significant and it is considered that this will not have an impact on the safety or operation of the local highway network.</p>
3 i)	Effects during the decommissioning phase for the Proposed Development, including the disposal of decommissioned equipment and the retention of visual mitigation for the operational phase of the solar park.	<p>At this stage, the Applicant considers that the decommissioning phase would entail the following:</p> <ul style="list-style-type: none"> i. Ten years after operation, a fund would be set up to set aside revenue for decommissioning – this is explained at paragraph 2.22 of the Outline Decommissioning Plan (Document Reference 7.9 LC TA4.2 ODS, PINS Reference APP-078). ii. No more than 12 months prior to the decommissioning commencing, an ecological survey would be undertaken to identify ecological constraints arising from decommissioning activities (this is set out in the outline LEMP - paragraphs 5.1.1 to 5.1.6 (Document Reference 7.28 LC TA7.8, PINS Reference APP-097). iii. Appropriate mitigation measures to reduce impacts on identified species and habitats and ensure legal compliance would be developed following all necessary surveys. This would be presented in a Decommissioning Strategy submitted to the relevant local planning authority for approval pursuant to requirement 4 of the dDCO. iv. Decommissioning would take place in a single phase for both the solar and battery. The exception to this is the substation and DNO access track which will remain in place if any another connection into the electricity network in

		<p>the area is required for another project. In the event that no other projects have requested a connection or there are no projects already connected into the Northern Powergrid substation when decommissioning of Little Crow Solar Park is about to commence then the substation and DNO access track will be decommissioned. The Applicant will seek to update the Outline Decommissioning Strategy (Document Reference 7.9 LC TA4.2, PINS Reference APP-078) to reflect this position by Deadline 2.</p> <ul style="list-style-type: none">v. Temporary diversion of the public right of way would take place during decommissioning.vi. An overview of the decommissioning activities is set out in the Outline Decommissioning Strategy (Document Reference 7.9 LC TA4.2 ODS, PINS Reference APP-078). <p>Landscape and Visual Impact</p> <p>The LVIA (Document Reference 6.6A LC ES CH 6, PINS Reference PDA-006) considered the matters of potential effects from the decommissioning phase. LVIA confirms at paragraph 6.4.54 that:</p> <p><i>'The effects during the decommissioning phase would be similar to those outlined in the Construction section above, with levels of effect gradually reducing rather than increasing as the development is dismantled. The movement of vehicles, personnel and materials as the Solar Park is removed would result in a temporary moderate additional effect on the landscape character of the development site, over and above the permanent effects. There would also be an additional medium magnitude of change on views from the PROW network passing through the development site as a result of the decommissioning activities'.</i></p> <p>No specific additional landscape and visual mitigation was identified for the decommissioning phase. However, the general mitigation measures (i.e. the selection of the site location, which is well screened by surrounding woodland; new hedgerow planting; and gapping up of existing hedgerows) would all also assist in reducing the impact of the decommissioning phase.</p> <p><i>As set out in the ES, all 'plant and machinery located within the Order Limits would be removed... The exception to this is the substation and DNO access track which will remain in perpetuity or until such time as it is decommissioned by the DNO [or if future use is not required at the end of the operational life of the solar park]'. The</i></p>
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		<p>site would then revert to estate use such that there would be no permanent significant landscape and visual effects.</p> <p>All landscape mitigation would remain in place, subject to the need for removal to enable the decommissioning to take place, and subject to the ability to return the land to Estate use.</p> <p>The ExA raised a question in response as to whether the retention of mitigatory planting would look out of place with the current field pattern. In response, the Applicant noted that ecological impacts would also need to be considered at the point of decommissioning and agreed to provide further details in its Deadline 1 submission. This is set out below:</p> <p>Ecology</p> <p>Decommissioning of the site would be expected to have similar direct effects on ecology as those anticipated for the construction phase – the removal of structures/cabling etc. would have similar impacts to their installation, with comparable disturbance from vehicle and machinery operation.</p> <p>Reversion back to estate managed land would likely be beneficial for some species of farmland bird which require open sightlines, but much of the biodiversity value which it is anticipated will develop during the scheme's lifespan would be lost along with habitat for a variety of other species. The introduction of an alternative use for 35 years will permit recovery of soil organic matter depleted through cultivation particular within Work No. 1 [Area for Ground Mounted Solar Panels] and Work No. 6 [Perimeter Development Buffer]. However, for Work No 2a or 2B [Area for battery energy storage system] it may be necessary to enhance the nutrient content of the soil if it has been depleted, which would likely be achieved through treatment with fertilisers, plus pesticides and herbicides.</p> <p>Depending on the ecological value of the habitats that develop over the lifespan of the scheme, it is possible that certain areas of the site may need to be retained due to their value for wildlife on decommissioning. Alternatively, and on application of the mitigation hierarchy principles, their loss may require compensation through on or off-site measures to ensure land/habitats are preserved for wildlife into the future.</p> <p>As outlined above, no more than twelve months prior to decommissioning commencing, the site will be surveyed by an appropriately qualified ecologist to identify any ecological constraints arising from decommissioning activities.</p>
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		It cannot reasonably be foreseen what legislative protection will be afforded to particular wildlife species at the end of the scheme's lifespan. Further surveys for protected species which could be impacted by decommissioning would also be expected.
AOB	Matters raised by the Interested Party ("IP") at Fennswood, formerly known as Heron's Lodge	The Applicant notes that the IP referred to the points made in its Relevant Representations in relation to noise and air quality and the Applicant is liaising with the IP for clarification on those concerns and will respond to those points in due course.

4. **ISH1 Part 2 (21 April 2021) – draft Development Consent Order (dDCO)**

Agenda Item	Topic	Applicant's Response
4 a)	Definition of the generating capacity for the Proposed Development	This was dealt with under item 3a) at ISH1 (Part 1) on 20 April.
4 b)	The flexibility with respect to the location of the proposed battery storage facility	<p>The battery energy storage system is shown as being located in one of two locations shown on the Works Plan Document Reference 2.8 LC DRW, PINS Reference APP-013 as Work No. 2A and Work No. 2B. Alternative locations are proposed to allow the Applicant to take advantage of any technological advances in the development of solar panels arising before construction begins. If relevant advances are made it may mean that fewer solar panels are required to produce the same output and if this is the case the Applicant may wish to reduce the number of solar panels comprising Work No. 1 and to construct Work No. 2B. The alternative locations bear two works numbers on the Works Plan, to show that if Work No. 2A is constructed the area allocated for Work No. 2B may be used for Work No. 1 (i.e. solar panels). Conversely, if the battery energy storage system is located on the site of Work No. 2B then the area allocated for Work No. 2A will form part of the Ecological Corridor (Work No. 3).</p> <p>Either Work No. 2A or Work No. 2B as shown on the Works Plan will house the battery energy storage system. Article 3(3) dDCO Document Reference 3.1 LC DCO, PINS Reference APP-045 provides that either Work No. 2A or Work No. 2B may be constructed (but not both). Article 3(4) ensures that the undertaker notifies the local planning authority prior to commencement of which work it intends to construct.</p>

Agenda Item	Topic	Applicant's Response
		<p>This follows the approach taken in other renewable energy projects where alternative locations for a particular element was sought such as The Clocaenog Forest Wind Farm Order 2014 (SI 2014/2441) and the Dogger Bank Creyke Beck Offshore Wind Farm Order 2015 (SI 2015/318).</p>
4 c)	<p>The proposed Articles in the dDCO</p> <p>Article 8</p> <p>Article 18</p>	<p>The Applicant was asked to consider the definitions in Schedule 2 Parts 1 and 2 and whether they should be incorporated within the Article 2 definitions. The Applicant noted that the definitions in question are only used within the relevant Part of Schedule 2 to the Order and believes that this of greater assistance when reading those Parts of the Order . The local authority supported this approach and also prefer to retain the definitions as currently set out. This is a common approach in other made Orders and can be seen for example in The Kelmsley Mill K4 Combined Heat and Power Generating Station Order 2019, The A30 Chiverton to Carland Cross Development Consent Order 2020 and The A1 Birtley to Coal House Development Consent Order 2021.</p> <p>The Applicant is proposing minor changes to Articles 2,6,7,8 and 14 of the dDCO and these are explained the in DCO Changes Tracker submitted at Deadline 1 (Document Reference 3.5 LC DCO). The section 55 checklist issued upon acceptance of the Application flagged certain minor inconsistencies between the dDCO and the Explanatory Memorandum (Document Reference 3.2 LC DCO, PINS Reference APP-046) in relation to the description of the works set out in Schedule 1 of the dDCO. The Applicant can confirm that the dDCO is correct and the Explanatory Memorandum submitted at Deadline 1 (Document Reference 3.2A LC DCO) has been amended accordingly.</p> <p>The Applicant is not aware of any outstanding comments on the dDCO articles from consultees which require amendment to the application version. The dDCO was provided to the local planning authority in consultation but no specific comments were received relating to the dDCO.</p> <p>Article 8 has been amended to change the reference to temporary stopping up to temporary closure to address the fact that stopping up cannot be temporary. This change causes consequential amendments to the table headings in Schedule 3.</p> <p>Article 18 requires the written approval of the local planning authority or any other relevant person and it was queried whether this duplicated requirement 16 which requires the written approval of the local planning authority, the Secretary of State or another person. The Applicant noted that requirement 16 deals only with</p>

Agenda Item	Topic	Applicant's Response
	<p data-bbox="483 778 600 802">Article 19</p> <p data-bbox="483 1278 898 1302">Schedule 6 – Protective Provisions</p>	<p data-bbox="1032 252 2029 395">approvals under the requirements whereas Article 18 applies to all approvals under the Order. Article 18 therefore encompasses approvals under Articles 5 (Secretary of State) and 9 (Environment Agency, watercourse owners, drainage and sewerage companies), any “discharging authority” under Schedule 2 Part 2 and statutory undertakers under Schedule 6.</p> <p data-bbox="1032 427 2029 627">The purpose of Article 18 is to clarify that an approval under the Order will not be valid unless it is written and this is for the benefit of all parties concerned with the authorised development. This approach ensures that the relevant approvals are properly evidenced along with the terms on which they are granted. The Applicant therefore believes that it is helpful to retain the benefit of the generality that Article 18 provides. The local planning authority were also keen to retain requirement 16, and this has therefore not been removed.</p> <p data-bbox="1032 659 2029 746">The ExA questioned the need for Article 19 as the dDCO does not include any powers of compulsory acquisition and suggested that the Applicant could include appropriate protection in any leases of the authorised development.</p> <p data-bbox="1032 778 2029 1042">The purpose of Article 19 is not contingent upon the inclusion of compulsory acquisition powers in the dDCO. It is a model clause which is included in the overwhelming majority of made DCOs to ensure that any lease or agreement that is entered into by the undertaker relating to the construction, maintenance, use or operation of the authorised development is not prejudiced by any current or future provision of landlord and tenant law. Its purpose is therefore to ensure that the terms of any lease or agreement which may be entered into by the undertaker constitute the full terms of the agreement between the parties and allows them to provide the appropriate protection as suggested by the ExA.</p> <p data-bbox="1032 1074 2029 1161">The Applicant notes that equivalent provisions are included in made DCO’s even where letting may not be expressly contemplated. See for example Article 51 of The A303 (Amesbury to Berwick Down) Development Consent Order 2020.</p> <p data-bbox="1032 1193 2029 1249">The Applicant has updated the draft Explanatory Memorandum submitted at Deadline 1 to reflect the above explanation.</p> <p data-bbox="1032 1281 2029 1361">The Applicant has amended Schedule 6 of the dDCO (Protective Provisions) to reflect the agreement reached with Anglian Water Services and the addition of standard protective provisions for operators of the electronic communications code network,</p>

Agenda Item	Topic	Applicant's Response
		following discussions with Openreach. Details of these changes are set out in the DCO change tracker submitted at Deadline 1 (Document Reference 3.5 LC DCO)].
Schedule 2 Part 1 Requirements	The Applicant was asked to undertake a review of requirements amending "will" to "must" where applicable.	The Applicant has reviewed this and made changes where considered appropriate. This has been amended in requirements 3(1) and 9 (1) in the dDCO submitted at Deadline 1 (Document Reference 3.1A LC DCO).
Schedule 2 Part 1 Requirements	Requirement 4 – Decommissioning of substation – please can the Applicant provide a response from Northern Powergrid to explain its intentions regarding the substation following decommissioning of the authorised development.	Northern Powergrid have confirmed that the substation will only remain in place following decommissioning of the authorised development if at the time of decommissioning another project has already connected into or is scheduled to connect into the Northern Powergrid substation. The position with regard to the substation will therefore be reviewed at the time of decommissioning.
	Requirement 6 /10 – the ExA questioned whether there was any duplication between elements set out in requirement 6(1) and requirement 10	Requirement 6 relates to the phasing of the authorised development and 6(1) (j) and (k) refer to tree and hedgerow protection measures and new planting respectively. These are also covered by the LEMP which is secured by requirement 10. 10(2)(b) specifically refers to habitat creation and native hedgerow planting. These have therefore been deleted from requirement 6, as shown in the DCO change tracker (Document Reference 3.5 LC DCO).
	Requirement 7 – the ExA asked the applicant to reconsider the drafting of Requirement 7, in particular to reflect a chronological approach to its discharge	7(1) and (2) have been reversed to reflect the order in which the requirement is discharged and to clarify the possible need for an updated BSMP. 7(3) is deleted and added to the end of 7(2) to ensure that any revised BSMP is in accordance with the Outline BSMP. Please see the DCO change tracker (Document Reference 3.5 LC DCO) for details
	Requirement 8 – the ExA questioned whether there is any duplication between elements set out in requirement 8	Requirement 8(2)(c), (d) and (f) have been refined to address any overlaps and ensure clarity. Please see the DCO change tracker (Document Reference 3.5 LC DCO) for details.
	Requirement 9 (2)(c) – the ExA asked the applicant to provide further details of the purpose of the condition survey and any consequential actions that arise as a result.	Requirement 9(1) requires the CTMP to be in accordance with the Outline CTMP (Document Reference 7.36 LC TA9.2, PINS Reference APP-105) but Section 7 of the Outline CTMP explains how the survey information will be used. A pre-commencement walk-over survey is to be carried out and agreed with the highway

Agenda Item	Topic	Applicant's Response
		<p>authority. This is to be followed by a further condition survey covering the same extent at the end of the construction activities in order to identify and agree any remedial works reasonably attributable to construction activities. Requirement 9(3) requires the CTMP to be implemented as approved. On this basis the requirement has not been amended.</p>
	<p>Requirement 12 – the ExA asked the Applicant to consider whether the tailpiece to requirement 12(3) should be removed.</p>	<p>Requirement 12 (3) specifies that the surface and foul water drainage system must be constructed in accordance with the approved details <i>unless otherwise agreed in writing by the local planning authority</i>. The wording in italics has been removed in the revised dDCO submitted at Deadline 1. The Applicant considers that the procedure for dealing with amendments to approved details is adequately set out in Requirement 17. Please see the DCO change tracker (Document Reference 3.5 LC DCO) for details.</p>
	<p>Requirement 15 – the ExA sought clarification from the Applicant as to the meaning of term 'length' in requirement 15(2)(a) and whether this referred to distance or time period</p>	<p>Requirement 15 (2)(a) refers to the 'length' of any sections of the public right of way to be temporarily closed. The dDCO submitted at Deadline 1 has been amended to refer to distance. Please see the DCO change tracker (Document Reference 3.5 LC DCO) for details.</p>
	<p>Requirement 16 – The ExA questioned whether Requirement 16 was necessary as it appears to duplicate Article 18, and further whether it would be preferable to remove requirement 16 and refer to written approval being required in each requirement where appropriate</p>	<p>Please refer to the comments on Article 18 above. In any event, the Applicant considers that a "catch all" requirement is more comprehensive in its approach that references to written approval being included separately within each requirement.</p>
	<p>Requirement 17 – the ExA questioned whether the inclusion of this requirement was appropriate</p>	<p>The Applicant notes that this provision accords with the principals of paragraph 17.5 of PINS Advice Note 15: Drafting Development Consent Orders which expressly contemplates such drafting. It is commonly included in DCO requirements (see The Cleve Hill Solar Park Order 2020 and The Hornsea Three Offshore Wind Farm Order 2020 for example). North Lincolnshire Council also agreed with the Applicant that its use was common in made DCO's in its experience. The requirements in a made DCO are not subject to the same statutory code as applies to conditions on a planning permission under the Town and Country Planning Act 1990. This requirement ensures that the Applicant has the ability to submit and obtain approval from the local planning authority to variations to previously approved details where appropriate to do so.</p>

Agenda Item	Topic	Applicant's Response
		<p>The inclusion of this provision is particularly important where details that have previously been approved may need to be updated during the course of construction, for example in response to unforeseen circumstances arising as a result of unexpected ground conditions or changes to the development programme due to weather conditions where otherwise the undertaker would be under an obligation to comply with previously approved details. The inclusion of requirement 17 allows the process to remain streamlined and practical and prevents the frustration of the delivery of the development. Safeguards are included within the wording of Requirement 17 to ensure that any such variations may not be approved where they do not accord with the environmental statement or give rise to any materially new or different environmental effects The local planning authority also support the retention of this requirement citing operating hours as being a good example of where this can assist. The Explanatory Memorandum (Document Reference 3.2 LC DCO, PINS Reference APP-0046] contains examples of where this approach has been used.</p>
	<p>Requirement 18: definition of "discharging authority"</p>	<p>Requirement 18: The Applicant has considered the inclusion of the definition of "discharging authority" within the requirement (as opposed to its inclusion in Article 2 (Interpretation) and takes the view that since it relates specifically to that part of the Schedule that it does not need to be moved. As a continuation of the requirements anyone checking them will note the procedure for discharge and the corresponding definition. The Applicant would prefer not to restrict the generality of the definition and believes that this will not cause any confusion to the bodies considered to be "discharging authorities"</p>
	<p>Schedule 2 Part 2 Procedure for Discharge of Requirements – review procedure</p>	<p>The definition of 'business days' has been removed and the relevant time periods amended to address this and the reference to 'a person' at para 21 (1) has also been removed to tighten the drafting of this Part 2. These are set out in detail in the DCO change tracker (Document Reference 3.5 LC DCO).</p> <p>The Applicant notes that the provisions of Part 2 of Schedule 2 closely follow the approach set out in section 19 of Advice Note 15 and the wording included at its Appendix 1 as recommended in Good Practice Point 3.</p> <p>The Applicant has retained the description of 'paragraphs' in accordance with the convention that paragraphs of a Schedule should be referred to as 'paragraphs' in accordance with Advice Note 15 paragraph 5.1.</p>

Agenda Item	Topic	Applicant's Response
		<p>The ExA queried whether the procedure in Schedule 2 Part 2 justifies the partial disapplication of the Control of Pollution Act 1974 ("COPA") and the jurisdiction of the Magistrate's Court.</p> <p>The Applicant considers that the drafting does not seek to partially disapply the provisions of the COPA, it simply provides an alternative mechanism to the determination of any appeals. This is consistent with Applicant's confirmation at the hearing about the NSIP regime providing a comprehensive mechanism for the discharge of requirements and related consents. This follows the same mechanism as that applied in The Cleve Hill Solar Park Order 2020.</p> <p>A concern was raised that paragraph 21(1)(d) automatically triggered an appeal. On reviewing, the Applicant disagrees with this. Paragraph 20 contains the procedure for obtaining additional information. 21 will only apply where the Applicant considers an appeal is necessary. It aims to ensure that the ability to make an appeal is established and clear and the Applicant does not believe this should be qualified or that there should be any doubt as to whether the ability to appeal is preserved.</p> <p>The Applicant does not believe that there will be any confusion as to parties to which the appeal process in paragraph 21(2) applies. There are a number of different consultees involved in the development (such as the Environment Agency, the Fire Service, the HSE etc) but the likelihood of any lack of clarity between the parties is low.</p> <p>The ExA queried whether the second sentence of paragraph 21(10) was necessary. Having re-considered this point the Applicant believes this should be retained. It follows the wording in paragraph 11 of the template set out in Appendix 1 of Advice Note 15.</p>

APPENDIX 1

2020 No. 0000

INFRASTRUCTURE PLANNING

The Cleve Hill Solar Park Order 2020

Made - - - - 28th May 2020

Coming into force - - 19th June 2020

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An application has been made to the Secretary of State for an Order under section 37 of the Planning Act 2008 (“the 2008 Act”)(a);

The application was examined by the Examining Authority, which has made a report to the Secretary of State under section 74(2) of the 2008 Act;

The Examining Authority, having considered the application together with the documents that accompanied it, and the representations made and not withdrawn, has, in accordance with section 74 of the 2008 Act made a report and recommendation to the Secretary of State;

The Secretary of State has considered the report and recommendation of the Examining Authority, has taken into account the environmental information in accordance with regulation 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(b) and has had regard to the documents and matters referred to in section 105(2) of the 2008 Act;

The Secretary of State, having decided the application, has determined to make an Order giving effect to the proposals comprised in the application on the terms that in the opinion of the Secretary of State are not materially different from those proposed in the application.

The Secretary of State is satisfied that open space within the Order land, when burdened with any new rights authorised for compulsory acquisition under the terms of this Order, will be no less advantageous than it was before such acquisition, to the persons whom it is vested, other persons, if any, entitled to rights of common or other rights, and the public, and that, accordingly, section 132(3) of the 2008 Act applies.

The Secretary of State, in exercise of the powers conferred by sections 114, 120, 122 and 123 of the 2008 Act makes the following Order—

(a) 2008 c.29. Section 37 was amended by section 137(5) of, and paragraph 5 of Schedule 13 to, the Localism Act 2011 (c.20). Section 74(2) was amended by paragraph 29(3) of that Schedule. Section 105(2) was amended by paragraph 50 of that Schedule. Section 114 was amended by paragraph 55 of Schedule 13 to the Localism Act 2011. Section 120 was amended by section 140 of, and paragraph 60 of Schedule 13 to, that Act.

(b) S.I. 2017/572.

PART 1

PRELIMINARY

Citation and commencement

1. This Order may be cited as the Cleve Hill Solar Park Order and comes into force on 19th June 2020

Interpretation

2.—(1) In this Order—

“the 1961 Act” means the Land Compensation Act 1961(a);

“the 1965 Act” means the Compulsory Purchase Act 1965(b);

“the 1980 Act” means the Highways Act 1980(c);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(d);

“the 1989 Act” means the Electricity Act 1989(e);

“the 1990 Act” means the Town and Country Planning Act 1990(f);

“the 1991 Act” means the New Roads and Street Works Act 1991(g);

“the 2004 Act” means the Energy Act 2004(h);

“the 2008 Act” means the Planning Act 2008(i);

“the 2009 Act” means the Marine and Coastal Access Act 2009(j);

“authorised development” means the development and associated development described in Part 1 of Schedule 1;

“the book of reference” means the book of reference certified by the Secretary of State as the book of reference for the purposes of the Order under article 34 (certification of plans and documents, etc.);

“cable circuits” means an electrical conductor necessary to transmit electricity between two points within the authorised development and may include one or more auxiliary cables for the purpose of gathering monitoring data;

“cable systems” means an electrical conductor comprising a single 400 kilovolt circuit with three conducting cores or similar equivalent design;

“CCTV” means a closed circuit television security system;

“commence”, means, (a) in relation to works seaward of MHWS, the first carrying out of any licensed marine activities authorised by the deemed marine licence, save for pre-construction monitoring surveys approved under the deemed marine licence and (b) in respect of any other works comprised in the authorised development, save for site preparation works, the first carrying out of any material operation (as defined in section 155 of the 2008 Act) forming part of the authorised development and the words “commencement” and “commenced” must be construed accordingly;

(a) 1961 c.33.

(b) 1965 c.56.

(c) 1980 c.66.

(d) 1981 c.66.

(e) 1989 c.29.

(f) 1990 c.8.

(g) 1991 c.22. Section 48(sA) was inserted by section 124 of the Local Transport Act 2008 (C.26). Sections 78(4), 80(4), and 83(4) were amended by section 40 of, and Schedule 1 to, the Traffic Management Act 2004 (c.18).

(h) 2004 c.20.

(i) 2008 c.29.

(j) 2009 c.23.

“construction compound” means a compound including central offices, welfare facilities, accommodation facilities, and storage for construction of the authorised development;

“energy storage” means equipment used for the storage of electrical energy;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.) as supplemented by the documents set out in Schedule 10;

“existing access road” means the existing access road between the existing substation and Seasalter Road;

“existing flood defence” means the existing bund and integrated infrastructure located beneath the path known as the Saxon Shore Way and on the north and west boundaries of the authorised development in Work No. 9;

“existing overhead line” means an 11 kilovolt overhead line owned and operated by UK Power Networks plc located to the south west of Cleve Hill within the Order limits;

“existing substation” means the existing substation at Cleve Hill Faversham ME13 9EF owned and operated by National Grid Electricity Transmission plc;

“highway” and “highway authority” have the same meaning as in the 1980 Act^(a);

“inverter” means electrical equipment fitted to mounting structures required to convert direct current power generated by the solar modules to alternating current;

“land plan” means the plan or plans certified as the land plan or plans by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“the location, order limits and grid coordinates plan” means the plan certified as the location, order limits and grid coordinates plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“maintain” includes inspect, upkeep, repair, adjust, alter, remove, reconstruct and replace to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“MHWS” means the highest level which spring tides reach on average over a period of time;

“MMO” means the Marine Management Organisation, Lancaster House, Hampshire Court, Newcastle upon Tyne, NE4 7YH;

“mounting structure” means a frame or rack made of galvanised steel or other material designed to support the solar modules and inverters and mounted in piles driven into the ground;

“the Order land” means the land shown on the land plans which is within the limits of land to be acquired or used and described in the book of reference;

“the Order limits” means the limits shown on the land plans and works plan within which the authorised development may be carried out and land acquired or used;

“outline battery safety management plan” means the document certified as the outline battery safety management plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.) and which sets out the battery safety management principles to be included in the battery safety management plan pursuant to Requirement 3 of Schedule 1, Part 2;

“outline construction environmental management plan” means the document certified as the outline construction environmental management plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline decommissioning and restoration plan” means the document certified as the outline decommissioning and restoration plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

(a) “highway” is defined in section 328(1) for “highway authority” see section 1.

“outline design principles” means the document certified as the outline design principles by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline ecological management plan” means the document certified as the outline ecological management plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline landscape and biodiversity management plan” means the document certified as the outline landscape and biodiversity management plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline skills, supply chain and employment plan” means the document certified as the outline skills, supply chain and employment plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline special protection area construction noise management plan” means the document certified as the outline special protection area construction noise management plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“outline written scheme of investigation” means the document certified as the outline written scheme of investigation by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“permissive paths” means new access tracks providing restricted public access within the Order limits along the route shown on the rights of way plan;

“relevant planning authority” means the planning authority for the area to which the provision relates;

“requirements” means those matters set out in Part 2 of Schedule 1 (requirements) to this Order;

“rights of way plan” means the plan certified as the rights of way plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“site preparation works” means operations consisting of pre-construction surveys and/or monitoring, site clearance, demolition work, archaeological investigations, environmental surveys, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, the temporary display of site notices or advertisements;

“solar module” means a solar photovoltaic panel designed to convert solar irradiance to electrical energy fitted to mounting structures;

“street” means a street within the meaning of section 48 of the 1991 Act, together with land on the verge of a street or between two carriageways, and includes part of a street;

“streets and access plan” means the plan certified as the streets and access plan by the Secretary of State for the purposes of this Order under article 34 (certification of plans and documents, etc.);

“street authority”, in relation to a street, has the same meaning as in Part 3 of the 1991 Act^(a);

“substation” means a compound, containing electrical equipment required to switch, transform, convert electricity and provide reactive power compensation, with welfare facilities, external landscaping and means of access;

“transformer” means a structure containing electrical switch gear serving to transform electricity generated by the solar modules to a higher voltage;

“undertaker” means Cleve Hill Solar Park Limited (company number 08904850);

(a) “street authority” is defined in section 49, which was amended by paragraph 117 of Schedule 1 to the Infrastructure Act (c.7).

“watercourse” has the meaning given in the Land Drainage Act 1991(a); and

“works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order under article 34 (certification of plans and documents, etc.).

(2) References in this Order to rights over land include references to rights to do or restrain or to place and maintain, anything in, on or under land or in the air-space above its surface and references in this Order to the imposition of restrictive covenants are references to the creation of rights over the land which interfere with the interests or rights of another and are for the benefit of land which is acquired under this Order or which is an interest otherwise comprised in the Order and.

(3) All distances, directions, capacities and lengths referred to in this Order are approximate and distances between points on a work comprised in the authorised development are to be taken to be measured along that work.

(4) Any reference in this Order to a work identified by the number of the work is to be construed as a reference to the work of that number authorised by this Order.

(5) Unless otherwise stated, references in this Order to points identified by letters are to be construed as references to the points so lettered on the works plan.

(6) The expression “includes” is to be construed without limitation unless the contrary intention appears.

PART 2

PRINCIPAL POWERS

Development consent etc. granted by this Order

3.—(1) Subject to the provisions of this Order and the requirements the undertaker is granted development consent for the authorised development to be carried out within the Order limits.

(2) Each numbered work must be situated within the corresponding numbered area shown on the works plan.

Power to maintain authorised development

4.—(1) The undertaker may at any time maintain the authorised development, except to the extent that this Order or an agreement made under this Order provides otherwise.

(2) The power to maintain conferred under paragraph (1) does not relieve the undertaker of any requirement to obtain any further licence under Part 4 (marine licensing) of the 2009 Act for offshore works not covered by the deemed marine licence.

(3) This article only authorises the carrying out of maintenance works within the Order limits.

Consent to transfer benefit of Order

5.—(1) Except as otherwise provided in this Order, the provisions of this Order have effect solely for the benefit of the undertaker.

(2) Subject to paragraph (4), the undertaker may with the written consent of the Secretary of State—

(a) transfer to another person (“the transferee”) any or all of the benefit of the provisions of this Order (including the deemed marine licence, in whole or in part) and such related statutory rights as may be agreed between the undertaker and the transferee; and

(a) 1991 c.59, section 72(1).

(b) grant to another person (“the lessee”) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of this Order (including the deemed marine licences, in whole or in part) and such related statutory rights as may be so agreed, except where paragraph (7) applies, in which case no consent of the Secretary of State is required.

(3) Where an agreement has been made in accordance with paragraph (1) references in this Order to the undertaker, except in paragraphs (6) and (8), are to include references to the transferee or lessee.

(4) The undertaker must consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application.

(5) The Secretary of State must consult the MMO before giving consent to the transfer or grant to another person of the whole or part of the benefit of the provisions of the deemed marine licence.

(6) Where the undertaker has transferred any benefit, or for the duration of any period during which the undertaker has granted any benefit, under paragraph (1)—

- (a) the benefit transferred or granted (“the transferred benefit”) must include any rights that are conferred, and any obligations that are imposed, by virtue of the provisions to which the benefit relates;
- (b) the transferred benefit will reside exclusively with the transferee or, as the case may be, the lessee and the transferred benefit will not be enforceable against the undertaker; and
- (c) the exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) is subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker.

(7) This paragraph applies to any provisions of this Order and its related statutory rights where—

- (a) the transferee or lessee is the holder of a licence under section 6 (licences authorising supply etc) of the 1989 Act; or
- (b) the time limits for claims for compensation in respect of the acquisition of land or effects upon land under this Order have elapsed and—
 - (i) no such claims have been made;
 - (ii) any such claim has been made and has been compromised or withdrawn;
 - (iii) compensation has been paid in final settlement of any such claim;
 - (iv) payment of compensation into court has taken place in lieu of settlement of any such claim; or
 - (v) it has been determined by a tribunal or court of competent jurisdiction in respect of any such claim that no compensation will be payable.

(8) Prior to any transfer or grant under this article taking effect the undertaker must give notice in writing to the Secretary of State and National Grid Electricity Transmission PLC, and if such transfer or grant relates to the exercise of powers in their area, to the MMO and the relevant planning authority.

(9) The notice required under paragraphs (4) and (8) must—

- (a) state—
 - (i) the name and contact details of the person to whom the benefit of the provisions will be transferred or granted;
 - (ii) subject to paragraph (10), the date on which the transfer will take effect;
 - (iii) the provisions to be transferred or granted;
 - (iv) the restrictions, liabilities and obligations that, in accordance with paragraph (6)(c), will apply to the person exercising the powers transferred or granted; and

- (v) where paragraph (7) does not apply, confirmation of the availability and adequacy of funds for compensation associated with the compulsory acquisition of the Order land; and
- (b) be accompanied by—
 - (i) where relevant, a plan showing the works or areas to which the transfer or grant relates; and
 - (ii) a copy of the document effecting the transfer or grant signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted.

(10) The date specified under paragraph (9)(a)(ii) in respect of a notice served in respect of paragraph (8) must not be earlier than the expiry of five days from the date of the receipt of the notice.

(11) The notice given under paragraph (8) must be signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted as specified in that notice.

(12) Sections 72(7) and (8) (variation, suspension, reservation and transfer) of the 2009 Act do not apply to a transfer or grant of the whole or part of the benefit of the provisions of the deemed marine licences to another person by the undertaker pursuant to an agreement under paragraph (1).

(13) The provisions of articles 0 (street works), 10 (temporary stopping up of streets), 16 (compulsory acquisition of land), 18 (compulsory acquisition of rights), 24 (temporary use of land for carrying out the authorised development) and 25 (temporary use of land for maintaining the authorised development) are to have effect only for the benefit of the named undertaker and a person who is a transferee or lessee who is also—

- (a) in respect of Work Nos. 1 to 9 a person who holds a licence under the 1989 Act; or
- (b) in respect of functions under article 0 (street works) relating to street, a street authority.

Application and modification of legislative provisions

6. The provisions of the Neighbourhood Planning Act 2017(a) insofar as they relate to temporary possession of land under articles 24 (temporary use of land for carrying out the authorised development) and 25 (temporary use of land for maintaining the authorised development) of this Order do not apply in relation to the construction of any work or the carrying out of any operation required for the purpose of, or in connection with, the construction, operation or maintenance of any part of the authorised development.

Defence to proceedings in respect of statutory nuisance

7.—(1) Where proceedings are brought under section 82(1) (summary proceedings by a person aggrieved by statutory nuisance) of the Environmental Protection Act 1990(b) in relation to a nuisance falling within paragraph (g) of section 79(1) (noise emitted from premises so as to be prejudicial to health or a nuisance) of that Act no order may be made, and no fine may be imposed, under section 82(2) of that Act if—

- (a) the defendant shows that the nuisance—
 - (i) relates to premises used by the undertaker for the purposes of or in connection with the construction or maintenance of the authorised development and that the nuisance is attributable to the carrying out of the authorised development in accordance with a notice served under section 60 (control of noise on construction site), or a consent given under section 61 (prior consent for work on construction site) or 65 (noise exceeding registered level), of the Control of Pollution Act 1974(c); or

(a) 2017 c.20.

(b) 1990 c.43

(c) 1974 c.40. Sections 61(9) and 65(8) were amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990, c.25. There are other amendments to the 1974 Act which are not relevant to the Order.

- (ii) is a consequence of the construction or maintenance of the authorised development and that it cannot reasonably be avoided; or
- (b) is a consequence of the use of the authorised development and that it cannot reasonably be avoided.

(2) Section 61(9) (consent for work on construction site to include statement that it does not of itself constitute a defence to proceedings under section 82 of the Environmental Protection Act 1990) of the Control of Pollution Act 1974 and section 65(8) of that Act (corresponding provision in relation to consent for registered noise level to be exceeded), do not apply where the consent relates to the use of premises by the undertaker for purposes of, or, in connection with, the construction or maintenance of the authorised development.

PART 3 STREETS

Street works

8.—(1) The undertaker may, for the purposes of the authorised development, enter on so much of any of the streets specified in Schedule 2 (Streets subject to street works) as is within the Order limits and may—

- (a) break up or open the street, or any sewer, drain or tunnel under it;
- (b) drill, tunnel or bore under the street;
- (c) place and keep apparatus under the street;
- (d) maintain apparatus in the street, change its position or remove it;
- (e) repair, replace or otherwise alter the surface or structure of it; and
- (f) execute any works required for or incidental to any works referred to in sub-paragraphs (a) to (d).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act.

(3) In this article “apparatus” has the same meaning as in Part 3 of the 1991 Act.

Application of the 1991 Act

9.—(1) The provisions of the 1991 Act mentioned in paragraph (2) that apply in relation to the carrying out of street works under that Act and any regulations made or code of practice issued or approved under those provisions apply (with all necessary modifications) in relation to—

- (a) the carrying out of works under article 0 (street works); and
- (b) the temporary stopping up, temporary alteration or temporary diversion of a street by the undertaker under article 11 (temporary stopping up of streets),

whether or not the carrying out of the works or the stopping up, alteration or diversion constitutes street works within the meaning of that Act.

(2) The provisions of the 1991 Act(a) are—

- (a) subject to paragraph (3), section 55 (notice of starting date of works);
- (b) section 57 (notice of emergency works);
- (c) section 60 (general duty of undertakers to co-operate);
- (d) section 68 (facilities to be afforded to street authority);

(a) Sections 55, 57, 60, 68 and 69 were amended by the Traffic Management Act 2004 (c.18).

- (e) section 69 (works likely to affect other apparatus in the street);
- (f) section 76 (liability for cost of temporary traffic regulation);
- (g) section 77 (liability for cost of use of alternative route); and
- (h) all provisions of that Act that apply for the purposes of the provisions referred to in subparagraphs (a) to (g).

(3) Section 55 of the 1991 Act as applied by paragraph (2) has effect as if references in section 57 of that Act to emergency works included a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

Temporary stopping up of streets

10.—(1) The undertaker, during and for the purposes of carrying out the authorised development, may temporarily stop up, alter or divert any street and may for any reasonable time—

- (a) divert the traffic or a class of traffic from the street; and
- (b) subject to paragraph (3), prevent all persons from passing along the street.

(2) Without limiting paragraph (1), the undertaker may use any street temporarily stopped up under the powers conferred by this article within the Order limits as a temporary working site.

(3) The undertaker must provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) Without limiting paragraph (1), the undertaker may temporarily stop up, alter or divert the streets set out in column (2) of Schedule 3 (streets to be temporarily stopped up) to the extent specified, by reference to the letters and numbers shown on the streets and access plan, in column (3) of that Schedule.

(5) The undertaker must not temporarily stop up, alter, divert or use as a temporary working site—

- (a) any street referred to in paragraph (4) without first consulting the street authority; and
- (b) any other street without the consent of the street authority, which may attach reasonable conditions to the consent.

(6) Any person who suffers loss by the suspension of any private right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) If a street authority fails to notify the undertaker of its decision within 28 days of receiving an application for consent under paragraph (5)(b) that street authority is deemed to have granted consent.

Temporary stopping up of public rights of way

11. The undertaker may, in connection with the carrying out of the authorised development, temporarily stop up each of the public rights of way specified in column (2) of Schedule 4 (public rights of way to be temporarily stopped up) to the extent specified in column (3), by reference to the letters shown on the rights of way plan.

Agreements with street authorities

12.—(1) A street authority and the undertaker may enter into agreements with respect to—

- (a) any temporary stopping up, alteration or diversion of a street authorised by this Order; or
- (b) the carrying out in the street of any of the works referred to in article 0(1) (street works).

(2) Such agreement may, without prejudice to the generality of paragraph (1)—

- (a) make provision for the street authority to carry out any function under this Order which relates to the street in question;
- (b) include an agreement between the undertaker and street authority specifying a reasonable time for the completion of the works; and
- (c) contain such terms as to payment and otherwise as the parties consider appropriate.

PART 4

SUPPLEMENTAL POWERS

Discharge of water

13.—(1) The undertaker may use any watercourse or any public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised development and for that purpose may lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain subject to the obtaining of consent and approval respectively pursuant to paragraphs (3) and (4) below.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by the undertaker pursuant to paragraph (1) is determined as if it were a dispute under section 106 (right to communicate with public sewers) of the Water Industry Act 1991^(a) (right to communicate with public sewers).

(3) The undertaker must not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to such terms and conditions as that person may reasonably impose, but must not be unreasonably withheld.

(4) The undertaker must not carry out any works to or make any opening into any public sewer or drain pursuant to article 13(1) except—

- (a) in accordance with plans approved by the person to whom the sewer or drain belongs, but such approval must not be unreasonably withheld; and
- (b) where that person has been given the opportunity to supervise the making of the opening.

(5) The undertaker must not, in carrying out or maintaining works pursuant to this article damage or interfere with the bed or banks of any watercourse forming part of a main river.

(6) The undertaker must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain pursuant to this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(7) This article does not authorise the entry into controlled waters of any matter whose entry or discharge into controlled waters is prohibited by regulation 12 (requirement for environmental permit) of the Environmental Permitting (England and Wales) Regulations 2016^(b).

(8) In this article—

- (a) “public sewer or drain” means a sewer or drain which belongs to a sewerage undertaker, the Environment Agency, an internal drainage board or a local authority; and
- (b) other expressions, excluding watercourse, used both in this article and in the Environmental Permitting (England and Wales) Regulations 2016 have the same meaning as in those Regulations.

(9) If a person who receives an application for consent or approval fails to notify the undertaker of a decision within 28 days of receiving an application for consent under paragraph (3) or

(a) 1991 c.56. Section 106 was amended by section 35(8)(a) of the Competition and Service (Utilities) Act 1992 (c.43) and sections 36(2) and 99 of the Water Act 2003 (c.37). There are other amendments to this section which are not relevant to this Order.

(b) S.I. 2016/1154.

approval under paragraph (4)(a) that person is deemed to have granted consent or given approval, as the case may be.

Protective work to buildings

14.—(1) Subject to the following provisions of this article, the undertaker may at its own expense carry out such protective works to any building located within the Order limits as the undertaker considers necessary or expedient.

(2) Protective works may be carried out—

- (a) at any time before or during the construction of any part of the authorised development in the vicinity of the building; or
- (b) after the completion of that part of the authorised development in the vicinity of the building at any time up to the end of the period of five years beginning with the day on which that part of the authorised development is first opened for use.

(3) For the purpose of determining how the powers under this article are to be exercised, the undertaker may enter and survey any building falling within paragraph (1) and any land within its curtilage.

(4) For the purpose of carrying out protective works under this article to a building, the undertaker may (subject to paragraphs (5) and (6))—

- (a) enter the building and any land within its curtilage; and
- (b) where the works cannot be carried out reasonably conveniently without entering land that is adjacent to the building but outside its curtilage, enter the adjacent land (but not any building erected on it) within the Order limits.

(5) Before exercising—

- (a) a power under paragraph (1) to carry out protective works to a building;
- (b) a power under paragraph (3) to enter a building and land within its curtilage;
- (c) a power under paragraph (4)(a) to enter a building and land within its curtilage; or
- (d) a power under paragraph (4)(b) to enter land,

the undertaker must, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of its intention to exercise the power and, in a case falling within sub-paragraph (a), (c), specifying the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question of whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 35 (arbitration).

(7) The undertaker must compensate the owners and occupiers of any building or land in relation to which powers under this article have been exercised for any loss or damage arising to them by reason of the exercise of the powers.

(8) Where—

- (a) protective works are carried out under this article to a building; and
- (b) within the period of five years beginning with the day on which the part of the authorised development carried out in the vicinity of the building is first opened for use it appears that the protective works are inadequate to protect the building against damage caused by the construction, operation or maintenance of that part of the authorised development,

the undertaker must compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Nothing in this article relieves the undertaker from any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act.

(10) Any compensation payable under paragraph (7) or (8) must be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(11) In this article “protective works”, in relation to a building, means—

- (a) underpinning, strengthening and any other works the purpose of which is to prevent damage that may be caused to the building by the construction, operation, maintenance or use of the authorised development; and
- (b) any works the purpose of which is to remedy any damage that has been caused to the building by the construction, operation, maintenance or use of the authorised development.

Authority to survey and investigate the land

15.—(1) The undertaker may for the purposes of this Order enter on any land shown within the Order limits or which may be affected by the authorised development and—

- (a) survey or investigate the land;
- (b) without prejudice to the generality of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
- (c) without prejudice to the generality of sub-paragraph (a), carry out ecological or archaeological investigations on such land; and
- (d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes.

(2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days’ notice has been served on every owner and occupier of the land.

(3) Any person entering land under this article on behalf of the undertaker—

- (a) must, if so required on entering the land, produce written evidence of their authority to do so; and
- (b) may take with them such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes may be made under this article—

- (a) in land held by or in right of the Crown without the consent of the Crown;
- (b) in land located within the highway boundary without the consent of the highway authority; or
- (c) in a private street without the consent of the street authority,

but such consent must not be unreasonably withheld.

(5) The undertaker must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the authority conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(6) If either a highway authority or a street authority which receives an application for consent fails to notify the undertaker of its decision within 28 days of receiving the application for consent—

- (a) under paragraph (4)(b) in the case of a highway authority; or
- (b) under paragraph (4)(c) in the case of a street authority,

that authority is deemed to have granted consent.

(7) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto, or possession of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

PART 5

POWERS OF ACQUISITION

Compulsory acquisition of land

16.—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised development or to facilitate, or is incidental, to it.

(2) This article is subject to paragraph (2) of article 18 (compulsory acquisition of rights) and article 24 (temporary use of land for carrying out the authorised development).

Time limit for exercise of authority to acquire land compulsorily

17.—(1) After the end of the period of 5 years beginning on the day on which this Order is made—

- (a) no notice to treat is to be served under Part 1 (compulsory purchase under Acquisition of Land Act 1946) of the 1965 Act; and
- (b) no declaration is to be executed under section 4 (execution of declaration) of the 1981 Act as applied by article 20 (application of the 1981 Act).

(2) The authority conferred by article 24 (temporary use of land for carrying out the authorised development) ceases at the end of the period referred to in paragraph (1), except that nothing in this paragraph prevents the undertaker remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

Compulsory acquisition of rights

18.—(1) Subject to paragraph (2), the undertaker may acquire compulsorily such rights or impose restrictive covenants over the Order land as may be required for any purpose for which that land may be acquired under article 16 (compulsory acquisition of land), by creating them as well as by acquiring rights already in existence.

(2) Subject to the provisions of this paragraph, article 19 (private rights) and article 26 (statutory undertakers), in the case of the Order land specified in column (1) of Schedule 5 (land in which only new rights etc. may be acquired) the undertaker's powers of compulsory acquisition are limited to the acquisition of such new rights and the imposition of restrictive covenants for the purpose specified in relation to that land in column (2) of that Schedule.

(3) Subject to section 8 (other provisions as to divided land) and Schedule 2A (counter-notice requiring purchase of land) of the 1965 Act (as substituted by paragraph 10 of Schedule 6 (modification of compensation and compulsory purchase enactments for the creation of new rights and imposition of new restrictive covenants), where the undertaker creates or acquires an existing right over land or the benefit of a restrictive covenant under paragraph (1) or (2), the undertaker is not required to acquire a greater interest in that land.

(4) Schedule 6 (modification of compensation and compulsory purchase enactments for creation of new rights and imposition of new restrictive covenants) has effect for the purpose of modifying the enactments relating to compensation and the provisions of the 1965 Act in their application in relation to the compulsory acquisition under this article of a right over land by the creation of a new right or the imposition of restrictive covenants.

(5) In any case where the acquisition of new rights or imposition of a restriction under paragraph (1) or (2) is required for the purpose of diverting, replacing or protecting apparatus of a statutory undertaker, the undertaker may, with the consent of the Secretary of State, transfer the power to acquire such rights to the statutory undertaker in question.

(6) The exercise by a statutory undertaker of any power in accordance with a transfer under paragraph (5) is subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

Private rights

19.—(1) Subject to the provisions of this article, all private rights or restrictive covenants over land subject to compulsory acquisition under article 16 (compulsory acquisition of land) cease to have effect in so far as their continuance would be inconsistent with the exercise of the powers under article 16 (compulsory acquisition of land)—

- (a) as from the date of acquisition of the land by the undertaker, whether compulsorily or by agreement; or
- (b) on the date of entry on the land by the undertaker under section 11(1) (power of entry) of the 1965 Act,

whichever is the earliest.

(2) Subject to the provisions of this article, all private rights or restrictive covenants over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under article 18 (compulsory acquisition of rights) cease to have effect in so far as their continuance would be inconsistent with the exercise of the right or compliance with the restrictive covenant—

- (a) as from the date of the acquisition of the right or the imposition of the restrictive covenant by the undertaker (whether the right is acquired compulsorily, by agreement or through the grant of lease of the land by agreement); or
- (b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act (power of entry) in pursuance of the right,

whichever is the earliest.

(3) Subject to the provisions of this article, all private rights or restrictive covenants over land of which the undertaker takes temporary possession under this Order are suspended and unenforceable, in so far as their continuance would be inconsistent with the purpose for which temporary possession is taken, for as long as the undertaker remains in lawful possession of the land.

(4) Any person who suffers loss by the extinguishment or suspension of any private right or restrictive covenant under this article is entitled to compensation in accordance with the terms of section 152 of the 2008 Act to be determined, in case of dispute, under Part 1 of the 1961 Act.

(5) This article does not apply in relation to any right to which section 138 (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) of the 2008 Act or article 26 (statutory undertakers) applies.

(6) Paragraphs (1) to (3) have effect subject to—

- (a) any notice given by the undertaker before—
 - (i) the completion of the acquisition of the land or the acquisition of rights or the imposition of restrictive covenants over or affecting the land;
 - (ii) the undertaker's appropriation of the land;
 - (iii) the undertaker's entry onto the land; or
 - (iv) the undertaker's taking temporary possession of the land,that any or all of those paragraphs do not apply to any right specified in the notice; or
- (b) any agreement made at any time between the undertaker and the person in or to whom the right in question is vested or belongs.

(7) If an agreement referred to in paragraph (6)(b)—

- (a) is made with a person in or to whom the right is vested or belongs; and
- (b) is expressed to have effect also for the benefit of those deriving title from or under that person,

the agreement is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(8) Reference in this article to private rights over land includes reference to any trusts or incidents to which the land is subject.

Application of the 1981 Act

- 20.**—(1) The 1981 Act applies as if this Order were a compulsory purchase order.
- (2) The 1981 Act, as applied by paragraph (1), has effect with the following modifications.
- (3) In section 1 (application of Act), for subsection 2 substitute—
- “(2) This section applies to any Minister, any local or other public authority or any other body or person authorised to acquire land by means of a compulsory purchase order.”.
- (4) In section 5(2) (earliest date for execution of declaration) omit the words from “and this subsection” to the end.
- (5) Section 5A (time limit for general vesting declaration) is omitted^(a).
- (6) In section 5B(1) (extension of time limit during challenge) for “section 23 (application to High Court in respect of compulsory purchase order) of the Acquisition of Land Act 1981, the three year period mentioned in section 5A” substitute “section 118 (legal challenges relating to applications for orders granting development consent) of the 2008 Act, the five year period mentioned in article 17 (time limit for exercise of authority to acquire land compulsorily) of the Cleve Hill Solar Park Order 2020.”.
- (7) In section 6 (notices after execution of declaration), in subsection (1)(b) for “section 15 of, or paragraph 6 of Schedule 1 to, the Acquisition of Land Act 1981” substitute “section 134 (notice of authorisation of compulsory acquisition) of the Planning Act 2008”.
- (8) In section 7 (constructive notice to treat), in subsection (1)(a), omit the words “(as modified by section 4 of the Acquisition of Land Act 1981)”.
- (9) In Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration), for paragraph 1(2) substitute—
- “(2) But see article 21(3) (acquisition of subsoil only) of the Cleve Hill Solar Park Order 2020, which excludes the acquisition of subsoil only from this Schedule.”.
- (10) References to the 1965 Act in the 1981 Act must be construed as references to the 1965 Act as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act (and as modified by article 22 (modification of Part 1 of the Compulsory Purchase Act 1965) to the compulsory acquisition of land under this Order.

Acquisition of subsoil only

- 21.**—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of the land referred to in paragraph (1) of article 16 (compulsory acquisition of land) or article 18 (compulsory acquisition of rights) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.
- (2) Where the undertaker acquires any part of, or rights in, the subsoil of land under paragraph (1), the undertaker is not required to acquire an interest in any other part of the land.
- (3) The following do not apply in connection with the exercise of the power under paragraph (1) in relation to subsoil only—
- (a) Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act;
 - (b) Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration) to the 1981 Act; and
 - (c) Section 153(4A) (blighted land: proposed acquisition of part interest; material detriment test) of the 1990 Act.
- (4) Paragraphs (2) and (3) are to be disregarded where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

(a) Section 5A to the 1981 Act was inserted by section 182(2) of the Housing and Planning Act 2016 (c.22).

Modification of Part 1 of the Compulsory Purchase Act 1965

22.—(1) Part 1 (compulsory acquisition under Acquisition of Land Act 1946) of the 1965 Act, as applied to this Order by section 125 (application of compulsory acquisition provisions) of the 2008 Act, is modified as follows.

(2) In section 4A(1) (extension of time limit during challenge)—
for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order), the three year period mentioned in section 4” substitute “section 118 of the 2008 Act (legal challenges relating to applications for orders granting development consent), the five year period mentioned in article 17 (time limit for exercise of authority to acquire land compulsorily) of the Cleve Hill Solar Park Order 2020”.

(3) In section 11A (powers of entry: further notice of entry)—

- (a) in subsection (1)(a), after “land” insert “under that provision”; and
- (b) in subsection (2), after “land” insert “under that provision”.

(4) In section 22(2) (expiry of time limit for exercise of compulsory purchase power not to affect acquisition of interests omitted from purchase), for “section 4 of this Act” substitute “article 17 (time limit for exercise of authority to acquire land compulsorily) of the Cleve Hill Solar Park Order 2020”.

(5) In Schedule 2A (counter-notice requiring purchase of land not in notice to treat)—

(a) for paragraphs 1(2) and 14(2) substitute—

“(2) But see article 21(3) (acquisition of subsoil only) of the Cleve Hill Solar Park Order 2020, which excludes the acquisition of subsoil only from this Schedule”; and

(b) after paragraph 29 insert—

“PART 4

INTERPRETATION

30. In this Schedule, references to entering on and taking possession of land do not include doing so under article 14 (protective works to buildings), article 24 (temporary use of land for carrying out the authorised development) or article 25 (temporary use of land for maintaining the authorised development) of the Cleve Hill Solar Park Order 2020.”.

Rights under or over streets

23.—(1) The undertaker may enter on, appropriate and use so much of the subsoil of or air-space over any street within the Order limits as may be required for the purposes of the authorised development and may use the subsoil or air-space for those purposes or any other purpose ancillary to the authorised development.

(2) Subject to paragraph (3), the undertaker may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) does not apply in relation to—

- (a) any subway or underground building; or
- (b) any cellar, vault, arch or other construction in, on or under a street which forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land appropriated under paragraph (1) without the undertaker acquiring any part of that person’s interest in the land, and who suffers loss as a result, is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) Compensation is not payable under paragraph (4) to any person who is an undertaker to whom section 85 (sharing cost of necessary measures) of the 1991 Act applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

Temporary use of land for carrying out the authorised development

24.—(1) The undertaker may, in connection with the carrying out of the authorised development—

- (a) enter on and take temporary possession of any of the Order land in respect of which no notice of entry has been served under section 11 (powers of entry) of the 1965 Act and no declaration has been made under section 4 (execution of declaration) of the 1981 Act;
- (b) remove any buildings, agricultural plant and apparatus, drainage, fences, debris and vegetation from that land;
- (c) construct temporary works, haul roads, security fencing, bridges, structures and buildings on that land;
- (d) use the land for the purposes of a temporary working site with access to the working site in connection with the authorised development;
- (e) construct any works, on that land as are mentioned in Part 1 of Schedule 1 (authorised development); and
- (f) carry out mitigation works required pursuant to the requirements in Schedule 1.

(2) Not less than 14 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(3) The undertaker must not remain in possession of any land under this article for longer than reasonably necessary and in any event must not, without the agreement of the owners of the land, remain in possession of any land under this article after the end of the period of one year beginning with the date of completion of the part of the authorised development for which temporary possession of the land was taken unless the undertaker has, before the end of that period, served a notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act in relation to that land.

(4) Unless the undertaker has served notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act or otherwise acquired the land or rights over land subject to temporary possession, the undertaker must before giving up possession of land of which temporary possession has been taken under this article, remove all works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker is not required to—

- (a) replace any building, structure, drain or electric line removed under this article;
- (b) remove any drainage works installed by the undertaker under this article;
- (c) remove any new road surface or other improvements carried out under this article to any street specified in Schedule 2 (streets subject to street works); or
- (d) restore the land on which any works have been carried out under paragraph (1)(f) insofar as the works relate to mitigation works identified in the environmental statement or required pursuant to the requirements in Schedule 1.

(5) The undertaker must pay compensation to the owners and occupiers of land which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of any power conferred by this article.

(6) Any dispute as to a person's entitlement to compensation under paragraph (5), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the carrying out of the authorised development, other than loss or damage for which compensation is payable under paragraph (5).

(8) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(9) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

Temporary use of land for maintaining authorised development

25.—(1) Subject to paragraph (2), at any time during the maintenance period (as defined in paragraph (11)) relating to any part of the authorised development, the undertaker may—

- (a) enter on and take temporary possession of any land within the Order land if such possession is reasonably required for the purpose of maintaining the authorised development; and
- (b) construct such temporary works and buildings on the land as may be reasonably necessary for that purpose.

(2) Paragraph (1) does not authorise the undertaker to take temporary possession of—

- (a) any house or garden belonging to a house; or
- (b) any building (other than a house) if it is for the time being occupied.

(3) Not less than 28 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(4) The undertaker may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised development for which possession of the land was taken.

(5) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(6) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(7) Any dispute as to a person's entitlement to compensation under paragraph (6), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(8) Nothing in this article affects any liability to pay compensation under section 152 of the 2008 Act (compensation in case where no right to claim in nuisance) or under any other enactment in respect of loss or damage arising from the maintenance of the authorised development, other than loss or damage for which compensation is payable under paragraph (6).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(11) In this article “the maintenance period” means the period of 5 years beginning with the date on which a phase of the authorised development first exports electricity to the national electricity transmission network.

Statutory undertakers

26. Subject to the provisions of Schedule 7 (protective provisions) the undertaker may—

- (a) acquire compulsorily, or acquire new rights or impose restrictive covenants over, the land belonging to statutory undertakers shown on the land plan (as certified by the Secretary of State in accordance with article 34) within the Order land; and
- (b) extinguish the rights of, remove, relocate the rights of or reposition the apparatus belonging to statutory undertakers over or within the Order land.

Recovery of costs of new connections

27.—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 26 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) does not apply in the case of the removal of a public sewer but where such a sewer is removed under article 26 (statutory undertakers), any person who is—

- (a) the owner or occupier of premises the drains of which communicated with that sewer; or
- (b) the owner of a private sewer which communicated with that sewer,

is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewerage disposal plant.

(3) This article does not have effect in relation to apparatus to which Part 3 (street works in England and Wales) of the 1991 Act applies.

(4) In this article—

“public communications provider” has the same meaning as in section 151(1) (interpretation of Chapter 1) of the Communications Act 2003(a); and

“public utility undertaker” has the same meaning as in the 1980 Act.

PART 6

OPERATIONS

Operation of generating stations

28.—(1) The undertaker is authorised to use and operate the generating stations comprised in the authorised development.

(2) This article does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required from time to time to authorise the operation of an electricity generating station.

Deemed marine licence under the 2009 Act

29. The deemed marine licence set out in Schedule 8 (deemed marine licence under the 2009 Act), is deemed to be granted on the date this Order comes into force to the undertaker under Part 4 (marine licensing) of the 2009 Act for the licensed marine activities set out in Part 1, and subject to the conditions set out in Part 2 of that Schedule.

(a) 2003 c.21

PART 7
MISCELLANEOUS AND GENERAL

Application of landlord and tenant law

30.—(1) This article applies to—

- (a) any agreement for leasing to any person the whole or any part of the authorised development or the right to operate the same; and
- (b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the authorised development, or any part of it,

so far as any such agreement relates to the terms on which any land which is the subject of a lease granted by or under that agreement is to be provided for that person's use.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants may prejudice the operation of any agreement to which this article applies.

(3) Accordingly, no such enactment or rule of law to which paragraph (2) applies in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

- (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;
- (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land which is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or
- (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

Operational land for purposes of the 1990 Act

31. Development consent granted by this Order is treated as specific planning permission for the purposes of section 264(3)(a) (cases in which land is to be treated as operational land for the purposes of that Act) of the 1990 Act.

Felling or lopping of trees

32.—(1) The undertaker may fell or lop any tree or shrub near any part of the authorised development, or cut back its roots, if it reasonably believes it to be necessary to do so to prevent the tree or shrub from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development.

(2) In carrying out any activity authorised by paragraph (1), the undertaker must not do any unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, must be determined under Part 1 of the 1961 Act.

Trees subject to tree preservation orders

33.—(1) The undertaker may fell or lop any tree within or overhanging land within the Order limits subject to a tree preservation order or cut back its roots, if it reasonably believes it to be necessary to do so in order to prevent the tree from obstructing or interfering with the construction, maintenance or operation of the authorised development or any apparatus used in connection with the authorised development.

(2) In carrying out any activity authorised by paragraph (1)—

- (a) the undertaker must do no unnecessary damage to any tree and must pay compensation to any person for any loss or damage arising from such activity; and
- (b) the duty contained in section 206(1) (replacement of trees) of the 1990 Act does not apply.

(3) The authority given by paragraph (1) constitutes a deemed consent under the relevant tree preservation order.

(4) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, will be determined under Part 1 of the 1961 Act.

Certification of plans and documents, etc.

34.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

- (a) the book of reference;
- (b) the Crown land plan;
- (c) the environmental statement;
- (d) the land plans;
- (e) the location, order limits and grid coordinates plans;
- (f) the outline battery safety management plan;
- (g) the outline construction environmental management plan;
- (h) the outline decommissioning and restoration plan;
- (i) the outline design principles;
- (j) the outline landscape and biodiversity management plan;
- (k) the outline special protection area construction noise management plan;
- (l) outline skills, supply chain and employment plan;
- (m) the outline written scheme of investigation;
- (n) the rights of way plan;
- (o) the special category land plan – open space;
- (p) the statutory / non-statutory nature conservation designations plan;
- (q) the statutory / non-statutory historic environment designations plan;
- (r) the streets and access plan;
- (s) the water bodies in a river basin management plan; and
- (t) the works plan;

for certification that they are true copies of those plans and documents.

(2) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.

Arbitration

35.—(1) Any difference under any provision of this Order, unless otherwise provided for, is to be referred to and settled in arbitration in accordance with the rules set out in Schedule 9 (arbitration rules) of this Order, by a single arbitrator to be agreed upon by the parties, within 14 days of receipt of the notice of arbitration, or if the parties fail to agree within the time period stipulated, to be appointed on application of either party (after giving written notice to the other) by the Secretary of State.

Requirements, appeals, etc.

36.—(1) Where an application is made to, or a request is made of, the relevant planning authority or any other relevant person for any agreement or approval required or contemplated by any of the provisions of this Order, such agreement or approval must, if given, be given in writing and must not be unreasonably withheld or delayed.

(2) Part 3 (procedure for discharge of requirements) of Schedule 1 has effect in relation to all agreements or approvals granted, refused or withheld in relation to requirements included in Part 2 of that Schedule.

Crown rights

37.—(1) Nothing in this Order affects prejudicially any estate, right, power, privilege, authority or exemption of the Crown and in particular, nothing in this Order authorises the undertaker or any licensee to take possession of, use, enter upon or in any manner interfere with any land or rights of any description (including any portion of the shore or bed of the sea or any river, channel, creek, bay or estuary)—

- (a) belonging to Her Majesty in right of the Crown and forming part of the Crown Estate without the consent in writing of the Crown Estate Commissioners;
- (b) belonging to Her Majesty in right of the Crown and not forming part of the Crown Estate without the consent in writing of the government department having the management of that land; or
- (c) belonging to a government department or held in trust for Her Majesty for the purposes of a government department without the consent in writing of that government department.

(2) Paragraph (1) does not apply to the exercise of any right under this Order for the compulsory acquisition of an interest in any Crown land (as defined in the 2008 Act) which is for the time being held otherwise than by or on behalf of the Crown.

(3) A consent under paragraph (1) may be given unconditionally or subject to terms and conditions and is deemed to have been given in writing where it is sent electronically.

Protective provisions

38. Schedule 7 (protective provisions) has effect.

Funding

39.—(1) The undertaker must not exercise the powers conferred by the provisions referred to in paragraph (2) in relation to any Order land unless it has first put in place either—

- (a) a guarantee and the amount of that guarantee approved by the Secretary of State in respect of the liabilities of the undertaker to pay compensation pursuant to the provisions referred to in paragraph (2); or
- (b) an alternative form of security and the amount of that security for that purpose approved by the Secretary of State in respect of the liabilities of the undertaker to pay compensation pursuant to the provisions referred to in paragraph (2).

(2) The provisions are—

- (a) article 16 (compulsory acquisition of land);
- (b) article 18 (compulsory acquisition of rights);
- (c) article 19 (private rights);
- (d) article 21 (acquisition of subsoil only);
- (e) article 23 (rights under or over streets);
- (f) article 24 (temporary use of land for carrying out the authorised development);
- (g) article 25 (temporary use of land for maintaining the authorised development); and

(h) article 26 (statutory undertakers).

(3) A guarantee or alternative form of security given in respect of any liability of the undertaker to pay compensation pursuant to the provisions referred to in paragraph (2) is to be treated as enforceable against the guarantor or person providing the alternative form of security by any person to whom such compensation is payable and must be in such a form as to be capable of enforcement by such a person.

(4) Nothing in this article requires a guarantee or alternative form of security to be in place for more than 15 years after the date on which the relevant power is exercised.

Signed by Authority of the Secretary of State for Business, Energy and Industrial Strategy

28th May 2020

Gareth Leigh
Head of Energy Infrastructure Planning
Department for Business, Energy and Industrial Strategy

SCHEDULE 1

Article 3

AUTHORISED DEVELOPMENT

PART 1

AUTHORISED DEVELOPMENT

1. In the Districts of Swale and Canterbury in the County of Kent a nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act and associated development under section 115(1)(b) of the 2008 Act.

The nationally significant infrastructure project comprises up to two generating stations with a combined gross electrical output capacity of over 50 megawatts comprising all or any of the work numbers in this Schedule or any part of any work number in this Schedule—

Work No.1— a ground mounted solar photovoltaic generating station with a gross electrical output capacity of over 50 megawatts comprising—

- (a) solar modules;
- (b) inverters;
- (c) transformers; and
- (d) a network of cable circuits.

Work No.2— works comprising either—

- (a) an energy storage facility with a gross storage capacity of over 50 megawatts comprising—
 - (i) energy storage;
 - (ii) transformers;
 - (iii) switch gear and ancillary equipment;
 - (iv) a network of cable circuits;
 - (v) cables connecting to Work Nos. 1 and 3; and
 - (vi) a flood protection bund; or
- (b) an extension of the ground mounted solar photovoltaic generating station in Work No.1 and comprising—
 - (i) solar modules;
 - (ii) inverters;
 - (iii) transformers;
 - (iv) electrical underground cables connecting to Work Nos. 1 and 3;
 - (v) a network of cable circuits; and
 - (vi) a flood protection bund,

and associated development within the meaning of section 115(2) of the 2008 Act comprising—

Work No.3— a substation with works comprising—

- (a) a network of cable circuits;
- (b) electrical underground cables connecting to Work Nos 1 and 2, and the existing substation;
- (c) construction compounds; and
- (d) a flood protection bund.

Work No.4— works comprising—

- (a) a network of cable circuits;
- (b) construction compounds;
- (c) landscaping;
- (d) earthworks;
- (e) drainage; and
- (f) undergrounding of existing overhead line.

Work No.5— works to lay cable systems connecting Work No. 3 and the existing substation and works to create and maintain means of access connecting to the existing access road in Work No. 7;

Work No.6— works to create and maintain a means of access connecting Work Nos 1, 2 and 3 with the existing access road in Work No. 7;

Work No.7— works to alter and maintain the existing access road;

Work No.8— works to create and maintain a habitat management area, comprising—

- (a) earth works;
- (b) means of access; and
- (c) drainage;

Work No.9— works to maintain the existing flood defence, comprising—

- (a) inspection;
- (b) investigation (above MHWS, inclusive of trial pitting);
- (c) replacement of expansion joint material;
- (d) concrete repair (to a standard specified in BS EN 1504);
- (e) replacement of concrete toe beam;
- (f) vegetation management (including grass cutting and removal of larger vegetation);
- (g) replacement of loose and missing block work;
- (h) repair of voids;
- (i) fencing repair and replacement;
- (j) servicing outfalls;
- (k) cleaning outfall ancillary structures;
- (l) topping up of embankment crest levels at localised low spots;
- (m) vermin control;
- (n) repairs of rutting in crest;
- (o) repointing of jointed structures;
- (p) replacing modular blocks;
- (q) replacement of toe armour as required;
- (r) reinstatement of timber toe piles;
- (s) timber groyne plank replacement;
- (t) replacement of bolts on groyne;
- (u) placement of timber rubbing boards on groyne;
- (v) localised movements of beach material;
- (w) cleaning/dredging of drainage ditch channels;
- (x) replacement of pitching where present;
- (y) replacement of access structures;

- (z) painting; and
- (aa) any other activities required to be undertaken which—
 - (i) use the same materials as those on the existing flood defence;
 - (ii) do not alter the plan form or cross section of the existing flood defence;
 - (iii) do not provide an overall increase or reduction in flood level; and
 - (iv) do not require excavations of beach material deeper than 1.5 metres.

In connection with such Work Nos. 1 to 9 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed by the environmental statement, including—

- (a) works for the provision of fencing and security measures such as CCTV and lighting;
- (b) laying down of internal access tracks;
- (c) ramps, means of access and footpaths;
- (d) bunds, embankments, and swales;
- (e) boundary treatments, including means of enclosure;
- (f) laying out and surfacing of permissive paths, including the laying and construction of drainage infrastructure, signage and information boards;
- (g) habitat creation and management, including earthworks, landscaping, means of enclosure, and the laying and construction of drainage infrastructure;
- (h) jointing bays, cable ducts, cable protection, joint protection, manholes, kiosks, marker posts, underground cable marker, tiles and tape, and lighting and other works associated with cable laying;
- (i) works for the provision of apparatus including cabling, water supply works, foul drainage provision, surface water management systems and culverting;
- (j) works to alter the position of apparatus, including mains, sewers, drains and cables;
- (k) works to alter the course of, or otherwise interfere with, non-navigable rivers, streams or watercourses;
- (l) landscaping and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised development;
- (m) works for the benefit or protection of land affected by the authorised development; and
- (n) working sites in connection with the construction of the authorised development, construction lay down areas and compounds, storage compounds and their restoration.

2. The grid coordinates for that part of the authorised development which is seaward of MHWS are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 19' 56.946" N	0° 54' 46.089" E	100	51° 20' 32.408" N	0° 54' 7.763" E
2	51° 19' 58.535" N	0° 54' 45.298" E	101	51° 20' 33.143" N	0° 54' 9.545" E
3	51° 19' 58.708" N	0° 54' 45.201" E	102	51° 20' 34.285" N	0° 54' 13.532" E
4	51° 19' 59.027" N	0° 54' 45.080" E	103	51° 20' 35.087" N	0° 54' 17.689" E
5	51° 19' 59.384" N	0° 54' 44.724" E	104	51° 20' 35.317" N	0° 54' 21.662" E
6	51° 19' 59.960" N	0° 54' 44.350" E	105	51° 20' 37.215" N	0° 54' 36.902" E
7	51° 20' 1.300" N	0° 54' 43.858" E	106	51° 20' 37.791" N	0° 54' 38.342" E
8	51° 20' 2.911" N	0° 54' 42.665" E	107	51° 20' 37.114" N	0° 54' 46.675" E
9	51° 20' 3.116" N	0° 54' 42.384" E	108	51° 20' 37.181" N	0° 54' 46.705" E
10	51° 20' 4.788" N	0° 54' 40.819" E	109	51° 20' 37.035" N	0° 54' 49.041" E

11	51° 20' 4.959" N	0° 54' 40.563" E	110	51° 20' 36.955" N	0° 54' 49.652" E
12	51° 20' 5.438" N	0° 54' 40.227" E	111	51° 20' 36.954" N	0° 54' 49.874" E
13	51° 20' 6.231" N	0° 54' 38.746" E	112	51° 20' 36.983" N	0° 54' 50.130" E
14	51° 20' 6.637" N	0° 54' 38.090" E	113	51° 20' 36.985" N	0° 54' 50.419" E
15	51° 20' 7.311" N	0° 54' 36.551" E	114	51° 20' 36.920" N	0° 54' 50.652" E
16	51° 20' 7.817" N	0° 54' 35.012" E	115	51° 20' 37.006" N	0° 54' 51.158" E
17	51° 20' 8.559" N	0° 54' 30.512" E	116	51° 20' 37.215" N	0° 54' 50.375" E
18	51° 20' 8.713" N	0° 54' 28.690" E	117	51° 20' 37.673" N	0° 54' 46.063" E
19	51° 20' 8.886" N	0° 54' 27.093" E	118	51° 20' 38.109" N	0° 54' 39.463" E
20	51° 20' 8.229" N	0° 54' 29.798" E	119	51° 20' 36.284" N	0° 54' 26.251" E
21	51° 20' 7.773" N	0° 54' 32.964" E	120	51° 20' 35.445" N	0° 54' 16.667" E
22	51° 20' 6.916" N	0° 54' 36.190" E	121	51° 20' 34.876" N	0° 54' 13.691" E
23	51° 20' 5.271" N	0° 54' 39.948" E	122	51° 20' 33.400" N	0° 54' 8.742" E
24	51° 20' 1.514" N	0° 54' 43.309" E	123	51° 20' 32.885" N	0° 54' 7.478" E
25	51° 19' 59.852" N	0° 54' 43.782" E	124	51° 20' 32.714" N	0° 54' 5.934" E
26	51° 20' 11.941" N	0° 54' 13.217" E	125	51° 20' 32.081" N	0° 54' 3.003" E
27	51° 20' 11.877" N	0° 54' 12.095" E	126	51° 20' 36.869" N	0° 54' 51.672" E
28	51° 20' 11.663" N	0° 54' 10.398" E	127	51° 20' 36.819" N	0° 54' 51.640" E
29	51° 20' 11.436" N	0° 54' 9.385" E	128	51° 20' 36.762" N	0° 54' 51.642" E
30	51° 20' 10.399" N	0° 54' 6.406" E	129	51° 20' 36.711" N	0° 54' 51.724" E
31	51° 20' 10.522" N	0° 54' 7.338" E	130	51° 20' 36.674" N	0° 54' 51.969" E
32	51° 20' 10.085" N	0° 53' 46.895" E	131	51° 20' 36.662" N	0° 54' 52.243" E
33	51° 20' 10.324" N	0° 53' 47.052" E	132	51° 20' 36.643" N	0° 54' 52.308" E
34	51° 20' 10.497" N	0° 53' 47.265" E	133	51° 20' 36.557" N	0° 54' 52.486" E
35	51° 20' 10.555" N	0° 53' 47.377" E	134	51° 20' 36.597" N	0° 54' 52.469" E
36	51° 20' 10.609" N	0° 53' 47.678" E	135	51° 20' 36.651" N	0° 54' 52.486" E
37	51° 20' 10.685" N	0° 53' 56.589" E	136	51° 20' 42.418" N	0° 55' 36.744" E
38	51° 20' 10.577" N	0° 53' 57.633" E	137	51° 20' 42.431" N	0° 55' 37.288" E
39	51° 20' 10.677" N	0° 53' 57.274" E	138	51° 20' 42.700" N	0° 55' 40.210" E
40	51° 20' 10.741" N	0° 53' 56.919" E	139	51° 20' 42.775" N	0° 55' 40.607" E
41	51° 20' 10.759" N	0° 53' 56.703" E	140	51° 20' 42.916" N	0° 55' 40.911" E
42	51° 20' 10.691" N	0° 53' 47.644" E	141	51° 20' 42.913" N	0° 55' 41.691" E
43	51° 20' 10.658" N	0° 53' 47.286" E	142	51° 20' 43.090" N	0° 55' 42.369" E
44	51° 20' 10.631" N	0° 53' 47.191" E	143	51° 20' 43.208" N	0° 55' 42.254" E
45	51° 20' 10.417" N	0° 53' 46.970" E	144	51° 20' 43.241" N	0° 55' 43.046" E
46	51° 20' 10.380" N	0° 53' 46.880" E	145	51° 20' 43.362" N	0° 55' 43.772" E
47	51° 20' 10.348" N	0° 53' 46.718" E	146	51° 20' 43.555" N	0° 55' 43.598" E
48	51° 20' 10.380" N	0° 53' 46.503" E	147	51° 20' 43.523" N	0° 55' 44.092" E
49	51° 20' 10.447" N	0° 53' 46.302" E	148	51° 20' 43.570" N	0° 55' 44.669" E
50	51° 20' 27.907" N	0° 53' 46.744" E	149	51° 20' 43.671" N	0° 55' 45.270" E
51	51° 20' 27.862" N	0° 53' 47.043" E	150	51° 20' 43.799" N	0° 55' 45.070" E
52	51° 20' 27.876" N	0° 53' 47.230" E	151	51° 20' 43.780" N	0° 55' 45.567" E
53	51° 20' 27.830" N	0° 53' 47.672" E	152	51° 20' 43.948" N	0° 55' 46.756" E
54	51° 20' 27.699" N	0° 53' 48.253" E	153	51° 20' 44.306" N	0° 55' 48.368" E
55	51° 20' 27.585" N	0° 53' 48.411" E	154	51° 20' 44.687" N	0° 55' 49.791" E
56	51° 20' 27.555" N	0° 53' 48.435" E	155	51° 20' 45.757" N	0° 55' 54.594" E
57	51° 20' 27.538" N	0° 53' 48.625" E	156	51° 20' 47.241" N	0° 56' 2.207" E
58	51° 20' 27.517" N	0° 53' 48.660" E	157	51° 20' 47.983" N	0° 56' 6.651" E

59	51° 20' 27.406" N	0° 53' 48.710" E	158	51° 20' 48.152" N	0° 56' 6.491" E
60	51° 20' 27.376" N	0° 53' 48.744" E	159	51° 20' 48.092" N	0° 56' 6.958" E
61	51° 20' 27.358" N	0° 53' 48.805" E	160	51° 20' 48.096" N	0° 56' 7.304" E
62	51° 20' 27.357" N	0° 53' 48.852" E	161	51° 20' 48.226" N	0° 56' 7.918" E
63	51° 20' 27.320" N	0° 53' 49.159" E	162	51° 20' 48.436" N	0° 56' 7.698" E
64	51° 20' 27.275" N	0° 53' 49.275" E	163	51° 20' 48.394" N	0° 56' 8.208" E
65	51° 20' 27.252" N	0° 53' 49.310" E	164	51° 20' 48.416" N	0° 56' 8.607" E
66	51° 20' 27.112" N	0° 53' 49.343" E	165	51° 20' 48.474" N	0° 56' 8.816" E
67	51° 20' 27.084" N	0° 53' 49.434" E	166	51° 20' 48.520" N	0° 56' 8.981" E
68	51° 20' 27.059" N	0° 53' 49.665" E	167	51° 20' 48.530" N	0° 56' 9.101" E
69	51° 20' 27.036" N	0° 53' 49.798" E	168	51° 20' 48.516" N	0° 56' 9.227" E
70	51° 20' 26.925" N	0° 53' 50.097" E	169	51° 20' 48.514" N	0° 56' 9.358" E
71	51° 20' 26.949" N	0° 53' 50.133" E	170	51° 20' 48.592" N	0° 56' 9.802" E
72	51° 20' 27.049" N	0° 53' 49.908" E	171	51° 20' 48.676" N	0° 56' 10.128" E
73	51° 20' 27.113" N	0° 53' 49.705" E	172	51° 20' 48.616" N	0° 56' 7.869" E
74	51° 20' 27.164" N	0° 53' 49.465" E	173	51° 20' 48.857" N	0° 56' 14.026" E
75	51° 20' 27.246" N	0° 53' 49.429" E	174	51° 20' 48.852" N	0° 56' 14.100" E
76	51° 20' 27.272" N	0° 53' 49.410" E	175	51° 20' 48.844" N	0° 56' 14.168" E
77	51° 20' 27.326" N	0° 53' 49.330" E	176	51° 20' 48.807" N	0° 56' 14.326" E
78	51° 20' 27.347" N	0° 53' 49.270" E	177	51° 20' 48.722" N	0° 56' 14.640" E
79	51° 20' 27.374" N	0° 53' 49.080" E	178	51° 20' 48.645" N	0° 56' 15.364" E
80	51° 20' 27.403" N	0° 53' 48.953" E	179	51° 20' 48.916" N	0° 56' 17.077" E
81	51° 20' 27.459" N	0° 53' 48.796" E	180	51° 20' 44.526" N	0° 56' 52.481" E
82	51° 20' 27.534" N	0° 53' 48.775" E	181	51° 20' 44.523" N	0° 56' 53.111" E
83	51° 20' 27.577" N	0° 53' 48.731" E	182	51° 20' 44.613" N	0° 56' 53.520" E
84	51° 20' 27.605" N	0° 53' 48.666" E	183	51° 20' 44.607" N	0° 56' 53.654" E
85	51° 20' 27.622" N	0° 53' 48.491" E	184	51° 20' 44.472" N	0° 56' 54.152" E
86	51° 20' 27.695" N	0° 53' 48.408" E	185	51° 20' 44.365" N	0° 56' 54.631" E
87	51° 20' 27.763" N	0° 53' 48.293" E	186	51° 20' 44.337" N	0° 56' 54.961" E
88	51° 20' 27.942" N	0° 53' 47.338" E	187	51° 20' 44.341" N	0° 56' 55.338" E
89	51° 20' 27.948" N	0° 53' 47.235" E	188	51° 20' 44.188" N	0° 56' 56.399" E
90	51° 20' 27.910" N	0° 53' 47.165" E	189	51° 20' 44.193" N	0° 56' 56.709" E
91	51° 20' 27.920" N	0° 53' 47.052" E	190	51° 20' 44.268" N	0° 56' 57.174" E
92	51° 20' 27.939" N	0° 53' 46.941" E	191	51° 20' 49.033" N	0° 56' 20.247" E
93	51° 20' 27.963" N	0° 53' 46.853" E	192	51° 20' 48.835" N	0° 56' 14.262" E
94	51° 20' 27.997" N	0° 53' 46.798" E	193	51° 20' 48.854" N	0° 56' 14.137" E
95	51° 20' 30.414" N	0° 53' 56.932" E	194	51° 20' 48.859" N	0° 56' 14.060" E
96	51° 20' 30.486" N	0° 53' 58.149" E	195	51° 20' 47.432" N	0° 56' 30.037" E
97	51° 20' 30.389" N	0° 53' 58.557" E	196	51° 20' 47.356" N	0° 56' 30.457" E
98	51° 20' 31.727" N	0° 54' 3.734" E	197	51° 20' 46.743" N	0° 56' 35.249" E
99	51° 20' 32.193" N	0° 54' 5.976" E	198	51° 20' 46.536" N	0° 56' 37.296" E

PART 2 REQUIREMENTS

Time limits

1. The authorised development must commence no later than the expiration of five years beginning with the date this Order comes into force.

Detailed design approval

2.—(1) No phase of the authorised development may commence until details of—

- (a) the layout;
- (b) scale;
- (c) proposed finished ground levels;
- (d) external appearance;
- (e) hard surfacing materials;
- (f) vehicular and pedestrian access, parking and circulation areas;
- (g) refuse or other storage units, signs and lighting;
- (h) drainage, water, power and communications cables and pipelines;
- (i) programme for landscaping works; and
- (j) fencing,

relating to that phase have been submitted to and approved in writing by the relevant planning authority.

(2) The details submitted must accord with—

- (a) the location, order limits and grid coordinates plan;
- (b) the works plan;
- (c) the principles and assessments set out in the environmental statement; and
- (d) the outline design principles, or such variation thereof as may be approved by the relevant planning authority pursuant to requirement 19.

(3) The authorised development must be carried out in accordance with the approved details.

Battery safety management

3.—(1) Work No. 2(a) must not commence until a Battery Safety Management Plan (“BSMP”) has been submitted to and approved by the relevant planning authority.

(2) The BSMP must prescribe measures to facilitate safety during the construction, operation and decommissioning of Work No.2(a) including the transportation of new, used and replacement battery cells both to and from the authorised development.

(3) The BSMP must accord with the outline battery safety management plan.

(4) The relevant planning authority must consult with the Health and Safety Executive and Kent Fire and Rescue Service before determining an application for approval of the BSMP.

(5) The BSMP must be implemented as approved.

Phases of authorised development

4.—(1) The authorised development may not be commenced until a written scheme setting out the phases of construction of the authorised development has been submitted to and approved by the relevant planning authority.

(2) The scheme must be implemented as approved.

Landscape and biodiversity management plan

5.—(1) No phase of the authorised development may commence until a written landscape and biodiversity management plan (which accords with the outline landscape and biodiversity management plan) has been submitted to and approved by the relevant planning authority in consultation with Natural England.

(2) The landscape and biodiversity management plan must be implemented as approved.

Implementation and maintenance of landscaping

6.—(1) All landscaping works must be carried out in accordance with the landscape and biodiversity management plan approved under requirement 5 (landscape and biodiversity management plan), and in accordance with the relevant recommendations of appropriate British Standards.

(2) Any tree or shrub planted as part of an approved landscaping management scheme that, within a period of five years after planting, is removed, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased must be replaced in the first available planting season with a specimen of the same species and size as that originally planted.

Public rights of way diversions

7.—(1) No phase of the authorised development may commence until a public rights of way management plan for any sections of public rights of way shown to be temporarily closed on the access and rights of way plans for that phase has been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority.

(2) The plan must include details of—

- (a) measures to minimise the length of any sections of public rights of way to be temporarily closed; and
- (b) advance publicity and signage in respect of any sections of public rights of way to be temporarily closed.

(3) The plan must be implemented as approved unless otherwise agreed with the relevant planning authority in consultation with the highway authority.

Fencing and other means of enclosure

8.—(1) No phase of the authorised development may commence until written details of all proposed permanent and temporary fences, walls or other means of enclosure of the connection works for that phase have been submitted to and approved by the relevant planning authority as part of the detailed design approval required by requirement 2(1).

(2) For the purposes of requirement 8(1), “commence” includes any site preparation works.

(3) Any construction site must remain securely fenced in accordance with the approved details at all times during construction of the authorised development.

(4) Any temporary fencing must be removed on completion of the phase of construction of the authorised development for which it was used.

(5) Any approved permanent fencing must be completed before completion of the authorised development.

Surface and foul water drainage

9.—(1) No phase of the authorised development may commence until details of the surface and (if any) foul water drainage system (including means of pollution control) for that phase have been submitted to and approved by the relevant planning authority in consultation with Kent County Council as lead local flood authority and the Lower Medway Internal Drainage Board.

(2) The surface and foul water drainage system must be constructed in accordance with the approved details.

Archaeology

10.—(1) No phase of the authorised development may commence until a written scheme of archaeological investigation (which must accord with the outline written scheme of investigation) for that phase has been submitted to and approved by the relevant planning authority.

(2) For the purposes of requirement 10(1), “commence” includes any site preparation works.

(3) In the event that site investigation is required, the scheme must include details of the following—

- (a) an assessment of significance and research questions;
- (b) the programme and methodology of site investigation and recording;
- (c) the programme for post investigation assessment;
- (d) provision for analysis of the site investigation and recording;
- (e) provision for publication and dissemination of the analysis and records of the site investigation;
- (f) provision for archive deposition of the analysis and records of the site investigation; and
- (g) nomination of a competent person, persons or organisation to undertake the works set out within the written scheme of investigation.

(4) Any archaeological works or watching brief must be carried out in accordance with the approved scheme.

(5) In the event that site investigation is required, the site investigation and post investigation assessment must be completed in accordance with the programme set out in the written scheme of archaeological investigation and provision made for analysis, publication and dissemination of results and archive deposition.

Construction environmental management plan

11.—(1) No phase of the authorised development may commence until a construction environmental management plan (which must accord with the outline construction environmental management plan) for that phase has been submitted to and approved by the relevant planning authority, in consultation with the relevant highway authority and the Environment Agency.

(2) The construction environmental management plan must include the following documents relevant to the phase of the authorised development in respect of which it is submitted—

- (a) site waste management plan;
- (b) breeding bird protection plan;
- (c) new watercourse crossing inventory; and
- (d) upgraded watercourse crossing inventory.

(3) The construction environmental management plan must be implemented as approved.

Construction traffic management plan

12.—(1) No phase of the authorised development may commence until written details of a construction traffic management plan (which must accord with the outline construction traffic management plan) for that phase has been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority.

(2) The construction traffic management plan must be implemented as approved.

Special protection area construction noise management plan

13.—(1) No phase of the authorised development may commence until written details of a special protection area construction noise management plan (which must accord with the outline special protection area construction noise plan) for that phase has been submitted to and approved by the relevant planning authority.

(2) The special protection area construction noise management plan must be implemented as approved.

Protected species

14.—(1) No phase of the authorised development may commence until final pre-construction survey work has been carried out for that phase to establish whether a protected species is present on any of the land affected, or likely to be affected, by the authorised development or in any of the trees to be lopped or felled as part of that stage of the connection works.

(2) For the purposes of requirement 14(1) “commence” includes any site preparation works.

(3) Where a protected species is shown to be present, the phase of the authorised development must not begin until, after consultation with Natural England and the relevant planning authority, a scheme of protection and mitigation measures has been submitted to and approved by the relevant planning authority.

(4) The authorised development must be carried out in accordance with the approved scheme.

(5) In this requirement, “protected species” refers to any species defined as a European Protected Species in regulations 42 (European protected species of animals) and 46 (European protected species of plants) of the Conservation of Habitats and Species Regulations 2017^(a) or any species to which Part I (wildlife) and Schedule 5 (animals which are protected) of the Wildlife and Countryside Act 1981^(b) applies.

Operational noise

15.—(1) No phase of the authorised development may commence until an operational noise assessment containing details of how the design of the authorised development has incorporated mitigation to ensure the operational noise rating levels as set out in the environmental statement are to be complied with for that phase has been submitted to and approved by the relevant local planning authority.

(2) The design as described in the operational noise assessment must be implemented as approved.

Local skills, supply chain and employment

16.—(1) No phase of the authorised development may commence until for that phase a skills, supply chain and employment plan in relation to the authorised development (which accords with the outline skills, supply chain and employment plan) has been submitted to and approved by the relevant planning authority.

(2) The skills, supply chain and employment plan must identify opportunities for individuals and businesses to access employment and supply chain opportunities associated with the construction, operation and maintenance of the authorised development, and the means for publicising such opportunities.

(3) The skills and employment plans must be implemented as approved.

(a) S.I. 2017/1012.

(b) 1981 c.69.

Decommissioning

17.—(1) Within 14 days of the date of final commissioning the undertaker must serve written notice on the relevant planning authority and the Environment Agency of the date of final commissioning.

(2) No later than the 35th anniversary of the date of final commissioning, the undertaker and Environment Agency must—

- (a) undertake a review of the progress made by the Environment Agency in respect of managed realignment of the existing flood defence, with particular regard to the timescales for achieving—
 - (i) all necessary consents and approvals;
 - (ii) all the land and/or rights over land; and
 - (iii) funding required for managed realignment of the existing flood defence; and
- (b) as soon as reasonably practicable following that review, submit a managed realignment programme to the relevant planning authority, which sets out the timescales for achieving the matters prescribed in sub-paragraphs (a)(i) to (iii) inclusively and the anticipated date by which the parts of the authorised development required for managed realignment of the existing flood defence must be decommissioned.

(3) If the Environment Agency is unable to satisfy the requirements of sub-paragraph (2) on or before the 35th anniversary of the date of final commissioning, the process set out in that sub-paragraph must be repeated every five years thereafter until the Environment Agency is able to submit a managed realignment programme to the relevant planning authority compliant with that sub-paragraph.

(4) The Environment Agency must consult, and have regard to any representations received from, the undertaker in respect of the managed realignment programme before it is submitted to the relevant planning authority and if the undertaker and Environment Agency cannot agree the timescales to be included in the managed realignment programme those timescales shall be determined pursuant to article 35 (arbitration).

(5) The Environment Agency may submit an application to the relevant planning authority for a decommissioning notice to be served on the undertaker in accordance with the managed realignment programme submitted pursuant to sub-paragraph (2) or (3) provided that it has first consulted, and had regard to, any submissions on the application made by the undertaker.

(6) The application made pursuant to sub-paragraph (5) must be accompanied by evidence that the Environment Agency has secured the matters prescribed in sub-paragraphs (2)(a)(i) to (iii) inclusively.

(7) Within eight weeks of receiving an application pursuant to sub-paragraph (5), or such other timescale as may be agreed in advance with the undertaker, the relevant planning authority must serve the decommissioning notice on the undertaker.

(8) Before serving the decommissioning notice, the relevant planning authority must—

- (a) be satisfied on the evidence before it that the Environment Agency has secured the matters prescribed in sub-paragraphs (2)(a)(i) to (iii) inclusively; and
- (b) consult, and have regard to, any submissions made by the undertaker.

(9) The decommissioning notice must—

- (a) give reasons for the relevant planning authority determining that the Environment Agency has secured the matters prescribed in sub-paragraphs (2)(a)(i) to (iii) inclusively;
- (b) include a plan detailing the extent of land within the Order limits required for managed realignment of the existing flood defence;
- (c) not be served—
 - (i) within a period of 40 years from the date of final commissioning, or until such later time as any appeal, arbitration or judicial review of any decommissioning notice served pursuant to this Requirement has been determined, and provide that the

authorised development may continue to generate and store electricity on a commercial basis until the later of those periods has been determined; and

- (ii) in respect of any land within the Order limits that is not required for managed realignment of the existing flood defence as shown on the plan required by (b) of this sub-paragraph.

(10) The undertaker must submit the decommissioning and restoration plan to the relevant planning authority for approval within 3 months of the earlier of—

- (a) all or part of the Order land ceasing to be used for the purposes of electricity generation or storage (either actively generating electricity or being available to generate electricity on a standby basis);
- (b) the date of the decommissioning notice served pursuant to sub-paragraph (7); or
- (c) such other timescale as may be approved by the relevant planning authority in writing.

(11) The decommissioning and restoration plan required by sub-paragraph (10) must—

- (a) accord with the outline decommissioning and restoration plan;
- (b) state the date by which the authorised development will be decommissioned; and
- (c) not require the undertaker to decommission the existing flood defence located within the Order limits.

(12) The decommissioning and restoration plan required must be implemented as approved.

(13) In this requirement the following definitions have effect—

“date of final commissioning” means the date on which the authorised development commences operation by generating electricity on a commercial basis but excluding the generation of electricity during commissioning and testing;

“decommissioning and restoration plan” means the decommissioning and restoration plan approved by the relevant planning authority pursuant to sub-paragraph (10) which sets out how the authorised development should be decommissioned and the specification to which the land should be restored having regard to the outline decommissioning and restoration plan and whether or not that land is required for managed realignment of the existing flood defence;

“decommissioning notice” means the notice to be served by the relevant planning authority on the undertaker pursuant to sub-paragraph (7) which confirms the requirement for the authorised development to be decommissioned having regard to the managed realignment programme and the matters prescribed in sub-paragraph (8);

“managed realignment of the existing flood defence” means the physical realignment of the existing flood defence located within the Order limits (that would require the removal of all or any part of Work No. 1, 2 and 3) as it exists at the date of this Order and as described in the Medway Estuary and Swale Strategy published on 10 September 2019 or as otherwise agreed between the undertaker and the Environment Agency, or determined by article 35 (arbitration); and

“managed realignment programme” means the managed realignment programme required to be submitted to the relevant planning authority by the Environment Agency pursuant to sub-paragraph (2) or (3) which sets out the timescales within which the Environment Agency reasonably expects the matters prescribed in sub-paragraphs (2)(a)(i) to (iii) inclusively to be secured such that managed realignment of the existing flood defence can be achieved.

Requirement for written approval

18. Where the approval, agreement or confirmation of the relevant planning authority or another person is required under a requirement, that approval, agreement or confirmation must be given in writing.

Amendments to approved details

19.—(1) With respect to any requirement which requires the authorised development to be carried out in accordance with the details approved by the relevant planning authority or another person, the approved details must be carried out as approved unless an amendment or variation is previously agreed in writing by the relevant planning authority or that other person in accordance with sub-paragraph (2).

(2) Any amendments to or variations from the approved details must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the relevant planning authority or that other person that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

(3) The approved details must be taken to include any amendments that may subsequently be approved in writing by the relevant planning authority or that other person.

Consultation

20. Where the relevant planning authority is required by this Order or other statute to consult with another person or body prior to discharging a requirement, the undertaker must consult with such person or body prior to making an application to discharge the requirement.

PART 3

PROCEDURE FOR DISCHARGE OF REQUIREMENTS

Interpretation

21. In this Part of this Schedule, “discharging authority” means—

- (a) any body responsible for giving any consent, agreement or approval required by a requirement included in Part 2 of this Schedule, or for giving any consent, agreement or approval further to any document referred to in any such requirement; or
- (b) the local authority in the exercise of its functions set out in sections 60 (control of noise on construction sites) and 61 (prior consent for work on construction sites) of the Control of Pollution Act 1974 subsequently referred to as “the 1974 Act”(a).

Applications made under requirements

22.—(1) Where an application has been made to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 2 of this Schedule, or for any consent, agreement or approval further to any document referred to in any such requirement, the discharging authority must give notice to the undertaker of its decision on the application within a period of eight weeks beginning with—

- (a) the day immediately following that on which the application is received by the discharging authority; or
- (b) where further information is requested under paragraph 23, the day immediately following that on which the further information has been supplied by the undertaker, or such longer period as may be agreed in writing by the undertaker and the discharging authority.

(a) 1974 c.40. Section 61 was amended by Schedule 7 to the Building Act 1984 (c.55), Schedule 15 to the Environmental Protection Act 1990 (c.43) and Schedule 24 to the Environment Act 1995 (c.25).

(2) In determining any application made to the discharging authority for any consent, agreement or approval required by a requirement contained in Part 2 of this Schedule, the discharging authority may—

- (a) give or refuse its consent, agreement or approval; or
- (b) give its consent, agreement or approval subject to reasonable conditions,

and where consent, agreement or approval is refused or granted subject to conditions the discharging authority must provide its reasons for that decision with the notice of the decision.

Further information regarding requirements

23.—(1) In relation to any application referred to in paragraph 22, the discharging authority may request such further information from the undertaker as it considers necessary to enable it to consider the application.

(2) If the discharging authority considers that further information is necessary and the requirement concerned contained in Part 2 of this Schedule does not specify that consultation with a consultee is required, the discharging authority must, within ten business days of receipt of the application, notify the undertaker in writing specifying the further information required.

(3) If the requirement concerned contained in Part 2 of this Schedule specifies that consultation with a consultee is required, the discharging authority must issue the application to the consultee within five business days of receipt of the application, and notify the undertaker in writing specifying any further information requested by the consultee within five business days of receipt of such a request.

(4) If the discharging authority does not give the notification within the period specified in subparagraph (2) or (3) it (and the consultee, as the case may be) is deemed to have sufficient information to consider the application and is not entitled to request further information without the prior agreement of the undertaker.

Appeals

24.—(1) Where a person (“the applicant”) makes an application to a discharging authority, the applicant may appeal to the Secretary of State in the event that—

- (a) the discharging authority refuses an application for any consent, agreement or approval required by—
 - (i) a requirement contained in Part 2 of this Schedule; or
 - (ii) a document referred to in any requirement contained in Part 2 of this Schedule;
- (b) the discharging authority does not determine such an application within the time period set out in paragraph 22(1), or grants it subject to conditions;
- (c) the discharging authority issues a notice further to sections 60 (control of noise on construction sites) or 61 (prior consent for work on construction sites) of the 1974 Act;
- (d) on receipt of a request for further information pursuant to paragraph 23 of this Part of this Schedule, the applicant considers that either the whole or part of the specified information requested by the discharging authority is not necessary for consideration of the application; or
- (e) on receipt of any further information requested, the discharging authority notifies the applicant that the information provided is inadequate and requests additional information which the applicant considers is not necessary for consideration of the application.

(2) The appeal process is as follows—

- (a) any appeal by the applicant must be made within 42 days of the date of the notice of the decision or determination, or (where no determination has been made) the expiry of the time period set out in paragraph 22(1), giving rise to the appeal referred to in subparagraph (1);

- (b) the applicant must submit the appeal documentation to the Secretary of State and must on the same day provide copies of the appeal documentation to the discharging authority and any consultee specified under the relevant requirement contained in Part 2 of this Schedule;
- (c) as soon as is practicable after receiving the appeal documentation, the Secretary of State must appoint a person to consider the appeal (“the appointed person”) and must notify the appeal parties of the identity of the appointed person and the address to which all correspondence for the attention of the appointed person should be sent;
- (d) the discharging authority and any consultee (if applicable) must submit their written representations together with any other representations to the appointed person in respect of the appeal within ten business days of the start date specified by the appointed person and must ensure that copies of their written representations and any other representations as sent to the appointed person are sent to each other and to the applicant on the day on which they are submitted to the appointed person;
- (e) the applicant must make any counter-submissions to the appointed person within ten business days of receipt of written representations pursuant to sub-paragraph (d) above; and
- (f) the appointed person must make a decision and notify it to the appeal parties, with reasons, as soon as reasonably practicable after the end of the ten day period for counter-submissions under sub-paragraph (e).

(3) The appointment of the appointed person pursuant to sub-paragraph (2)(c) may be undertaken by a person appointed by the Secretary of State for this purpose instead of by the Secretary of State.

(4) In the event that the appointed person considers that further information is necessary to enable the appointed person to consider the appeal the appointed person must as soon as practicable notify the appeal parties in writing specifying the further information required, the appeal party from whom the information is sought, and the date by which the information is to be submitted.

(5) Any further information required pursuant to sub-paragraph (4) must be provided by the party from whom the information is sought to the appointed person and to the other appeal parties by the date specified by the appointed person. The appointed person must notify the appeal parties of the revised timetable for the appeal on or before that day. The revised timetable for the appeal must require submission of written representations to the appointed person within ten business days of the date specified by the appointed person, but must otherwise be in accordance with the process and time limits set out in sub-paragraphs (2)(c) to (e).

(6) On an appeal under this paragraph, the appointed person may—

- (a) allow or dismiss the appeal; or
- (b) reverse or vary any part of the decision of the discharging authority (whether the appeal relates to that part of it or not),

and may deal with the application as if it had been made to the appointed person in the first instance.

(7) The appointed person may proceed to a decision on an appeal taking into account such written representations as have been sent within the relevant time limits and in the sole discretion of the appointed person such written representations as have been sent outside of the relevant time limits.

(8) The appointed person may proceed to a decision even though no written representations have been made within the relevant time limits, if it appears to the appointed person that there is sufficient material to enable a decision to be made on the merits of the case.

(9) The decision of the appointed person on an appeal is final and binding on the parties, and a court may entertain proceedings for questioning the decision only if the proceedings are brought by a claim for a judicial review.

(10) If an approval is given by the appointed person pursuant to this Part of this Schedule, it is deemed to be an approval for the purpose of Part 2 of this Schedule as if it had been given by the discharging authority. The discharging authority may confirm any determination given by the appointed person in identical form in writing, but a failure to give such confirmation (or a failure to give it in identical form) is not to be taken to affect or invalidate the effect of the appointed person's determination.

(11) Save where a direction is given pursuant to sub-paragraph (12) requiring the costs of the appointed person to be paid by the discharging authority, the reasonable costs of the appointed person are to be met by the applicant.

(12) On application by the discharging authority or the applicant, the appointed person may give directions as to the costs of the appeal and as to the parties by whom the costs of the appeal are to be paid. In considering whether to make any such direction and the terms on which it is to be made, the appointed person must have regard to relevant guidance on the Planning Practice Guidance website or any official circular or guidance which may from time to time replace it.

SCHEDULE 2

Article 8

STREETS SUBJECT TO STREET WORKS

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street subject to street works</i>
Swale Borough	A farm track between the two points marked E and a point marked G and coloured yellow on figure 2 of the streets and access plan
Swale Borough	An existing track between the two points marked A and coloured green on figure 3 of the streets and access plan
Swale Borough	An existing track between the two points marked B and coloured orange on figure 3 of the streets and access plan
Swale Borough	An existing track between the two points marked D and coloured yellow on figure 3 of the streets and access plan
Swale Borough	A farm track between the two points marked E and G and coloured yellow on figure 3 of the streets and access plan
Canterbury City	A farm track between the two points marked F and coloured yellow on figure 3 of the streets and access plan

SCHEDULE 3

Article 10

STREETS TO BE TEMPORARILY STOPPED UP

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Street to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
Swale Borough	A farm track coloured yellow on figure 2 of the streets and access plan	Between the two points marked E and a point marked G and coloured yellow on figure 2 of the streets and access plan
Swale Borough	An existing track coloured green on figure 3 of the streets and access plan	Between the two points marked A on figure 3 of the streets and access plan
Swale Borough	An existing track coloured orange on figure 3 of the streets and access plan	Between the two points marked B on figure 3 of the streets and access plan
Swale Borough	An existing track coloured yellow on figure 3 of the streets and access plan	Between the two points marked D on figure 3 of the streets and access plan
Swale Borough	A farm track coloured yellow on figure 3 of the streets and access plan	Between the two points marked E and G on figure 3 of the streets and access plan
Canterbury City	A farm track coloured yellow on figure 3 of the streets and access plan	Between the two points marked F on figure 3 of the streets and access plan

SCHEDULE 4

Article 11

PUBLIC RIGHTS OF WAY TO BE TEMPORARILY STOPPED UP

<i>(1)</i> <i>Area</i>	<i>(2)</i> <i>Public right of way to be temporarily stopped up</i>	<i>(3)</i> <i>Extent of temporary stopping up</i>
Swale Borough	Footpath ZR 484 (Saxon Shore Way)	Between the points marked A as shown on figures 2 and 3 of the rights of way plan
Swale Borough	Footpath ZR 485	Between the points marked B as shown on figure 2 of the rights of way plan
Swale Borough	Footpath ZR 488	Between the points marked C as shown on figure 3 of the rights of way plan
Swale Borough	Footpath ZR 692	Between the points marked D as shown on figure 3 of the rights of way plan
Canterbury City	Footpath CW90	Between the points marked E as shown on figure 3 of the rights of way plan
Canterbury City	Footpath CW55 (Saxon Shore Way)	Between the points marked F as shown on figure 3 of the rights of way plan

SCHEDULE 5

Article 18

LAND IN WHICH ONLY NEW RIGHTS ETC. MAY BE ACQUIRED

<i>(1)</i> <i>Plot number(s)</i>	<i>(2)</i> <i>Work No.</i>	<i>(3)</i> <i>Purpose for which rights may be acquired</i>
3/06, 3/06B, 3/07, 3/07A, 3/07B, 3/08, 3/08A	5	Rights to install, use, protect, inspect, alter, remove, replace, improve and maintain electrical underground cables, telecommunications cables and other services including rights of access without or without vehicles, plant and machinery for all purposes in connection with the construction, use, maintenance and decommissioning of the authorised development. Restrictions on erecting buildings or structures, altering ground levels, planting trees or carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights.
3/06, 3/10, 3/12, 3/13	7, 9	Rights to use, alter, improve and maintain an existing means of access including rights of access with or without vehicles, plant and machinery for all purposes in connection with the construction, use, maintenance and decommissioning of the authorised development. Restrictions on erecting buildings or structures, altering ground levels, planting trees or carrying out operations or actions (including but not limited to blasting and piling) which may obstruct, interrupt, or interfere with the exercise of the rights.
3/11	8	Rights to create, manage, alter, improve and maintain a habitat management area including rights of access without or without vehicles, plant and machinery for all purposes in connection with the

		<p>construction, use, maintenance and decommissioning of the authorised development.</p> <p>Restrictions on erecting buildings or structures, altering ground levels or carrying out operations or actions which may obstruct, interrupt, or interfere with the exercise of the rights.</p>
<p>1/01, 1/02, 1/03, 1/06, 1/07, 1/08, 1/09, 1/10, 2/01, 2/02, 2/03, 2/05, 2/06, 2/07, 2/08, 2/09, 2/10, 2/11, 2/12, 2/13, 2/14, 2/15, 2/16, 2/17, 2/18, 2/19, 2/20, 2/21, 2/22, 2/23, 2/24, 2/25, 2/26, 2/27, 2/28, 3/01, 3/01A, 3/01B, 3/02, 3/02A, 3/02B, 3/03, 3/03A, 3/03B, 3/10, 3/11, 4/01, 4/02, 4/03, 4/04, 4/05, 4/06</p>	9	<p>Rights to inspect, maintain, repair, alter, remove and reconstruct the flood defences including rights of access without or without vehicles, plant and machinery for all purposes in connection with the construction, use, maintenance and decommissioning of the authorised development.</p> <p>Restrictions on erecting buildings or structures, altering ground levels or carrying out operations or actions which may obstruct, interrupt, or interfere with the exercise of the rights.</p>

MODIFICATION OF COMPENSATION AND COMPULSORY PURCHASE ENACTMENTS FOR THE CREATION OF NEW RIGHTS AND IMPOSITION OF NEW RESTRICTIVE COVENANTS

1. The enactments for the time being in force with respect to compensation for the compulsory purchase of land apply, with the necessary modifications as respects compensation, in the case of a compulsory acquisition under this Order of a right by the creation of a new right or the imposition of a restrictive covenant as they apply as respects compensation on the compulsory purchase of land and interests in land.

2.—(1) Without limitation to the scope of paragraph 1, the Land Compensation Act 1973(a) has effect subject to the modifications set out in sub-paragraph (2).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 (measure of compensation in case of severance) of the 1965 Act as substituted by paragraph 5

- (a) for the words “land is acquired or taken from” there is substituted the words “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for the words “acquired or taken from him” there is substituted the words “over which the right is exercisable or the restrictive covenant enforceable”.

3.—(1) Without limitation on the scope of paragraph 1, the 1961 Act has effect subject to the modification set out in sub-paragraph (2).

(2) For section 5A(5A) (relevant valuation date) of the 1961 Act, substitute—

“(5A) If—

- (a) the acquiring authority enters on land for the purpose of exercising a right in pursuance of a notice of entry under section 11(1) of the 1965 Act (as modified by paragraph 7 of Schedule 7 to the Cleve Hill Solar Park Order 2020
- (b) the acquiring authority is subsequently required by a determination under paragraph 13 of Schedule 2A to the 1965 Act (as substituted by paragraph 10 of Schedule 7 to the Cleve Hill Solar Park Order 2020 to acquire an interest in the land; and
- (c) the acquiring authority enters on and takes possession of that land

the authority is deemed for the purposes of subsection (3)(a) to have entered on that land where it entered on that land for the purpose of exercising that right.”.

Application of Part 1 the 1965 Act

4.—(1) The 1965 Act is to have effect with the modifications necessary to make it apply to the compulsory acquisition under this Order of a right by the creation of a new right, or to the imposition under this Order of a restrictive covenant, as it applies to the compulsory acquisition under this Order of land, so that, in appropriate contexts, references in that Act to land are read (according to the requirements of the particular context) as referring to, or as including references to—

- (a) the right acquired or to be acquired, or the restriction imposed or to be imposed; or
- (b) the land over which the right is or is to be exercisable, or the restriction is to be enforceable.

(a) 1973 c.26.

(2) Without limitation on the scope of sub-paragraph (1), Part 1 (compulsory purchase under Acquisition of Land Act 1946) of the 1965 Act applies in relation to the compulsory acquisition under this Order of a right by the creation of a new right or, in relation to the imposition of a restriction, with the modifications specified in the following provisions of this Schedule.

5. For section 7 (measure of compensation in the case of severance) of the 1965 Act there is substituted the following section—

“7. In assessing the compensation to be paid by the acquiring authority under this Act, regard shall be had not only to the extent (if any) to which the value of the land over which the right is to be acquired or the restrictive covenant is to be imposed is depreciated by the acquisition of the right or the imposition of the covenant but also to the damage (if any) to be sustained by the owner of the land by reason of its severance from other land of the owner, or injuriously affecting that other land by the exercise of the powers conferred by this or the special Act.”.

6. The following provisions of the 1965 Act (which state the effect of a deed poll executed in various circumstances where there is no conveyance by persons with interests in the land), that is to say—

- (a) section 9(4) (failure by owners to convey);
- (b) paragraph 10(3) of Schedule 1 (owners under incapacity);
- (c) paragraph 2(3) of Schedule 2 (absent and untraced owners); and
- (d) paragraphs 2(3) and 7(2) of Schedule 4 (common land),

are so modified as to secure that, as against persons with interests in the land which are expressed to be overridden by the deed, the right which is to be compulsorily acquired or the restrictive covenant which is to be imposed is vested absolutely in the acquiring authority.

7. Section 11 (powers of entry) of the 1965 Act is so modified as to secure that, as from the date on which the acquiring authority has served notice to treat in respect of any right or restrictive covenant, as well as the notice of entry required by subsection (1) of that section (as it applies to compulsory acquisition under article 19), it has power, exercisable in equivalent circumstances and subject to equivalent conditions, to enter for the purpose of exercising that right or enforcing that restrictive covenant (which is deemed for this purpose to have been created on the date of service of the notice); and sections 11A (powers of entry: further notices of entry), 11B (counter-notice requiring possession to be taken on specified date), 12 (penalty for unauthorised entry) and 13 (entry on warrant in the event of obstruction) of the 1965 Act is modified correspondingly.

8. Section 20 (protection for interests of tenants at will, etc.) of the 1965 Act applies with the modifications necessary to secure that persons with such interests in land as are mentioned in that section are compensated in a manner corresponding to that in which they would be compensated on a compulsory acquisition under this Order of that land, but taking into account only the extent (if any) of such interference with such an interest as is actually caused, or likely to be caused, by the exercise of the right or the enforcement of the restrictive covenant in question.

9. Section 22 (protection of acquiring authority’s possession where by inadvertence an estate, right or interest has not been got in) of the 1965 Act as modified by article 22(4) is so modified as to enable the acquiring authority, in circumstances corresponding to those referred to in that section, to continue to be entitled to exercise the right acquired or restrictive covenant imposed, subject to compliance with that section as respects compensation.

10. For Schedule 2A (counter notice requiring purchase of land not in notice to treat) to the 1965 Act substitute—

“SCHEDULE 2A COUNTER-NOTICE REQUIRING PURCHASE OF LAND

Introduction

1.—(1) This Schedule applies where an acquiring authority serve a notice to treat in respect of a right over, or restrictive covenant affecting, the whole or part of a house, building or factory and have not executed a general vesting declaration under section 4 of the 1981 Act as applied by article 20 (application of the 1981 Act) of the Cleve Hill Solar Park Order 2020 in respect of the land to which the notice to treat relates.

(2) But see article 21(3) (acquisition of subsoil only) of the Cleve Hill Solar Park Order 2020 which excludes the acquisition of subsoil only from this Schedule.

2. In this Schedule, “house” includes any park or garden belonging to a house.

Counter-notice requiring purchase of land

3. A person who is able to sell the house, building or factory (“the owner”) may serve a counter-notice requiring the authority to purchase the owner’s interest in the house, building or factory.

4. A counter-notice under paragraph 3 must be served within the period of 28 days beginning with the day on which the notice to treat was served.

Response to counter-notice

5. On receiving a counter-notice, the acquiring authority must decide whether to—

- (a) withdraw the notice to treat,
- (b) accept the counter-notice, or
- (c) refer the counter-notice to the Upper Tribunal.

6. The authority must serve notice of their decision on the owner within the period of 3 months beginning with the day on which the counter-notice is served (“the decision period”).

7. If the authority decides to refer the counter-notice to the Upper Tribunal they must do so within the decision period.

8. If the authority does not serve notice of a decision within the decision period they are to be treated as if they had served notice of a decision to withdraw the notice to treat at the end of that period.

9. If the authority serves notice of a decision to accept the counter-notice, the compulsory purchase order and the notice to treat are to have effect as if they included the owner’s interest in the house, building or factory.

Determination by the Upper Tribunal

10. On a referral under paragraph 7, the Upper Tribunal must determine whether the acquisition of the right or the imposition of the restrictive covenant would—

- (a) in the case of a house, building or factory, cause material detriment to the house, building or factory, or
- (b) in the case of a park or garden, seriously affect the amenity or convenience of the house to which the park or garden belongs.

11. In making its determination, the Upper Tribunal must take into account—

- (a) the effect of the acquisition of the right or the imposition of the covenant,
- (b) the use to be made of the right or covenant proposed to be acquired or imposed, and
- (c) if the right or covenant is proposed to be acquired or imposed for works or other purposes extending to other land, the effect of the whole of the works and the use of the other land.

12. If the Upper Tribunal determines that the acquisition of the right or the imposition of the covenant would have either of the consequences described in paragraph 10, it must determine how much of the house, building or factory the authority ought to be required to take.

13. If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the compulsory purchase order and the notice to treat are to have effect as if they included the owner's interest in that land.

14.—(1) If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the authority may at any time within the period of 6 weeks beginning with the day on which the Upper Tribunal makes its determination withdraw the notice to treat in relation to that land.

(2) If the acquiring authority withdraws the notice to treat under this paragraph they must pay the person on whom the notice was served compensation for any loss or expense caused by the giving and withdrawal of the notice.

(3) Any dispute as to the compensation is to be determined by the Upper Tribunal.”.

PROTECTIVE PROVISIONS

PART 1

PROTECTION FOR ELECTRICITY, GAS, WATER AND SEWERAGE
UNDERTAKERS**Application**

1. For the protection of the affected undertakers referred to in this Part of this Schedule (save for National Grid which is protected by Part 2 of this Schedule, Blue Transmission London Array Limited which is protected by Part 5 of this Schedule, and UKPN which is protected by Part 6 of this Schedule) the following provisions have effect, unless otherwise agreed in writing between the undertaker and the affected undertaker concerned.

2. In this Part of this Schedule—

“affected undertaker” means—

- (a) any licence holder within the meaning of Part 1 (electricity supply) of the 1989 Act;
- (b) a gas transporter within the meaning of Part 1 (gas supply) of the Gas Act 1986(a);
- (c) a water undertaker within the meaning of the Water Industry Act 1991(b); or
- (d) a sewerage undertaker within the meaning of Part 1 (preliminary) of the Water Industry Act 1991,

for the area of the authorised development but, for the avoidance of doubt, does not include the undertaker specified in Part 2 (National Grid) of this Schedule, and in relation to any apparatus, means the undertaker to whom it belongs or by whom it is maintained;

“alternative apparatus” means alternative apparatus adequate to enable the affected undertaker in question to fulfil its statutory functions in a manner not less efficient than previously;

“apparatus” means—

- (a) in the case of an electricity undertaker, electric lines or electrical plant (as defined in the 1989 Act), belonging to or maintained by that affected undertaker;
- (b) in the case of a gas undertaker, any mains, pipes or other apparatus belonging to or maintained by a gas transporter for the purposes of gas supply;
- (c) in the case of a water undertaker—
 - (i) mains, pipes or other apparatus belonging to or maintained by that affected undertaker for the purposes of water supply; and
 - (ii) any water mains or service pipes (or part of a water main or service pipe) that is the subject of an agreement to adopt made under section 51A (agreements to adopt water main or service pipe at future date) of the Water Industry Act 1991;
- (d) in the case of a sewerage undertaker—
 - (i) any drain or works vested in the affected undertaker under the Water Industry Act 1991; and

(a) 1986 c.44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c.45), and was further amended by section 76 of the Utilities Act 2000 (c.27).

(b) 1991 c.56.

- (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) (adoption of sewers and disposal works) of that Act or an agreement to adopt made under section 104 of that Act,

and includes a sludge main, disposal main (within the meaning of section 219 (general interpretation) of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works, and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties; and

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over or upon land.

Precedence of the 1991 Act in respect of apparatus in the streets

3. This Part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and the affected undertaker are regulated by the provisions of Part 3 (water supply) of the 1991 Act.

No acquisition etc. except by agreement

4. Regardless of any provision in this Order or anything shown on the land plan, the undertaker must not acquire any apparatus otherwise than by agreement.

Removal of apparatus

5.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of an affected undertaker to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed and is in operation to the reasonable satisfaction of the affected undertaker in question.

(2) If, for the purpose of executing any works in, on or under any land purchased, held, or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to the affected undertaker in question written notice of that requirement, together with a plan and section of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an affected undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the affected undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the affected undertaker in question must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between the affected undertaker in question and the undertaker or in default of agreement settled by arbitration in accordance with article 35 (arbitration).

(5) The affected undertaker in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 35 (arbitration) and after the grant to the affected undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the affected undertaker in question that it desires itself to execute any work, or part of any work in connection with the construction or removal of apparatus in any land controlled by the undertaker, that work, instead of being executed by the affected undertaker, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the affected undertaker.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

Facilities and rights for alternative apparatus

6.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to an affected undertaker facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and the affected undertaker in question or in default of agreement settled by arbitration in accordance with article 35 (arbitration).

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the affected undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that affected undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus

7.—(1) Not less than 28 days before starting the execution of any works of the type referred to in paragraph 5(2) that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 5(2), the undertaker must submit to the affected undertaker in question a plan, section and description of the works to be executed.

(2) Those works must be executed only in accordance with the plan, section and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the affected undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the affected undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by an affected undertaker under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If an affected undertaker in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 6 apply as if the removal of the apparatus had been required by the undertaker under paragraph 5(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to the affected undertaker in question notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonably practicable

subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

Expenses and costs

8.—(1) Subject to the following provisions of this paragraph, the undertaker must repay to an affected undertaker the reasonable expenses incurred by that affected undertaker in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 5(2).

(2) There must be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 35 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the affected undertaker in question by virtue of sub-paragraph (1) must be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to an affected undertaker in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the affected undertaker any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

9.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any such works referred to in paragraph 5(2), any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of an affected undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any affected undertaker, the undertaker must—

- (a) bear and pay the cost reasonably incurred by that affected undertaker in making good such damage or restoring the supply; and
- (b) provide reasonable compensation to that affected undertaker for any other expenses, loss, damages, penalty or costs incurred by the affected undertaker,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an affected undertaker, its officers, servants, contractors or agents.

(3) An affected undertaker must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the undertaker which, if it withholds such consent, will have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

Enactments and agreements

10. Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and an affected undertaker in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

PART 2

FOR THE PROTECTION OF NATIONAL GRID AS ELECTRICITY UNDERTAKER

Application

1. For the protection of National Grid referred to in this Part of this Schedule the following provisions will, unless otherwise agreed in writing between the undertaker and National Grid, have effect.

Interpretation

2. In this Part of this Schedule—

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of the National Grid to enable the National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means electric lines or electrical plant as defined in the Electricity Act 1989, belonging to or maintained by National Grid;

“authorised development” has the same meaning as in article 2 (interpretation) of this Order (unless otherwise specified) for the purposes of this Part of this Schedule and shall include the use and maintenance of the authorised development and construction of any works authorised by this Schedule;

“commence” has the same meaning as in article 2 of this Order and commencement shall be construed to have the same meaning;

“deed of consent” means a deed of consent, crossing agreement, deed of variation or new deed of grant agreed between the parties acting reasonably in order to vary and/or replace existing easements, agreements, enactments and other such interests so as to secure land rights and interests as are necessary to carry out, maintain, operate and use the apparatus in a manner consistent with the terms of this Part of this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary mitigation measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of the National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means National Grid Electricity Transmission PLC (Company No. 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed;

“specified works” means any of the authorised development or activities undertaken in association with the authorised development which—

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; and/or
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise.

3. Except for paragraphs 4 (apparatus of National Grid in streets subject to temporary stopping up), 9 (retained apparatus: protection of National Grid as electricity undertaker) 10 (expenses) and 11 (indemnity) this Schedule does not apply to apparatus in respect of which the relations between the undertaker and National Grid are regulated by the provisions of Part 3 of the 1991 Act.

Apparatus of National Grid in streets subject to temporary stopping up

4.—(1) Without prejudice to the generality of any other protection afforded to National Grid elsewhere in this Order, where any street is stopped up under article 10 (temporary stopping up of streets), if National Grid has any apparatus in the street or accessed via that street National Grid will be entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and the undertaker will grant to National Grid, or will procure the granting to the National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Notwithstanding the temporary stopping up under the powers of article 10 (temporary stopping up of streets), National Grid will be at liberty at all times to take all necessary access across any such street and/or to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that street.

Protective works to buildings

5.—(1) The undertaker, in the case of the powers conferred by article 14 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of National Grid which will not unreasonably be withheld and, if by reason of the exercise of those powers any damage to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal or abandonment) or property of National Grid or any interruption in the supply of electricity, the undertaker must bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and, subject to sub-paragraph (2), shall—

- (a) pay compensation to National Grid for any loss sustained by it; and

- (b) indemnify National Grid against all claims, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from or incurred by National Grid, by reason of any such damage or interruption.

(2) Nothing in this paragraph imposes any liability on the undertaker with respect to any damage or interruption to the extent that such damage or interruption is attributable to the act, neglect or default of National Grid or its contractors or workmen; and National Grid will give to the undertaker reasonable notice of any claim or demand as aforesaid and no settlement or compromise thereof shall be made by National Grid, save in respect of any payment required under a statutory compensation scheme, without first consulting the undertaker and giving the undertaker an opportunity to make representations as to the claim or demand.

Acquisition of land

6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not acquire any land interest or apparatus or override any easement or other interest of National Grid otherwise than by agreement (such agreement not to be unreasonably withheld).

(2) As a condition of agreement between the parties in sub-paragraph (1), prior to the carrying out of any part of the authorised works (or in such other timeframe as may be agreed between the undertaker and National Grid) that are subject to the requirements of this Part of this Schedule that will cause any conflict with or breach the terms of any easement and/or other legal or land interest of National Grid and/or affects the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in respect of any apparatus laid or erected in land belonging to or secured by the undertaker, the undertaker must as National Grid reasonably requires enter into such deeds of consent upon such terms and conditions as may be agreed between the undertaker and National Grid acting reasonably and which must be no less favourable on the whole to National Grid unless otherwise agreed by National Grid, and it will be the responsibility of the undertaker to procure and/or secure the consent and entering into of such deeds and variations by all other third parties with an interest in the land at that time who are affected by such authorised works.

(3) The undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Part of this Schedule relating to the relocation and/or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid as of right or other use in relation to the apparatus, then the provisions in this Part of this Schedule shall prevail.

(4) Any agreement or consent granted by National Grid under paragraph 9 or any other paragraph of this Part of this Schedule, shall not be taken to constitute agreement under sub-paragraph (1).

Removal of apparatus

7.—(1) If, in the exercise of the agreement reached in accordance with paragraph 6 or in any other authorised manner, the undertaker acquires any interest in any Order land in which any apparatus is placed, that apparatus must not be removed under this Part of this Schedule and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works compromised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph

(3), afford to National Grid to its satisfaction (taking into account paragraph 8(1) below) the necessary facilities and rights—

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between National Grid and the undertaker.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part of this Schedule.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Part of this Schedule, the undertaker affords to or secures for National Grid facilities and rights in land for the construction, use, maintenance and protection in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by National Grid.

(2) If the facilities and rights to be afforded by the undertaker and agreed with National Grid under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject in the matter will be referred to arbitration under paragraph 15 (arbitration) of this Part of this Schedule and the arbitrator shall make such provision for the payment of compensation by the undertaker to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case. In respect of the appointment of an arbitrator under this sub-paragraph (2) article 35 (arbitration) of this Order shall apply.

Retained apparatus: Protection of National Grid as Electricity Undertaker

9.—(1) Not less than 56 days before the commencement of any authorised development that is near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise and to which paragraph 7(2)(a) or 7(2)(b) applies, the undertaker must submit to National Grid a plan and seek from National Grid details of the underground extent of their electricity tower foundations.

(2) In relation to works which will or may be situated on, over, under or within (i) 15 metres measured in any direction of any apparatus, or (ii) involve embankment works within 15 metres of any apparatus, the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;

- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;
- (f) any intended maintenance regimes; and
- (g) an assessment of risks of rise of earth issues.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must in addition to the matters set out in sub-paragraph (2) include a method statement describing—

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
- (c) details of load bearing capacities of trenches;
- (d) details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) a written management plan for high voltage hazard during construction and ongoing maintenance of the cable route;
- (f) written details of the operations and maintenance regime for the cable, including frequency and method of access;
- (g) assessment of earth rise potential if reasonably required by the National Grid's engineers; and
- (h) evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.

(4) The undertaker must not commence any works to which sub-paragraphs (1), (2), or (3) apply until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required under sub-paragraphs (1), (2), or (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (6) or (8); and
- (b) must not be unreasonably withheld.

(6) In relation to a work to which sub-paragraphs (1) (2), or (3) apply, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraphs (2), (3) or (6) as approved or as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5), (6), (8) and/or (9) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid will be entitled to watch and inspect the execution of those works.

(8) Where National Grid requires any protective works to be carried out either by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, inclusive of any measures or schemes required and approved as part of the plan approved pursuant to this paragraph, must be carried out to National Grid's satisfaction prior to the commencement of any authorised development (or any relevant part thereof) to which sub-paragraph (1) applies and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraphs (1), (2), (3) or (6) (except in an emergency).

(9) If National Grid in accordance with sub-paragraphs (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, sub-paragraphs (1) to (3) and (6) to (7) shall apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(10) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of the authorised development, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(11) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any works authorised under the Order, the undertaker must comply with National Grid's policies for development near overhead lines ENA TA 43-8 and the Health and Safety Executive's guidance note 6 "Avoidance of Danger from Overhead Lines".

Expenses

10.—(1) Subject to the following provisions of this paragraph, the undertaker shall pay to National Grid on demand all charges, costs and expenses reasonably anticipated or incurred by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new apparatus or alternative apparatus which may be required in consequence of the execution of any such works as are referred to in this Part of this Schedule including without limitation—

- (a) any costs reasonably incurred or compensation properly paid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that National Grid elects to use compulsory purchase powers to acquire any necessary rights under paragraph 7(3);
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works; and
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part of this Schedule.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part of this Schedule and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part of this Schedule—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement settled by arbitration in accordance with article 35 (arbitration) of this Order to be

necessary, then, if such placing involves cost in the construction of works under this Part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) will be reduced by the amount of that excess save where it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part of this Schedule or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works (including without limitation works carried out by the undertaker under this Part of this Schedule or any subsidence resulting from any of these works), any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purpose of those works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party as aforesaid.

(2) The fact that any act or thing may have been done by National Grid on behalf of the undertaker or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid as a consequence of the authorised development or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (2) where the undertaker fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not materially accord with the approved plan or as otherwise agreed between the undertaker and National Grid.

(3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any part of the authorised development and/or any other works authorised by this Part of this Schedule carried out by National Grid as an assignee, transferee or lessee of the undertaker with the benefit of this Order pursuant to section 156 (benefit of order granting development consent) of the 2008 Act or article 5 (consent to transfer benefit of

Order) of the Order subject to the proviso that once such works become apparatus (“new apparatus”), any works yet to be executed and not falling within this sub-section 11(3)(b) will be subject to the full terms of this Part of this Schedule including this paragraph 11 in respect of such new apparatus.

(4) National Grid must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made, unless payment is required in connection with a statutory compensation scheme without first consulting the undertaker and considering its representations.

(5) National Grid must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 11 applies where it is within National Grid’s reasonable ability and control to do so and which expressly excludes any obligation to mitigate liability arising from third parties which is outside of National Grid’s control. If reasonably requested to do so by the undertaker, National Grid shall provide an explanation of how the claim has been minimised, where possible.

Enactments and agreements

12. Save to the extent provided for to the contrary elsewhere in this Part of this Schedule or by agreement in writing between the undertaker and National Grid, nothing in this Part of this Schedule shall affect the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

13.—(1) Where in consequence of the proposed construction of any of the authorised development, the undertaker or National Grid requires the removal of apparatus under paragraph 7(2) or National Grid makes requirements for the protection or alteration of apparatus under paragraph 9, the undertaker shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of National Grid’s undertaking and National Grid shall use its best endeavours to co-operate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever National Grid’s consent, agreement or approval to is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by the undertaker, it must not be unreasonably withheld or delayed.

Access

14. If in consequence of the agreement reached in accordance with paragraph 6 or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

15. Save for differences or disputes arising under paragraphs 7(2), 7(4), 8(1) and 9 any difference or dispute arising between the undertaker and National Grid under this Part of this Schedule must, unless otherwise agreed in writing between the undertaker and National Grid, be determined by arbitration in accordance with article 35 (arbitration).

Notices

16. The plans submitted to National Grid by the undertaker pursuant to paragraph 9(1) must be sent to National Grid Plant Protection at plantprotection@nationalgrid.com or such other address

as National Grid may from time to time appoint instead for that purpose and notify to the undertaker in writing.

PART 3

PROTECTION FOR OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

1. For the protection of any operator, the following provisions have effect, unless otherwise agreed in writing between the undertaker and the operator.

2. In this Part of this Schedule—

“the 2003 Act” means the Communications Act 2003;

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system is construed in accordance with paragraph 1(3A) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 of Part 2 of the 2003 Act(a);

“electronic communications code network” means—

(a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 of the 2003 Act; and

(b) an electronic communications network which the Secretary of State is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

“operator” means the operator of an electronic communications code network.

3. The exercise of the powers of article 26 (statutory undertakers) are subject to part 10 of Schedule 3A (Undertaker’s works affecting electronic communications apparatus) to the Communications Act 2003(b).

4.—(1) Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or their construction, or of any subsidence resulting from any of those works—

(a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works, or other property of an operator); or

(b) there is any interruption in the supply of the service provided by an operator, the undertaker must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and must—

(i) make reasonable compensation to an operator for loss sustained by it; and

(ii) indemnify an operator against claims, demands, proceedings, costs, damages and expenses which may be made or taken against, or recovered from, or incurred by, an operator by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(a) See section 106.

(b) 2003 c.21.

(3) The operator must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand may be made without the consent of the undertaker which, if it withholds such consent, will have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between the undertaker and the operator under this paragraph must be referred to and settled by arbitration under article 35 (arbitration).

5. This Part of this Schedule does not apply to—

- (a) any apparatus in respect of which the relations between the undertaker and an operator are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) any damage, or any interruption, caused by electro-magnetic interference arising from the construction or use of the authorised development.

6. Nothing in this Part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and an operator in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

PART 4

FOR THE PROTECTION OF THE DRAINAGE AUTHORITIES

1. The provisions of this Part have effect for the protection of a drainage authority unless otherwise agreed in writing between undertaker and the drainage authority.

2. In this Part—

“commence” has the same meaning as in article 2 of this Order and commencement shall be construed to have the same meaning;

“construction” includes execution, placing, altering, replacing, relaying and removal; and “construct” and “constructed” must be construed accordingly;

“drainage authority” means the drainage board concerned within the meaning of section 23 of the Land Drainage Act 1991;

“drainage work” means any watercourse including any land that provides or is expected to provide flood storage capacity for any watercourse and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence, sea defence or tidal monitoring excluding the existing flood defence;

“ordinary watercourse” has the meaning given in the Land Drainage Act 1991(a);

“plans” includes sections, drawings, specifications and method statements;

“specified work” means so much of any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to—

- (a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work;
- (b) affect the flow, purity, or quality of water in any watercourse; or
- (c) affect the conservation, distribution or use of water resources.

3.—(1) Before beginning to construct any specified work, the undertaker must submit to the drainage authority plans of the specified work and such further particulars available to it as the drainage authority may within 28 days of the submission of the plans reasonably require.

(2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the drainage authority or determined under paragraph 3.

(a) 1991 c.59, section 72(1).

- (3) Any approval of the drainage authority required under this paragraph—
- (a) must not be unreasonably withheld or delayed;
 - (b) is deemed to have been given if it is neither given nor refused within 2 months of the submission of the plans for approval (or submission of further particulars if required by the drainage authority under sub-paragraph (1)) or, in the case of a refusal, if it is not accompanied by a statement of the grounds of refusal; and
 - (c) may be given subject to such reasonable requirements as the drainage authority may make for the protection of any drainage work.

(4) The drainage authority must use its reasonable endeavours to respond to the submission of any plans before the expiration of the period mentioned in sub-paragraph (3)(b).

4. Without limiting paragraph 3, the requirements which the drainage authority may make under that paragraph include conditions requiring the undertaker at its own expense to construct such protective works, whether temporary or permanent, during the construction of the specified work (including the provision of flood banks, walls or embankments or other new works and the strengthening, repair or renewal of existing banks, walls or embankments) as are reasonably necessary—

- (a) to safeguard any drainage work against damage; or
- (b) to secure that its efficiency for flood defence purposes is not impaired and that the risk of flooding is not otherwise increased,

by reason of any specified work.

5.—(1) Subject to sub-paragraph (2), any specified work, and all protective works required by the drainage authority under paragraph 4, must be constructed—

- (a) without unreasonable delay in accordance with the plans approved or deemed to have been approved or settled under this Part; and
- (b) to the reasonable satisfaction of the drainage authority,

and an officer of the drainage authority is entitled to watch and inspect the construction of such works.

(2) The undertaker must give to the drainage authority—

- (a) not less than 14 days' notice in writing of its intention to commence construction of any specified work; and
- (b) notice in writing of its completion not later than 7 days after the date on which it is brought into use.

(3) If the drainage authority reasonably requires, the undertaker must construct all or part of the protective works so that they are in place before the construction of the specified work.

(4) If any part of a specified work or any protective work required by the drainage authority is constructed otherwise than in accordance with the requirements of this Part, the drainage authority may by notice in writing require the undertaker at the undertaker's expense to comply with the requirements of this Part or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the drainage authority reasonably requires.

(5) Subject to sub-paragraph (6), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (4) is served on the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the drainage authority may execute the works specified in the notice, and any expenditure incurred by it in so doing is recoverable from the undertaker.

(6) In the event of any dispute as to whether sub-paragraph (4) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the drainage authority must not except in

emergency exercise the powers conferred by sub-paragraph (4) until the dispute has been finally determined.

6.—(1) Subject to sub-paragraph (5) the undertaker must from the commencement of the construction of any specified work maintain in good repair and condition and free from obstruction any drainage work that is situated within the limits of deviation on land held by the undertaker for the purposes of or in connection with the specified work, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence.

(2) If any drainage work that the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the drainage authority, the drainage authority may by notice in writing require the undertaker to repair and restore the work, or any part of such work, or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed), to remove the work and restore the site to its former condition, to such extent and within such limits as the drainage authority reasonably requires.

(3) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph (2) on the undertaker, the undertaker has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the drainage authority may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the drainage authority must not except in a case of emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

(5) This paragraph does not apply to—

- (a) drainage works that are vested in the drainage authority or that the drainage authority or another person is liable to maintain and is not prevented by this Order from so doing; and
- (b) any obstruction of a drainage work for the purpose of a work or operation authorised by this Order and carried out in accordance with the provisions of this Part.

7. If by reason of the construction of any specified work or of the failure of any such work the efficiency of any drainage work for flood defence purposes is impaired, or the drainage work is otherwise damaged, the impairment or damage must be made good by the undertaker to the reasonable satisfaction of the drainage authority and, if the undertaker fails to do so, the drainage authority may make good the impairment or damage and recover from the undertaker the expense reasonably incurred by it in doing so.

8. The undertaker must indemnify the drainage authority in respect of all costs, charges and expenses that the drainage authority may reasonably incur, have to pay or may sustain—

- (a) in the examination or approval of plans under this Part;
- (b) in inspecting the construction of any specified work or any protective works required by the drainage authority under this Part; and
- (c) in carrying out of any surveys or tests by the drainage authority that are reasonably required in connection with the construction of the specified work.

9.—(1) Without limiting the other provisions of this Part, the undertaker must indemnify the drainage authority in respect of all claims, demands, proceedings, costs, damages, expenses or loss that may be made or taken against, recovered from or incurred by, the drainage authority by reason of—

- (a) any damage to any drainage work so as to impair its efficiency for the purposes of flood defence;
- (b) any raising or lowering of the water table in land adjoining the authorised development or any sewers, drains and watercourses; or
- (c) any flooding or increased flooding of any such land,

that is caused by the construction of any specified work or any act or omission of the undertaker, its contractors, agents or employees whilst engaged on the work.

(2) The drainage authority must give to the undertaker reasonable notice of any such claim or demand, and no settlement or compromise may be made without the agreement of the undertaker (such agreement not to be unreasonably withheld or delayed).

10. The fact that any work or thing has been executed or done by the undertaker in accordance with a plan approved or deemed to be approved by the drainage authority, or to its satisfaction, or in accordance with any directions or award of an arbitrator, does not relieve the undertaker from any liability under this Part.

11. Any dispute between the undertaker and the drainage authority under this Part, if the parties agree, must be determined by arbitration under article 35 (arbitration).

PART 5

FOR THE PROTECTION OF BLUE TRANSMISSION LONDON ARRAY LIMITED

Application

1. For the protection of BTLAL referred to in this Part of this Schedule the following provisions will have effect, unless otherwise agreed in writing between the undertaker and BTLAL.

Interpretation

2. In this Part of this Schedule—

“agreements” means (i) the Cooperation Agreement and (ii) the Land and Works Agreement in the agreed form, or substantially the same form, as the terms settled between BTLAL and the undertaker on 12 November 2019, or as otherwise agreed in writing between the undertaker and BTLAL;

“apparatus” means the existing cables having transportation of electric power as its primary purpose and any existing associated low voltage, fibre-optic control or communications cable from the London Array offshore windfarm to the BTLAL substation at Cleve Hill near Graveney;

“BTLAL” means Blue Transmission London Array Limited (company number 08275752);

“cable corridor land” means all land in which the apparatus lies as identified on Sheet 3 of the Land Plan labelled 3/05;

“commence” has the same meaning as in article 2 of this Order and commencement must be construed to have the same meaning;

“lenders” means those parties having loaned monies to BTLAL in respect of the apparatus at the time the agreements are entered into.

Agreements

3. If, at any point during the construction of the development any work is to be undertaken on the cable corridor land the undertaker shall not commence the works unless—

- (a) the agreements have been entered into by the undertaker and BTLAL; or
- (b) in the event the agreements are not entered into, such alternative protection as determined pursuant to paragraph 5 is in place for the protection of BTLAL.

Co-operation

4.—(1) If reasonable and equitable amendments are required by the lenders, but only where as a consequence of achieving the approval of the agreements from those lenders, the undertaker and BTLAL shall co-operate with each other and at all times act in good faith for the purpose of trying to agree those amendments.

(2) For the avoidance of doubt whenever the undertaker's or BTLAL's consent, agreement or approval is required under this Part of this Schedule it must not be unreasonably withheld or delayed.

Arbitration

5. Any difference or dispute arising between the undertaker and BTLAL under this Part of this Schedule, including but not limited to the terms of the agreements, must, unless otherwise agreed in writing between the undertaker and BTLAL, be determined by arbitration in accordance with article 35 (arbitration).

PART 6

FOR THE PROTECTION OF UKPN

1. For the protection of UKPN as referred to in this part of this Schedule the following provisions have effect, unless otherwise agreed in writing between the undertaker and UKPN.

2. In this part of this Schedule—

“alternative apparatus” means alternative apparatus adequate to enable UKPN to fulfil its statutory functions in a manner not less efficient than previously;

“apparatus” means electric lines or electrical plant (as defined in the 1989 Act), belonging to or maintained by UKPN;

“functions” includes powers and duties;

“in”, in a context referring to apparatus or alternative apparatus in land, includes a reference to apparatus or alternative apparatus under, over or upon land; and

“UKPN” means South Eastern Power Networks plc (Company No. 03043097) whose registered office is at Newington House, 237 Southwark Bridge Road, London SE1 6NP;

3. This part of this Schedule does not apply to apparatus in respect of which the relations between the undertaker and UKPN are regulated by the provisions of Part 3 of the 1991 Act.

4. Regardless of the temporary prohibition or restriction of use of streets under the powers conferred by article 10 (temporary stopping up of streets), UKPN is at liberty at all times to take all necessary access across any such street and to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the prohibition or restriction was in that street.

5. Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

6.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed or over which access to any apparatus is enjoyed or requires that UKPN's apparatus is relocated or diverted, that apparatus must not be removed under this part of this Schedule, and any right of UKPN to maintain that apparatus in that land and to gain access to it must not be extinguished, until alternative apparatus has been constructed and is in operation, and access to it has been provided, to the reasonable satisfaction of UKPN in accordance with sub-paragraphs (2) to (7).

(2) If, for the purpose of executing any works in, on or under any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed

in that land, the undertaker must give to UKPN written notice of that requirement, together with a plan and section of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order UKPN reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to UKPN the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, UKPN must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed provided that this obligation shall not require UKPN to exercise any power it may have to acquire any land or rights by compulsory purchase order.

(4) Any alternative apparatus to be constructed in land of the undertaker under this part of this Schedule must be constructed in such manner and in such line or situation as may be agreed between UKPN and the undertaker or in default of agreement settled by arbitration in accordance with article 35 (arbitration).

(5) UKPN must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 35 (arbitration), and after the grant to UKPN of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this part of this Schedule.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to UKPN that it desires itself to execute any work, or part of any work, in connection with the construction or removal of apparatus in any land controlled by the undertaker, that work, instead of being executed by UKPN, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of UKPN.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

7.—(1) Where, in accordance with the provisions of this part of this Schedule, the undertaker affords to UKPN facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and UKPN or in default of agreement settled by arbitration in accordance with article 35 (arbitration).

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to UKPN than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to UKPN as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

8.—(1) Not less than 28 days before starting the execution of any works in, on or under any land purchased, held, appropriated or used under this Order that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 6(2), the undertaker must submit to UKPN a plan, section and description of the works to be executed.

(2) Those works must be executed only in accordance with the plan, section and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by UKPN for the alteration or otherwise for the

protection of the apparatus, or for securing access to it, and UKPN is entitled to watch and inspect the execution of those works.

(3) Any requirements made by UKPN under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If UKPN in accordance with sub-paragraph (3) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 6 and 7 apply as if the removal of the apparatus had been required by the undertaker under paragraph 6(2).

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to UKPN notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

9.—(1) Subject to the following provisions of this paragraph, the undertaker must repay to UKPN the reasonable expenses incurred by UKPN in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 6(2).

(2) There is to be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this part of this Schedule, that value being calculated after removal.

(3) If in accordance with the provisions of this part of this Schedule—

(a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or

(b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 35 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this part of this Schedule exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to UKPN by virtue of sub-paragraph (1) is to be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (3)—

(a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus where such extension is required in consequence of the execution of any such works as are referred to in paragraph 6(2); and

(b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to UKPN in respect of works by virtue of sub-paragraph (1), if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on UKPN

any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, is to be reduced by the amount which represents that benefit.

10.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any of the works referred to in paragraph 6(2), any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of UKPN, or there is any interruption in any service provided, or in the supply of any goods, by UKPN, the undertaker must—

- (a) bear and pay the cost reasonably incurred by UKPN in making good such damage or restoring the supply; and
- (b) indemnify UKPN for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from UKPN,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of UKPN, its officers, servants, contractors or agents.

(3) UKPN must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise is to be made without the consent of the undertaker which, if it withholds such consent, has the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

11. Nothing in this part of this Schedule affects the provisions of any enactment or agreement regulating the relations between the undertaker and UKPN in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

12. Any difference under this Part of this Schedule must, unless otherwise agreed in writing between the undertaker and UKPN, be determined by arbitration in accordance with article 35 (arbitration).

DEEMED MARINE LICENCE UNDER THE 2009 ACT

PART 1

LICENSED MARINE ACTIVITIES

1.—(1) In this licence—

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“authorised deposits” means the substances and articles specified in paragraph 3 of Part 1 of this licence;

“authorised development” means the development and associated development described in Part 1 of Schedule 1 (authorised development) of the Order;

“commence” means the first carrying out of any licensed marine activities authorised by this marine licence;

“condition” means a condition in Part 2 of this licence;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“existing flood defence” means the existing bund and integrated infrastructure located beneath the path known as the Saxon Shore Way and to the north and west of the authorised development;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“MMO” means the Marine Management Agency, the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

“the location, order limits and grid coordinates plan” means the plan certified as the location, order limits and grid coordinates plan by the Secretary of State for the purposes of the Order under article 34 (certification of plans and documents, etc.);

“MHWS” means the highest level which spring tides reach on average over a period of time;

“Order” means the Cleve Hill Solar Park Order 2020;

“undertaker” means Cleve Hill Solar Park Limited (company number 08904850);

“Work No. 9” means the work of that description in Schedule 1 of the Order; and

“works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument is construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) Unless otherwise indicated—

(a) all times are taken to be Greenwich Mean Time (GMT); and

(b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

(4) Except where otherwise notified in writing by the MMO, notices to the MMO must be sent to—

- (a) Marine Management Organisation
Marine Licensing

Lancaster House
Newcastle Business Park
Newcastle upon Tyne
NE4 7YH
Tel: 0300 123 1032; and

- (b) Marine Management Organisation (local office)
Fish Market
Rock-A-Nore Road
Hastings
East Sussex
TN34 3DW

Details of licensed marine activities

2.—(1) Subject to the licence conditions, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act which—

- (a) form part of, or are related to, the authorised development; and
- (b) are not exempt from requiring a marine licence by virtue of any provision made under section 74 of the 2009 Act.

(2) Such activities are authorised in relation to—

Work No.9— works to maintain the existing flood defence, comprising—

- (a) inspection;
- (b) investigation (above MHWS, inclusive of trial pitting);
- (c) replacement of expansion joint material;
- (d) concrete repair (to a standard specified in BS EN 1504);
- (e) replacement of concrete toe beam;
- (f) vegetation management (including grass cutting and removal of larger vegetation);
- (g) replacement of loose and missing block work;
- (h) repair of voids;
- (i) fencing repair and replacement;
- (j) servicing outfalls;
- (k) cleaning outfall ancillary structures;
- (l) topping up of embankment crest levels at localised low spots;
- (m) vermin control;
- (n) repairs of rutting in crest;
- (o) repointing of jointed structures;
- (p) replacing modular blocks;
- (q) replacement of toe armour as required;
- (r) reinstatement of timber toe piles;
- (s) timber groyne plank replacement;
- (t) replacement of bolts on groyne;
- (u) placement of timber rubbing boards on groyne;
- (v) localised movements of beach material;
- (w) cleaning/dredging of drainage ditch channels;

- (x) replacement of pitching where present;
- (y) replacement of access structures;
- (z) painting; and
- (aa) any other activities required to be undertaken which—
 - (i) use the same materials as those on the existing flood defence;
 - (ii) do not alter the plan form or cross section of the existing flood defence;
 - (iii) do not provide an overall increase or reduction in flood level; and
 - (iv) do not require excavations of beach material deeper than 1.5 metres.

3. The substances or articles authorised for deposit at sea include—

- (a) iron and steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) timber;
- (f) plastic and synthetics;
- (g) marine coatings; and
- (h) material extracted from within the offshore Order limits.

4. The grid coordinates for that part of the authorised development comprising Work No. 9 are specified below and more particularly on the location, order limits and grid coordinates plan—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	51° 19' 56.946" N	0° 54' 46.089" E	100	51° 20' 32.408" N	0° 54' 7.763" E
2	51° 19' 58.535" N	0° 54' 45.298" E	101	51° 20' 33.143" N	0° 54' 9.545" E
3	51° 19' 58.708" N	0° 54' 45.201" E	102	51° 20' 34.285" N	0° 54' 13.532" E
4	51° 19' 59.027" N	0° 54' 45.080" E	103	51° 20' 35.087" N	0° 54' 17.689" E
5	51° 19' 59.384" N	0° 54' 44.724" E	104	51° 20' 35.317" N	0° 54' 21.662" E
6	51° 19' 59.960" N	0° 54' 44.350" E	105	51° 20' 37.215" N	0° 54' 36.902" E
7	51° 20' 1.300" N	0° 54' 43.858" E	106	51° 20' 37.791" N	0° 54' 38.342" E
8	51° 20' 2.911" N	0° 54' 42.665" E	107	51° 20' 37.114" N	0° 54' 46.675" E
9	51° 20' 3.116" N	0° 54' 42.384" E	108	51° 20' 37.181" N	0° 54' 46.705" E
10	51° 20' 4.788" N	0° 54' 40.819" E	109	51° 20' 37.035" N	0° 54' 49.041" E
11	51° 20' 4.959" N	0° 54' 40.563" E	110	51° 20' 36.955" N	0° 54' 49.652" E
12	51° 20' 5.438" N	0° 54' 40.227" E	111	51° 20' 36.954" N	0° 54' 49.874" E
13	51° 20' 6.231" N	0° 54' 38.746" E	112	51° 20' 36.983" N	0° 54' 50.130" E
14	51° 20' 6.637" N	0° 54' 38.090" E	113	51° 20' 36.985" N	0° 54' 50.419" E
15	51° 20' 7.311" N	0° 54' 36.551" E	114	51° 20' 36.920" N	0° 54' 50.652" E
16	51° 20' 7.817" N	0° 54' 35.012" E	115	51° 20' 37.006" N	0° 54' 51.158" E
17	51° 20' 8.559" N	0° 54' 30.512" E	116	51° 20' 37.215" N	0° 54' 50.375" E
18	51° 20' 8.713" N	0° 54' 28.690" E	117	51° 20' 37.673" N	0° 54' 46.063" E
19	51° 20' 8.886" N	0° 54' 27.093" E	118	51° 20' 38.109" N	0° 54' 39.463" E
20	51° 20' 8.229" N	0° 54' 29.798" E	119	51° 20' 36.284" N	0° 54' 26.251" E
21	51° 20' 7.773" N	0° 54' 32.964" E	120	51° 20' 35.445" N	0° 54' 16.667" E
22	51° 20' 6.916" N	0° 54' 36.190" E	121	51° 20' 34.876" N	0° 54' 13.691" E
23	51° 20' 5.271" N	0° 54' 39.948" E	122	51° 20' 33.400" N	0° 54' 8.742" E
24	51° 20' 1.514" N	0° 54' 43.309" E	123	51° 20' 32.885" N	0° 54' 7.478" E

25	51° 19' 59.852" N	0° 54' 43.782" E	124	51° 20' 32.714" N	0° 54' 5.934" E
26	51° 20' 11.941" N	0° 54' 13.217" E	125	51° 20' 32.081" N	0° 54' 3.003" E
27	51° 20' 11.877" N	0° 54' 12.095" E	126	51° 20' 36.869" N	0° 54' 51.672" E
28	51° 20' 11.663" N	0° 54' 10.398" E	127	51° 20' 36.819" N	0° 54' 51.640" E
29	51° 20' 11.436" N	0° 54' 9.385" E	128	51° 20' 36.762" N	0° 54' 51.642" E
30	51° 20' 10.399" N	0° 54' 6.406" E	129	51° 20' 36.711" N	0° 54' 51.724" E
31	51° 20' 10.522" N	0° 54' 7.338" E	130	51° 20' 36.674" N	0° 54' 51.969" E
32	51° 20' 10.085" N	0° 53' 46.895" E	131	51° 20' 36.662" N	0° 54' 52.243" E
33	51° 20' 10.324" N	0° 53' 47.052" E	132	51° 20' 36.643" N	0° 54' 52.308" E
34	51° 20' 10.497" N	0° 53' 47.265" E	133	51° 20' 36.557" N	0° 54' 52.486" E
35	51° 20' 10.555" N	0° 53' 47.377" E	134	51° 20' 36.597" N	0° 54' 52.469" E
36	51° 20' 10.609" N	0° 53' 47.678" E	135	51° 20' 36.651" N	0° 54' 52.486" E
37	51° 20' 10.685" N	0° 53' 56.589" E	136	51° 20' 42.418" N	0° 55' 36.744" E
38	51° 20' 10.577" N	0° 53' 57.633" E	137	51° 20' 42.431" N	0° 55' 37.288" E
39	51° 20' 10.677" N	0° 53' 57.274" E	138	51° 20' 42.700" N	0° 55' 40.210" E
40	51° 20' 10.741" N	0° 53' 56.919" E	139	51° 20' 42.775" N	0° 55' 40.607" E
41	51° 20' 10.759" N	0° 53' 56.703" E	140	51° 20' 42.916" N	0° 55' 40.911" E
42	51° 20' 10.691" N	0° 53' 47.644" E	141	51° 20' 42.913" N	0° 55' 41.691" E
43	51° 20' 10.658" N	0° 53' 47.286" E	142	51° 20' 43.090" N	0° 55' 42.369" E
44	51° 20' 10.631" N	0° 53' 47.191" E	143	51° 20' 43.208" N	0° 55' 42.254" E
45	51° 20' 10.417" N	0° 53' 46.970" E	144	51° 20' 43.241" N	0° 55' 43.046" E
46	51° 20' 10.380" N	0° 53' 46.880" E	145	51° 20' 43.362" N	0° 55' 43.772" E
47	51° 20' 10.348" N	0° 53' 46.718" E	146	51° 20' 43.555" N	0° 55' 43.598" E
48	51° 20' 10.380" N	0° 53' 46.503" E	147	51° 20' 43.523" N	0° 55' 44.092" E
49	51° 20' 10.447" N	0° 53' 46.302" E	148	51° 20' 43.570" N	0° 55' 44.669" E
50	51° 20' 27.907" N	0° 53' 46.744" E	149	51° 20' 43.671" N	0° 55' 45.270" E
51	51° 20' 27.862" N	0° 53' 47.043" E	150	51° 20' 43.799" N	0° 55' 45.070" E
52	51° 20' 27.876" N	0° 53' 47.230" E	151	51° 20' 43.780" N	0° 55' 45.567" E
53	51° 20' 27.830" N	0° 53' 47.672" E	152	51° 20' 43.948" N	0° 55' 46.756" E
54	51° 20' 27.699" N	0° 53' 48.253" E	153	51° 20' 44.306" N	0° 55' 48.368" E
55	51° 20' 27.585" N	0° 53' 48.411" E	154	51° 20' 44.687" N	0° 55' 49.791" E
56	51° 20' 27.555" N	0° 53' 48.435" E	155	51° 20' 45.757" N	0° 55' 54.594" E
57	51° 20' 27.538" N	0° 53' 48.625" E	156	51° 20' 47.241" N	0° 56' 2.207" E
58	51° 20' 27.517" N	0° 53' 48.660" E	157	51° 20' 47.983" N	0° 56' 6.651" E
59	51° 20' 27.406" N	0° 53' 48.710" E	158	51° 20' 48.152" N	0° 56' 6.491" E
60	51° 20' 27.376" N	0° 53' 48.744" E	159	51° 20' 48.092" N	0° 56' 6.958" E
61	51° 20' 27.358" N	0° 53' 48.805" E	160	51° 20' 48.096" N	0° 56' 7.304" E
62	51° 20' 27.357" N	0° 53' 48.852" E	161	51° 20' 48.226" N	0° 56' 7.918" E
63	51° 20' 27.320" N	0° 53' 49.159" E	162	51° 20' 48.436" N	0° 56' 7.698" E
64	51° 20' 27.275" N	0° 53' 49.275" E	163	51° 20' 48.394" N	0° 56' 8.208" E
65	51° 20' 27.252" N	0° 53' 49.310" E	164	51° 20' 48.416" N	0° 56' 8.607" E
66	51° 20' 27.112" N	0° 53' 49.343" E	165	51° 20' 48.474" N	0° 56' 8.816" E
67	51° 20' 27.084" N	0° 53' 49.434" E	166	51° 20' 48.520" N	0° 56' 8.981" E
68	51° 20' 27.059" N	0° 53' 49.665" E	167	51° 20' 48.530" N	0° 56' 9.101" E
69	51° 20' 27.036" N	0° 53' 49.798" E	168	51° 20' 48.516" N	0° 56' 9.227" E
70	51° 20' 26.925" N	0° 53' 50.097" E	169	51° 20' 48.514" N	0° 56' 9.358" E
71	51° 20' 26.949" N	0° 53' 50.133" E	170	51° 20' 48.592" N	0° 56' 9.802" E
72	51° 20' 27.049" N	0° 53' 49.908" E	171	51° 20' 48.676" N	0° 56' 10.128" E

73	51° 20' 27.113" N	0° 53' 49.705" E	172	51° 20' 48.616" N	0° 56' 7.869" E
74	51° 20' 27.164" N	0° 53' 49.465" E	173	51° 20' 48.857" N	0° 56' 14.026" E
75	51° 20' 27.246" N	0° 53' 49.429" E	174	51° 20' 48.852" N	0° 56' 14.100" E
76	51° 20' 27.272" N	0° 53' 49.410" E	175	51° 20' 48.844" N	0° 56' 14.168" E
77	51° 20' 27.326" N	0° 53' 49.330" E	176	51° 20' 48.807" N	0° 56' 14.326" E
78	51° 20' 27.347" N	0° 53' 49.270" E	177	51° 20' 48.722" N	0° 56' 14.640" E
79	51° 20' 27.374" N	0° 53' 49.080" E	178	51° 20' 48.645" N	0° 56' 15.364" E
80	51° 20' 27.403" N	0° 53' 48.953" E	179	51° 20' 48.916" N	0° 56' 17.077" E
81	51° 20' 27.459" N	0° 53' 48.796" E	180	51° 20' 44.526" N	0° 56' 52.481" E
82	51° 20' 27.534" N	0° 53' 48.775" E	181	51° 20' 44.523" N	0° 56' 53.111" E
83	51° 20' 27.577" N	0° 53' 48.731" E	182	51° 20' 44.613" N	0° 56' 53.520" E
84	51° 20' 27.605" N	0° 53' 48.666" E	183	51° 20' 44.607" N	0° 56' 53.654" E
85	51° 20' 27.622" N	0° 53' 48.491" E	184	51° 20' 44.472" N	0° 56' 54.152" E
86	51° 20' 27.695" N	0° 53' 48.408" E	185	51° 20' 44.365" N	0° 56' 54.631" E
87	51° 20' 27.763" N	0° 53' 48.293" E	186	51° 20' 44.337" N	0° 56' 54.961" E
88	51° 20' 27.942" N	0° 53' 47.338" E	187	51° 20' 44.341" N	0° 56' 55.338" E
89	51° 20' 27.948" N	0° 53' 47.235" E	188	51° 20' 44.188" N	0° 56' 56.399" E
90	51° 20' 27.910" N	0° 53' 47.165" E	189	51° 20' 44.193" N	0° 56' 56.709" E
91	51° 20' 27.920" N	0° 53' 47.052" E	190	51° 20' 44.268" N	0° 56' 57.174" E
92	51° 20' 27.939" N	0° 53' 46.941" E	191	51° 20' 49.033" N	0° 56' 20.247" E
93	51° 20' 27.963" N	0° 53' 46.853" E	192	51° 20' 48.835" N	0° 56' 14.262" E
94	51° 20' 27.997" N	0° 53' 46.798" E	193	51° 20' 48.854" N	0° 56' 14.137" E
95	51° 20' 30.414" N	0° 53' 56.932" E	194	51° 20' 48.859" N	0° 56' 14.060" E
96	51° 20' 30.486" N	0° 53' 58.149" E	195	51° 20' 47.432" N	0° 56' 30.037" E
97	51° 20' 30.389" N	0° 53' 58.557" E	196	51° 20' 47.356" N	0° 56' 30.457" E
98	51° 20' 31.727" N	0° 54' 3.734" E	197	51° 20' 46.743" N	0° 56' 35.249" E
99	51° 20' 32.193" N	0° 54' 5.976" E	198	51° 20' 46.536" N	0° 56' 37.296" E

5. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) relating to the transfer of the licence only apply to a transfer not falling within article 5 (consent to transfer benefit of Order).

6. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or project are taken to include any amendments that may subsequently be approved in writing by the MMO.

7. Any amendments to or variations from the approved details must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the relevant planning authority or that other person that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

PART 2 CONDITIONS

Notifications regarding licensed activities

1. The licence holder must inform the MMO in writing of the commencement of the first licensed activity at least 24 hours prior to such commencement.

2.—(1) The licence holder must inform the MMO of the name and function of any agent or contractor appointed to engage in any licensed activity not less than 24 hours before the commencement of the licensed activity in question.

(2) Any changes to details supplied under sub-paragraph (1) must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activity in question.

(3) Only those persons notified to the MMO in accordance with this condition are permitted to carry out a licensed activity.

3. The licence holder must ensure that a copy of this Schedule has been read and understood by any agents and contractors that will be carrying out any licensed activity on behalf of the licence holder, as notified to the MMO under condition 10.

4. Copies of this Schedule must be available for inspection at the following locations—

- (a) the licence holder's registered office; and
- (b) during the construction of the authorised development only, at any site office which is adjacent to or near the river and which has been provided for the purposes of the construction of the authorised development.

Pollution prevention

5. The licence holder must—

- (a) not discharge waste concrete slurry or wash water from concrete, or cement into the marine environment, and where practicable, site concrete and cement mixing and washing areas at least 10 metres away from the marine environment and any surface water drain to minimise the risk of run off entering the marine environment;
- (b) store, handle, transport and use fuels, lubricants, chemicals and other substances so as to prevent releases into the marine environment, including bunding or storage of 110% of the total volume of all reservoirs and containers;
- (c) report any spill of oil, fuel or chemicals into the marine area to the MMO Marine Pollution Response Team (by telephone, within office hours on 0300 200 2024, or outside office hours on 07770 977 825, and at all times, if no response to calls to those numbers, on 0345 051 8486 or via email using dispersants@marinemanagement.org.uk) within 12 hours of the spill occurring;
- (d) store all waste in designated areas that are isolated from surface water drains and open water and are bunded;
- (e) use suitable protective sheeting to prevent dust, debris (including paints and solvents) and rebounded or windblown concrete from entering the water environment, and rebounded material must be cleared away before the sheeting is removed;
- (f) ensure that any coatings and any treatments are suitable for use in the marine environment and are used in accordance with either guidelines approved by the Health and Safety Executive or the Environment Agency;
- (g) not use priority substances and polluting chemicals listed under the Environmental Quality Standards Directive during works.

Post-construction

6. The licence holder must remove all temporary structures, waste and debris associated with the construction activities within 6 weeks following completion of the final construction activity.

Maintenance

7.—(1) Unless otherwise agreed by the MMO, the licenced activities may not commence until a maintenance plan has been approved in writing by the MMO.

(2) The maintenance plan must be submitted at least 6 weeks prior to the commencement of any maintenance activity, and must include details of the maintenance activities required including location, duration, timings, methodology and materials to be used.

(3) Maintenance activities must be undertaken in accordance with the agreed plan.

SCHEDULE 9

Article 35

ARBITRATION RULES

Primary objective

1.—(1) The primary objective of these arbitration rules is to achieve a fair, impartial, final and binding award on the substantive difference between the parties (save as to costs) within 4 months from the date the arbitrator is appointed pursuant to article 35 of this Order.

(2) The arbitration will be deemed to have commenced when a party (“the Claimant”) serves a written notice of arbitration on the other party (“the Respondent”).

Time periods

2.—(1) All time periods in these arbitration rules will be measured in days and this will include weekends, but not bank or public holidays.

(2) Time periods will be calculated from the day after the arbitrator is appointed which is either—

- (a) the date the arbitrator notifies the parties in writing of his/her acceptance of an appointment by agreement of the parties; or
- (b) the date the arbitrator is appointed by the Secretary of State.

Timetable

3.—(1) The timetable for the arbitration will be that set out in sub-paragraphs (2) to (4) below unless amended in accordance with paragraph 5(3).

(2) Within 14 days of the arbitrator being appointed, the Claimant will provide both the Respondent and the arbitrator with—

- (a) a written Statement of Claim which describes the nature of the difference between the parties, the legal and factual issues, the Claimant’s contentions as to those issues, the amount of its claim and/or the remedy it is seeking;
- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports.

(3) Within 14 days of receipt of the Claimant’s statements under sub-paragraph (2) by the arbitrator and Respondent, the Respondent will provide the Claimant and the arbitrator with—

- (a) a written Statement of Defence responding to the Claimant’s Statement of Claim, its statement in respect of the nature of the difference, the legal and factual issues in the Claimant’s claim, its acceptance of any element(s) of the Claimant’s claim, its contentions as to those elements of the Claimant’s claim it does not accept;
- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports;
- (c) any objections it wishes to make to the Claimant’s statements, comments on the Claimant’s expert report(s) (if submitted by the Claimant) and explanations of the objections.

(4) Within 7 days of the Respondent serving its statements under sub-paragraph (3), the Claimant may make a Statement of Reply by providing both the Respondent and the arbitrator with—

- (a) a written statement responding to the Respondent's submissions, including its reply in respect of the nature of the difference, the issues (both factual and legal) and its contentions in relation to the issues;
- (b) all statements of evidence and copies of documents in response to the Respondent's submissions;
- (c) any expert report in response to the Respondent's submissions;
- (d) any objections to the statements of evidence, expert reports or other documents submitted by the Respondent;
- (e) its written submissions in response to the legal and factual issues involved.

Procedure

4.—(1) The parties' pleadings, witness statements and expert reports (if any) will be concise. No single pleading will exceed 30 single-sided A4 pages using 10pt Arial font.

(2) The arbitrator will make an award on the substantive difference(s) based solely on the written material submitted by the parties unless the arbitrator decides that a hearing is necessary to explain or resolve any matters.

(3) Either party may, within 2 days of delivery of the last submission, request a hearing giving specific reasons why it considers a hearing is required.

(4) Within 7 days of receiving the last submission, the arbitrator will notify the parties whether a hearing is to be held and the length of that hearing.

(5) Within 10 days of the arbitrator advising the parties that he/she will hold a hearing, the date and venue for the hearing will be fixed by agreement with the parties, save that if there is no agreement the arbitrator is to direct a date and venue which he/she considers is fair and reasonable in all the circumstances. The date for the hearing must not be less than 35 days from the date of the arbitrator's direction confirming the date and venue of the hearing.

(6) A decision will be made by the arbitrator on whether there is any need for expert evidence to be submitted orally at the hearing. If oral expert evidence is required by the arbitrator, then any expert(s) attending the hearing may be asked questions by the arbitrator.

(7) There will be no process of examination and cross-examination of experts, but the arbitrator must invite the parties to ask questions of the experts by way of clarification of any answers given by the expert(s) in response to the arbitrator's questions. Prior to the hearing the procedure for the expert(s) will be that—

- (a) at least 28 days before a hearing, the arbitrator will provide a list of issues to be addressed by the expert(s);
- (b) if more than one expert is called, they will jointly confer and produce a joint report or reports within 14 days of the issues being provided; and
- (c) the form and content of a joint report must be as directed by the arbitrator and must be provided at least 7 days before the hearing.

(8) Within 14 days of a hearing or a decision by the arbitrator that no hearing is to be held, the parties may by way of exchange provide the arbitrator with a final submission in connection with the matters in dispute and any submissions on costs. The arbitrator must take these submissions into account in the award.

(9) The arbitrator may make other directions or rulings as considered appropriate in order to ensure that the parties comply with the timetable and procedures to achieve an award on the substantive difference within 4 months of the date on which he/she is appointed, unless both parties otherwise agree to an extension to the date for the award.

(10) If a party fails to comply with the timetable, procedure or any other direction then the arbitrator may continue in the absence of a party or submission or document, and may make a decision on the information before him/her attaching the appropriate weight to any evidence submitted beyond any timetable or in breach of any procedure and/or direction.

(11) The arbitrator's award must include reasons. The parties must accept that the extent to which reasons are given must be proportionate to the issues in dispute and the time available to the arbitrator to deliver the award.

Arbitrator's powers

5.—(1) The arbitrator has all the powers of the Arbitration Act 1996, including the non-mandatory sections, save where modified by these Rules in this Schedule.

(2) There must be no discovery or disclosure, except that the arbitrator is to have the power to order the parties to produce such documents as are reasonably requested by another party no later than the Statement of Reply, or by the arbitrator, where the documents are manifestly relevant, specifically identified and the burden of production is not excessive. Any application and orders should be made by way of a Redfern Schedule without any hearing.

(3) Any time limits fixed in accordance with this procedure or by the arbitrator may be varied by agreement between the parties, subject to any such variation being acceptable to and approved by the arbitrator. In the absence of agreement, the arbitrator may vary the timescales and/or procedure—

- (a) if the arbitrator is satisfied that a variation of any fixed time limit is reasonably necessary to avoid a breach of the rules of natural justice and then;
- (b) only for such a period that is necessary to achieve fairness between the parties.

(4) On the date the award is made, the arbitrator will notify the parties that the award is completed, signed and dated, and that it will be issued to the parties on receipt of cleared funds for the arbitrator's fees and expenses.

Costs

6.—(1) The costs of the arbitration must include the fees and expenses of the arbitrator, the reasonable fees and expenses of any experts and the reasonable legal and other costs incurred by the parties for the arbitration.

(2) Where the difference involves connected/interrelated issues, the arbitrator will consider the relevant costs collectively.

(3) The final award must fix the costs of the arbitration and decide which of the parties are to bear them or in what proportion they are to be borne by the parties.

(4) The arbitrator will award recoverable costs on the general principle that each party should bear its own costs, having regard to all material circumstances, including such matters as exaggerated claims and/or defences, the degree of success for different elements of the claims, claims that have incurred substantial costs, the conduct of the parties and the degree of success of a party.

Confidentiality

7.—(1) The parties agree that any hearings in this arbitration are to take place in private.

(2) The parties and arbitrator agree that any matters, materials, documents, awards, expert reports and the like are confidential and must not be disclosed to any third party without prior written consent of the other party, save for any application to the Courts or where disclosure is required under any legislative or regulatory requirement.

SCHEDULE 10

Article 2

ENVIRONMENTAL STATEMENT SUPPLEMENTS

<i>Document Title</i>	<i>Date</i>	<i>Examination Reference</i>	<i>Library</i>
Climate Change Chapter Clarification Note	June 2019	REP2-043	
Clarification Note by the Applicant on Glint / Glare Analysis	August 2019	REP3-022	
Missing ALC Records	August 2019	REP4-034	
Clarification Note on Development Description Chapter	July 2019	AS-028 (Appendix E)	
Clarification Note - Removal of Northern Access Route Option	November 2019	AS-048	

EXPLANATORY NOTE

(This note is not part of the Order)

This Order grants development consent for, and authorises the construction, operation and maintenance of a solar generating station and energy storage facility on land on the north Kent coast approximately 2 km north east of Faversham and 5 km west of Whitstable together with associated development. This Order imposes requirements in connection with the development and authorises the compulsory purchase of land (including rights in land) and the right to use land and to override easements and other rights.

This Order also grants a deemed marine licence under Part 4 of the Marine and Coastal Access Act 2009 in connection with the solar park. The marine licence imposes conditions in connection with the deposits and works for which they grant consent.

A copy of the plans and book of reference referred to in this Order and certified in accordance with article 34 (certification of plans and documents, etc.) may be inspected free of charge on the website of the Planning Inspectorate (only during periods where restrictions on movement are in place under the Health Protection (Coronavirus, Restrictions) (England) Regulations 2020 (SI 350)) or at the offices of Cleve Hill Solar Park Ltd at Woodington House Woodington Road, East Wellow, Romsey, Hampshire, SO51 6DQ.



CLEVE HILL SOLAR PARK

ENVIRONMENTAL STATEMENT

VOLUME 1 - CHAPTERS

CHAPTER 5 - DEVELOPMENT DESCRIPTION

November 2018
Revision A

Document Reference: 6.1.5
APFP Regulation: 5(2)(a)

www.clevehillsolar.com



CLEVE HILL
SOLAR PARK

5 DEVELOPMENT DESCRIPTION

5.1 Introduction

1. This chapter of the ES describes the Development. It provides a description of the existing Development site and the physical characteristics of the Development for the purpose of identifying and assessing the likely significant environmental effects resulting from the Development, more detail on which is provided in the other ES chapters. It also describes the proposed programme of site preparation, construction and decommissioning works for the Development and the key activities that would be undertaken during the works to inform the prediction of likely significant environmental effects set out in the technical chapters.
2. This chapter is supported by the following figures provided in Volume 2:
 - Figure 5.1 Existing Site Areas;
 - Figure 5.2 Development Site Layout - Overview;
 - Figure 5.2a to d Development Site Layout - Detail;
 - Figure 5.3 Flood Depths by Field;
 - Figure 5.4a Solar PV Module Mounting Structure Elevation;
 - Figure 5.4b Solar PV Module Mounting Structure Plan;
 - Figure 5.5 Transformer elevations;
 - Figure 5.6a to c Electrical Compound (Battery Pack);
 - Figure 5.7a to c Electrical Compound (Containerised);
 - Figure 5.8 Flood Protection Bund;
 - Figure 5.9 400 kV Cable Connection;
 - Figure 5.10 Site Access Options;
 - Figure 5.11 Site Access Construction Detail; and
 - Figure 5.12 Culvert Detail.
3. This chapter is also supported by the following technical appendices provided in Volume 4:
 - Technical Appendix A5.1 Field Data;
 - Technical Appendix A5.2 Outline Landscape and Biodiversity Management Plan;
 - Technical Appendix A5.3 Microclimate and Vegetation Desk-Based Study;
 - Technical Appendix A5.4 Outline Construction Environmental Management Plan; and
 - Technical Appendix A5.5 Outline Decommissioning and Restoration Plan.
4. This chapter should be read in conjunction with the Outline Design Principles document which accompanies the DCO Application (DCO Document Reference 7.1).

5.2 Existing Development Site Description

5.2.1 *Site Context*

5. The Development site lies within the administrative districts of Swale Borough Council, Canterbury City Council and Kent County Council, 2 km north east of Faversham and 5 km west of Whitstable on the north Kent coast as shown on Figure 1.1. The Development site is coastal and the area is identified on Ordnance Survey maps as Nagden, Cleve and Graveney Marshes. The coastal nature of the Development site is in evidence where Faversham Creek forms the western site boundary and The Swale Channel forms the northern boundary.

5.2.2 Existing Development Site

6. The total area of the Development site is approximately 491.2 hectares (ha) and can be divided into four existing broad land use types:
 - Arable Land;
 - Freshwater Grazing Marsh;
 - Flood Defences; and
 - The Existing Cleve Hill Substation.
7. These areas are shown on Figure 5.1 and described in the following sections.

5.2.2.1 Arable Land

8. Arable land covers a total area of approximately 387.6 ha within the Development site as shown in Figure 5.1. Large fields are separated by drainage channels predominantly running south to north and a 400 kilovolt (kV) overhead line which traverses the Development site from west to east where it joins the existing Cleve Hill Substation. An 11 kV overhead line crosses the south of the Development site from Nagden in a straight-line westward towards Cleve Farm with a short spur south to Warm House.
9. Underground cables connecting London Array Offshore Wind Farm to the existing Cleve Hill Substation cross the arable land from north to south, from the flood defences to the existing Cleve Hill Substation.
10. Topographically, the majority of the arable land is flat and low lying with elevations above ordnance datum (AOD) typically ranging from 0 m to 3 m. The exception is the south east of the Development site where the land rises at a variable gradient of approximately 14% from south west to north east at Graveney Hill, reaching an elevation of approximately 15 m AOD.

Plate 5.1 Arable land



5.2.2.2 Freshwater Grazing Marsh

11. The area of freshwater grazing marsh shown on Figure 5.1 comprises approximately 35.1 ha of land in the east of the Development site, between the arable land to the west, Seasalter Road to the east and the existing coastal flood defences to the north. Similar to the arable land, the land is flat and low lying but with generally smaller fields also separated by drainage ditches.
12. This area of freshwater grazing marsh forms part of The Swale Special Protection Area, Site of Special Scientific Interest and Ramsar wetland designated sites.

Plate 5.2 Freshwater grazing marsh

5.2.2.3 Flood Defences

13. The land identified on Figure 5.1 as flood defences comprises the existing coastal flood defences that protect the Development site and the access to the flood defences from Seasalter Road at National Grid Reference (NGR) TR 06050 64418. The majority of the flood defences are within The Swale SSSI, SPA and Ramsar wetland designated site.
14. The flood defences vary in construction across their length from a lightly vegetated earth flood prevention embankment, to a concrete blockwork embankment with intermittent rock armour toe protection supporting a recurved concrete parapet wall intermittently fronted with intertidal vegetation and groynes.
15. The seaward side of the flood defences typically includes areas of shingle beach and saltmarsh leading to mudflats seaward of Mean High Water Springs (MHWS).
16. The landward side of the flood defences typically includes a strip of at least 50 m of freshwater grazing marsh between the crest of the flood defences and the edge of the arable land except in the southwest of the Development site where arable land abuts the flood defences.
17. A raised flood defence structure with a public right of way running along its crest forms the eastern Development site boundary, running parallel with and adjacent to Seasalter Road.
18. The area shown as flood defences in Figure 5.1 comprises an area of approximately 58.5 ha.

Plate 5.3 Flood Defences

5.2.2.4 Existing Cleve Hill Substation

19. The existing Cleve Hill Substation serves the London Array Offshore Wind Farm and includes the following infrastructure:
 - Tarmacadam access road;
 - London Array Offshore Wind Farm substation;
 - Underground cables from London Array Offshore Wind Farm to the substation;

- National Grid Electricity Transmission (NGET) substation;
 - 400 kV overhead lines which connect into the NGET substation via two gantries; and
 - Landscaped grounds including fences, hedges, ponds and grassed areas.
20. The existing Cleve Hill Substation area as shown in Figure 5.1 comprises an area of approximately 10.0 ha within the Development site.

Plate 5.4 Aerial Photo of the existing Cleve Hill Substation¹



5.3 The Rochdale Envelope

21. Due to the rapid pace of technological development in the solar photovoltaic (PV) and energy storage industry, it is necessary to provide flexibility in the Development Description chapter of this ES and the DCO, to allow for the most up to date technology possible to be utilised by the Development at the time of construction. In some cases, the Development could utilise technology which does not currently exist.
22. To address this, a Rochdale Envelope approach is used. The principles and justification for this approach are set out in section 2.1.1 of Chapter 2: EIA of this ES.
23. In order to establish parameters within the Rochdale Envelope for assessment, the Development Description chapter follows a two-tier approach by establishing:
- Rochdale Envelope design principles; and
 - Candidate design - realistic worst-case design parameters within the Rochdale Envelope.
24. The design principles set out in the Outline Design Principles document (DCO Document Reference 7.1) form the Rochdale Envelope limits within which the Development can be built and operated.
25. The design principles are broad, allowing for flexibility in the Development design. Therefore, a set of realistic worst-case design parameters has also been developed as a candidate design which in all cases falls within the bounds of the design principles but is more specific to allow for robust assessment of likely significant effects to be undertaken within this ES.
26. An example of this is the angle of slope of the solar PV modules. The maximum height of the solar PV modules is the limiting design principle, but for the purposes of assessment, a parameter for the angle of slope is also required *e.g.*, to inform the three-dimensional model used to produce the photomontage visualisations. The height of the solar PV modules is partly governed by the angle of slope. This means that

¹ Image Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN and the GIS User Community.

although the angle of slope is not fixed, future adjustments to it are limited by the maximum height design principle.

27. The candidate design realistic worst-case design parameters do not always represent the maximum, as where maximum parameters can be set, these are established as design principles in the Outline Design Principles document (DCO Document Reference 7.1). For example, the number of solar PV modules is an indicative number rather than a maximum number as the maximum design principle parameter relates to the area of coverage of solar PV modules rather than the total number. This is appropriate because the size of an individual module and number of them **doesn't** have the potential to change the likely significant effects of the Development, whereas the maximum total area of all solar PV modules does. Over time, as technology advances, it is quite possible that modules could, say, reduce in size, meaning that more are required to cover the same area as currently predicted for the candidate design. However, it is the total area of module coverage that is relevant to LVIA and not the number of modules needed to achieve that, hence it is the area of coverage that is the relevant parameter for assessment.
28. Where alternative realistic worst-case scenarios are presented in the candidate design (*e.g.*, the alternative designs for the energy storage facility and the two alternative access routes), each technical assessor has determined which elements and construction methods represent the realistic worst-case in the context of their assessment. This is set out in each technical chapter **and referred to as the 'Candidate Design'** and the assessment of environmental effects is then based on that determination.
29. Following this approach will ensure that the findings of this ES will apply to the final design of the Development as-built and the effects will be no worse than predicted.

5.3.1 Defining the Detailed Design

30. Following consent and final detailed design, a final build plan will be submitted to Swale Borough Council for approval. The purpose of this submission will be to:
- Demonstrate compliance with the requirements included in the DCO; and
 - Demonstrate that the final as-built design remains within the parameters of the Design Principles and therefore the Rochdale Envelope considered by this ES.

5.4 Development Description and Candidate Design

5.4.1 Solar Photovoltaic Arrays

Table 5.1 Solar PV Arrays Design Parameters

Solar PV Modules Candidate Design		Applicable Design Principle
Indicative Number of Solar PV Modules	884,388 See Technical Appendix A5.1, Field Data, for number of solar PV modules in each field.	The total area of solar PV modules in each field will not exceed the solar PV module areas set out in Technical Appendix A5.1 and a total area of 176.3399 ha.
Indicative Solar PV module capacity watt peak (Wp)	395	N/A
Indicative Solar PV Module Dimensions	Width (mm)	992
	Length (mm)	2010
	Depth (mm)	40

Solar PV Modules Candidate Design			Applicable Design Principle
	Area (m ²)	1.994	
Indicative Slope of Solar PV Modules from Horizontal	8 degrees		N/A
Minimum height of flood sensitive equipment above ground level (AGL)	1.2 m See Technical Appendix A5.1, Field Data, for the lowest heights in each field.		The minimum height of the lowest part of the solar PV modules will be 1.2 m AGL.
Maximum height of solar PV modules AGL	3.9 m See Technical Appendix A5.1, Field Data, for maximum heights in each field		The maximum height of highest part of the solar PV modules will be 3.9 m above ground level (AGL).
Indicative Solar PV Module Colour	Dark Blue (visualisations show RGB 37,61,109)		The solar PV modules will be dark blue, grey or black in colour.
Frame type	Anodized Aluminium Alloy		N/A
Indicative Number of Pyranometers	15		N/A
Solar PV Module Mounting Structures			
Indicative Table Width (incl. Ridge Break)	Width (east to west) (m)	24.3	The maximum height of highest part of the solar PV modules will be 3.9 m above ground level (AGL).
			The minimum height of the lowest part of the solar PV modules will be 1.2 m AGL.
Minimum Width of Ridge Break (mm)	300		The minimum separation at the central ridge of the array tables will be 300 mm.
Minimum East/West Distance Between Tables (no transformers)	2.5 m		The minimum east-west separation between the external parameters of array tables will be 2.5 m.
Indicative East/West Distance Between Tables (Transformer Rows)	10 m		N/A
Indicative Mounting Structure Material	Galvanised steel		N/A
Indicative Foundation Type	Driven-piles		N/A
Indicative Total number of piles	196,539 See Technical Appendix A5.1, Field Data, for number of piles per field		The total area of solar PV modules in each field will not exceed the solar PV module areas set out in Technical Appendix A5.1 and a total area of 176.3399 ha.
Depth of piles below ground level (m)	1 to 2		N/A
Inverters			
Indicative Number of	3,071		The total area of solar PV modules

Solar PV Modules Candidate Design			Applicable Design Principle
String Inverters			in each field will not exceed the solar PV module areas set out in Technical Appendix A5.1 and a total area of 176.3399 ha.
Indicative Inverter Dimensions	Height (mm)	1,075	String inverters will be used which will be mounted beneath the solar PV modules on the solar PV module mounting structures.
	Width (mm)	605	
	Depth (mm)	310	
Transformer			
Indicative Number of Transformers	80		The total area of solar PV modules in each field will not exceed the solar PV module areas set out in Technical Appendix A5.1 and a total area of 176.3399 ha.
Indicative Power Rating (MVA)	2.5 to 5		N/A
Indicative Transformer Dimensions	Length (mm)	8,200	The transformers will not exceed the maximum height AGL of the solar PV modules in the same solar PV array field as set out in Technical Appendix A5.1 (except during a flood event for floating transformers).
	Width (mm)	2,300	
	Height (mm)	3,000	
Indicative Transformer Foundation Dimensions (below ground level)	Length (mm)	10,700	N/A
	Width (mm)	5,100	
	Height (mm)	2,300	
Maximum ascent of platform base in flood scenario (m)	2.1		N/A
Indicative Transformer Colour	Grey (visualisations show RGB 128,128,128)		N/A
Electrical Cabling			
DC Cables from Solar PV Modules to Inverters and Combiners	Above ground, in racking secured to solar PV mounting structure.		All cable circuits within the solar PV array fields will be secured to the solar PV module mounting structures or will be underground. No new overhead lines will be constructed.
AC Cables from Inverters and Combiners to Transformers	Above ground, secured to solar PV mounting structure, and underground.		
AC Cables from Transformers to Development Substation	Underground		

5.4.1.1 Solar PV Array Fields

31. The large arable fields within the Development site have been sub-divided using existing physical features such as ditches and overhead powerlines into developable areas referred to as fields and labelled alphabetically, as shown in Figures 5.2 a to d.

- The extent of these fields has been determined through consultation and application of constraints, such as minimum separation to ditches and required separations from existing overhead line towers (as set out in Chapter 17: Miscellaneous Issues of this ES).
32. The design changes described in Chapter 4 have resulted in 23 of the original 26 fields being used in the final design for development of solar PV arrays including fields labelled A to I and K to X (*i.e.*, fields J, Y and Z are no longer proposed to be developed as part of the solar PV array).
 33. All of these fields are located within the arable land area described in section 5.2.2.1 and shown in Figure 5.1. None of the Development infrastructure described in this section (section 5.4.1) will be located on the freshwater grazing marsh, flood defences, or on existing Cleve Hill Substation land.
 34. The minimum height of electrical equipment or connections across the solar PV array fields has been derived from flood modelling. The 1 in 1,000 year defended wave overtopping event in the year 2070 has been used to derive a maximum flood depth above ground level (AGL) in each field. Water-sensitive electrical equipment and connections will be placed above this height (plus 300 mm freeboard²) or above at least 1.2 m in each field. These heights are shown for each field in Figure 5.3 and in Technical Appendix A5.1, Field Data. This approach has been taken to reduce the risk of inundation of sensitive equipment as far as practicable should a catastrophic flood event, involving a major overtopping of the coastal flood defences occur during the **Development's operational lifetime**.
 35. The 11 kV overhead powerline that resulted in the earlier subdivision of fields in the south of the Development site is proposed to be undergrounded (see ES Chapter 17: Miscellaneous Issues). However, the original field subdivisions formed by the overhead line have been broadly maintained to derive flood heights.
 36. The design principles set out in the Outline Design Principles document (DCO Document Reference 7.1) limit the location and size of the solar PV arrays such that the candidate design parameters set out in Table 5.1 represent a realistic worst case design.
- 5.4.1.2 Solar PV Modules (Solar Panels)*
37. Solar PV modules convert solar irradiance (light) into direct current (DC) electricity. **They are designed to maximise the absorbency of the sun's rays and minimise solar glare.** As a consequence, they are dark in hue and recessive in the landscape.
 38. The individual solar PV modules within the Development will consist of dark blue, dark grey or black photovoltaic (PV) cells. A range of alternative PV technologies are developing rapidly and may be available at the time of construction therefore the solar PV modules are not limited to a particular type of PV cell.
 39. Solar PV modules can be housed within an anodised aluminium frame or can be frameless. Solar PV modules will be fixed to mounting structures (section 5.4.1.3) using clamps and are connected together in strings which connect to the inverters (section 5.4.1.4) and combiners (if required).
 40. Pyranometers will be located across the solar PV arrays to accurately measure solar irradiance and other weather conditions, to collect data to ensure the solar PV modules are performing as expected. It is expected there will be 10 to 15 pyranometers across the site, typically near the centre of the fields of solar PV modules.
 41. The design principles in the Outline Design Principles document (DCO Document Reference 7.1) limit the location of solar PV modules to the fields described in section 5.4.1.1, but do not limit the scale or design of the individual solar PV modules in order

² Freeboard is an allowance applied to flood levels to account for residual uncertainty in flood modelling.

to maintain flexibility in that aspect of the Development design. However, the design principles set out a maximum surface area of all of the solar PV modules within each field. The realistic worst-case parameters reflect this in that the design shown in Figure 5.2 and set out in Technical Appendix A5.1, Field Data, represents the maximum surface area of solar PV modules within each field. This could result in an as built design made up of a greater number of smaller solar PV modules, or a smaller number of larger solar PV modules without exceeding the limits of the Rochdale Envelope.

42. Table 5.1 shows indicative details of the solar PV modules which form the realistic worst-case design parameters.

Plate 5.5a Indicative solar PV module design

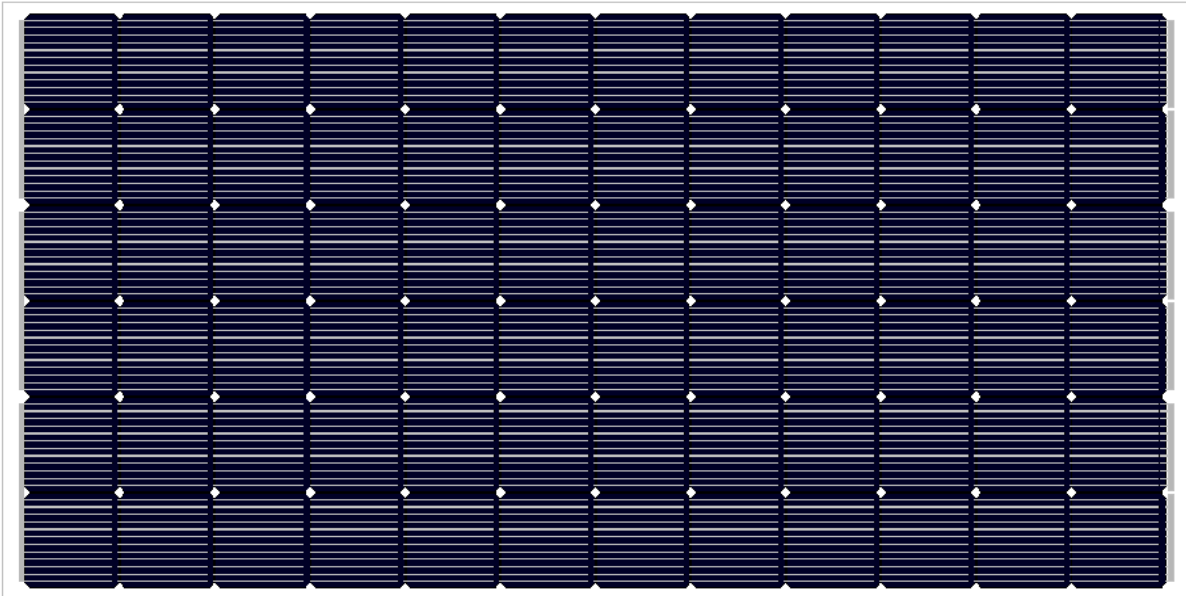


Plate 5.5b Typical pyranometer



Plate 5.5c Typical underside of solar PV modules



5.4.1.3 Solar PV Module Mounting Structures

43. The solar PV modules will be mounted on a metal (likely galvanised steel) rack supported by galvanised steel piles driven into the ground by an impact or vibratory piling rig to a depth³ of approximately 1.5 to 2 m. Typical mounting poles and an example east-west panel arrangement are shown in Plates 5.6a and b. The string inverters will also be mounted beneath the solar PV modules above the maximum identified flood height on the verticals of these structures.
44. Each east and west facing group of solar PV modules is referred to as a table, which includes the whole structure from the low point of the solar PV modules on one side to the ridge in the middle of the table and on to the low point on the other side.
45. Each half-table in the candidate design consists of 6 solar PV modules (in portrait) from east to west, so 12 modules from east to west across the full width of each table, and an unspecified number of solar PV modules long (in landscape) north to south. In the candidate design, tables will be located continuously from north to south without substantial gaps between them. Half tables (east half or west half) will be utilised where transformers are located within the solar PV array.
46. Each table is supported above the ground by driven piles, the candidate design assumes a realistic worst case ratio of 1 pile per 4.5 solar PV modules. An indicative table elevation is shown in Figure 5.4.
47. The design principles in the Outline Design Principles document (DCO Document Reference 7.1) do not limit the arrangement of solar PV modules within a table (including whether they are portrait or landscape), the angle of slope or the design of the mounting structures. However the maximum height of the solar PV modules (3.9 m) and the minimum (1.2 m) height of flood sensitive equipment AGL are limited as well as the orientation of the slope of the solar PV modules towards the east and west and the colour of the solar PV modules. The separation between solar PV modules both at the ridge at the highest point in the middle of each table (minimum 300 mm), and between the lowest solar PV modules in adjacent tables (minimum 2.5 m) is also limited. The realistic worst-case design parameters set out in Table 5.1 have been

³ These depths are approximate and variable depending on localised ground conditions.

driven by the maxima in the design principles therefore representing the maximum coverage of solar PV modules placed at the greatest anticipated heights.

48. Technical Appendix A5.1, Field Data, provides more detail on the table characteristics across each field of the solar PV array.

Plate 5.6a Example PV module mounting structures (driven piles) during construction



Plate 5.6b Example east-west PV module mounting structure arrangement



5.4.1.4 Inverters

49. Inverters are required to convert the DC electricity generated by the PV modules into alternating current (AC) which allows the electricity to be exported to the National Grid. Inverters are sized to deal with the level of voltage which is output from the strings of solar PV modules.
50. String inverters will be utilised on the Development, *e.g.*, at a scale of one inverter for every 10 strings of approximately 27 solar PV modules (rather than fewer, larger, centralised inverters). String inverters are small enough to be mounted beneath the

solar PV modules on the verticals of the mounting structures (see example in Plate 5.7) and are therefore not shown on layout plans.

51. Figure 5.4 includes an indicative drawing of an inverter mounted on the structure.
52. Using the realistic worst-case number of the solar PV modules and the parameters set out in the previous paragraph results in a candidate number of 3,071 string inverters being required across the solar PV arrays.
53. Depending on the electrical design, combiners may also be required to rationalise cabling between the inverters and the transformers. If required, these would be similar in scale to the string inverters and also mounted on the support structure beneath the solar PV modules.
54. The design principles in the Outline Design Principles document (DCO Document Reference 7.1) limit the design of the inverters to the string type and the location to within the solar PV array fields, mounted to the solar PV mounting structures. The scale and design of the string inverters is not limited beyond these design principles as the inverters are inherently limited in scale through being secured to the mounting structure, and they are largely hidden from view beneath the solar PV modules within the solar PV array fields. The parameters set out in Table 5.1 therefore represent a realistic worst-case design for the inverters.

Plate 5.7 Example of string inverters mounted beneath solar PV modules

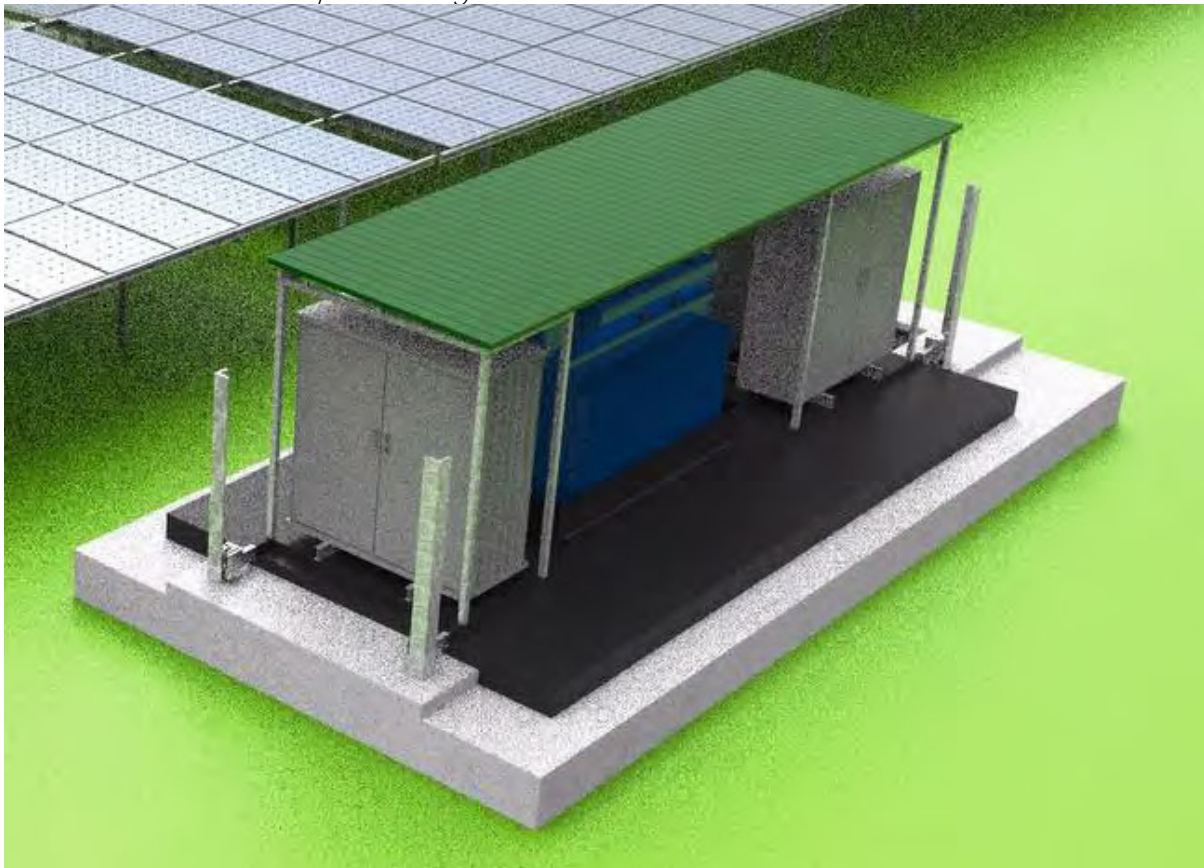


5.4.1.5 Transformers

55. Transformers are required to control and increase the voltage of the electricity generated across the solar PV arrays before it reaches the Development substation. Transformers will be located within the solar PV array fields, and are expected to be within the range 2.5 to 5 mega volt amps (MVA). Using the realistic worst-case parameters generated for the solar PV modules and inverters results in a candidate number of 80 transformers across all of the solar PV array fields as shown in Figure 5.2.
56. The variation in MVA capacity does not affect the dimensions of the transformers which are all anticipated to be the same approximate dimensions as the candidate design set out in Table 5.1.

57. The transformers will be of a design suitable to protect them against flooding either through resistance or resilience measures. The candidate design is a flood resistance solution; floating transformers. Each transformer station would be mounted on a floating platform housed within an underground tank. The cables entering and leaving the transformers would be coiled beneath the platform enabling it to rise and fall with flood waters. Four dolphins⁴ at each corner of the transformer station would control the ascent and descent of the platform with flood waters. This design solution is considered to represent a realistic worst-case scenario in that the excavation for the base of the transformer would be required to a greater depth than for a standard foundation solution and there remains a likely requirement for structural concrete to form the base. An example design for this solution is shown in Plate 5.8 and Figure 5.5 which shows an indicative transformer plan and elevation.
58. Although Plate 5.8 shows a green roof, typically transformers are coloured grey to blend in with solar PV modules and other infrastructure forming part of the solar PV arrays.
59. The design principles in the Outline Design Principles document (DCO Document Reference 7.1) limit the location of the transformers to within the solar PV array fields and the scale of the transformers to not exceed 3 m in height AGL (except during a flood event). The design of the transformers must also incorporate some flood resistance or resilience measures as a design principle. The candidate design parameters set out in Table 5.1 therefore represent a realistic worst-case design for the transformers.

Plate 5.8 Example floating transformer model



⁴ Vertical poles such as those used on tidal jetties to control the movement of a structure within a fixed location in relation to changes in water level.

5.4.1.6 *Electrical Cabling*

60. Onsite electrical cabling is required to connect the solar PV modules to the string inverters and combiners, and the string inverters and combiners to the transformers onsite. Higher rated cables are then required between the transformers and the Development substation within the electrical compound. The high voltage 400 kV connection to the National Grid is described in section 5.4.3.
61. DC cabling between solar PV modules and the string inverters will be above ground, fixed to the mounting structure.
62. All above ground cables will be routed through conduit and racking secured to the solar PV module mounting structures.
63. AC cables from the inverters to the transformers will be fixed to the solar PV module mounting structures before reaching ground level where they will be undergrounded or run in cable conduits above ground to reach the transformers.
64. AC cables between the transformers and the Development substation will be undergrounded.
65. Underground cables will be laid in trenches, typically of 0.5 to 1.1 m in depth and of varying width, depending on the number of cables and ground conditions. Cable trenches would generally run parallel to and between the tables and parallel and adjacent to or beneath the onsite spine road. Cable trenches may also carry earthing and communications cables and will be backfilled with fine sand and excavated materials to the original ground level. Where ditch crossings are required, the trenches will typically be located a minimum of 1 m below the bottom of the ditch and concrete markers will be placed on either side to clearly demarcate the location of the cable crossing.
66. Data cables will also be installed, typically alongside electrical cables in order to allow for the monitoring of data from the Development during operation, such as the collection of solar irradiance data from pyranometers. Cabling will also be required for power and data transfer associated with the CCTV system described in section 5.4.7.1.

5.4.1.7 *Landscaping*

67. Planting and management of grassland, hedgerows, trees and areas of scrub is proposed across the site for landscape, visual and biodiversity mitigation and enhancement. The landscaping proposals are described in detail in Technical Appendix A5.2: Landscape and Biodiversity Management Plan.
68. Technical Appendix A5.3: Microclimate and Vegetation Desk Study contains a desk-based study into the likely microclimate and vegetation responses to the design of solar PV mounting structures proposed. This study has been used to inform the Landscape and Biodiversity Management Plan.

5.4.1.8 *Earthworks*

69. Earthworks onsite (*e.g.*, transformer foundation excavations) may result in small surplus of material in areas of the Development site. This material will be reused in landscaping and restoration of the Development site during and after construction. If there remains a surplus post construction, small mounds of site won material of up to 3 m in height may be formed in vacant areas of the Development site to provide a range of habitats for certain species, to be agreed with habitat management consultees in advance, through implementation of Technical Appendix A5.2: Landscape and Biodiversity Management Plan.

5.4.2 Electrical Compound

Table 5.2a Electrical Compound Candidate Design Parameters

Flood Protection Bund Candidate Design		Applicable Design Principle
Bund height (m above ordnance datum)	5.316	The crest of the flood protection bund will be located at a height above ordnance datum (AOD) of 5.316 m to protect against the modelled 1 in 1,000 year flood event including a simulated breach of the existing coastal flood defences (the flood modelling is provided in ES Technical Appendix A10.1 (DCO Document Reference 6.4.10.1) and summarised in ES Chapter 10: Hydrology, Hydrogeology, Flood Risk and Ground Conditions) (DCO Document Reference 6.1.10).
Bund Width (m)	Varies - approximately 35	N/A
Bund Materials	Predominantly site won clay and topsoil	As much site won material from within the electrical compound area will be used to construct the bund as is reasonably practicable.
Bund Construction	Impervious foundation (likely imported) Core trench (suitable site won material) Impermeable core (suitable site won material) Topsoil (suitable site won material)	
Estimated volume of material required to create bund	75,000 m ³	
Estimated volume of material expected to be won onsite	63,750 m ³	
Estimated volume of material expected to be imported to form bund	11,250 m ³	

Table 5.2b Electrical Compound Candidate Design Parameters

Energy Storage Facility Candidate Design		Battery Pack Solution	Containerised Solution	Applicable Design Principle
Battery Pack Cabinets / Containers	Number of Cabinets	7,440	300	The energy storage facility will be located within the area marked as Work No. 2 & 3 on the Works Plan (DCO Document Reference: 2.2).
	Approximate total energy storage capacity	700 MWh	630 MWh	
	Cell Type	Lithium-ion	Lithium-ion	
	HVAC - Heating / Cooling System	Closed loop liquid	Climate Control -	

Energy Storage Facility Candidate Design		Battery Pack Solution	Containerised Solution	Applicable Design Principle	
		thermal management	Chilled Water / Direct Expansion / Evaporator		
	Dimensions	Length (mm)	1,308		12,200
		Width (mm)	822		2,438
		Height (mm)	2,185	2,890	The components of the energy storage facility will not be higher than the top of the flood protection bund.
	Foundation Type		Concrete Pad	Concrete sleepers	N/A
Inverters	Number of Inverters		744	90	N/A
	Cooling System		Closed loop liquid thermal management with radiator and fans	Climate Control - Chilled Water / Direct Expansion / Evaporator	
	Dimensions	Length (mm)	1,014	12,200	
		Width (mm)	1,254	2,438	
		Height (mm)	2,192	12,200	The components of the energy storage facility will not be higher than the top of the flood protection bund.
Foundation Type		Concrete Pad	Concrete sleepers	N/A	
Controllers	Number of Controllers		744	N/A. The controllers are sited within the containers in the containerised solution.	N/A
	Dimensions	Length (mm)	229		
		Width (mm)	453		
		Height (mm)	499	The components of the energy storage facility will not be higher than the top of the flood protection bund.	
	Foundation Type		Concrete pad / Rack		N/A

Energy Storage Facility Candidate Design		Battery Pack Solution	Containerised Solution	Applicable Design Principle	
		Mounted			
33 kV / 415 V Transformers	Number of Transformers	124	130	N/A	
	Dimensions	Length (mm)	4400		4400
		Width (mm)	4100		4100
		Height (mm)	2245	2245	The components of the energy storage facility will not be higher than the top of the flood protection bund.
Foundation Type		Concrete pad	Concrete pad	N/A	

Table 5.2c Electrical Compound Candidate Design Parameters

Development Substation Candidate Design			Applicable Design Principle	
33 kV Equipment				
33 kV Zig Zag Transformer	Number	2		The Development substation will be located within the area marked as Work No. 2 & 3 on the Works Plan (DCO Document Reference: 2.2).
	Dimensions	Length (mm)	3700	
		Width (mm)	1100	
		Height (mm)	8850	The components of the Development substation will be a maximum of 12.8 m in height AGL.
33 kV Busbar Post	Number	6		N/A
	Dimensions	Length (mm)	1000	
		Width (mm)	1000	
		Height (mm)	8850	The components of the Development substation will be a maximum of 12.8 m in height AGL.
Transformer Plinth and Bund	Number	1		N/A
	Dimensions	Length (mm)	25300	
		Width (mm)	15075	
		Height (mm)	N/A	
400 kV Equipment				
Main Transformer, including radiators, fans, conservator and bushings	Number	1		The components of the Development substation will be a maximum of 12.8 m in height AGL.
	Dimensions	Length (mm)	14700	
		Width (mm)	7900	
		Height (mm)	11085	

Development Substation Candidate Design			Applicable Design Principle
Transformer Spare Phase	Number	1	
	Dimensions	Length (mm)	3500
		Width (mm)	3000
		Height (mm)	4800
Post Insulators	Number	9	
	Dimensions	Length (mm)	1000
		Width (mm)	1000
		Height (mm)	7800
Tall Post Insulators	Number	24	
	Dimensions	Length (mm)	1000
		Width (mm)	1000
		Height (mm)	12800
Busbars, per m	Number	1,137	
	Dimensions	Length (mm)	1
		Width (mm)	350
		Height (mm)	350
Isolating and Earthing Switch	Number	24	
	Dimensions	Length (mm)	5000
		Width (mm)	500
		Height (mm)	7800
AIS Circuit Breaker	Number	12	
	Dimensions	Length (mm)	5000
		Width (mm)	600
		Height (mm)	7800
Cable sealing end	Number	6	
	Dimensions	Length (mm)	1500
		Width (mm)	1500
		Height (mm)	7800
CT	Number	9	
	Dimensions	Length (mm)	1200
		Width (mm)	1200
		Height (mm)	8600
Pantograph disconnecter	Number	6	
	Dimensions	Length (mm)	1000
		Width (mm)	1000
		Height (mm)	12800
STATCOM / Reactive Compensation			
Building	Number	4	

Development Substation Candidate Design				Applicable Design Principle
	Dimensions	Length (mm)	12300	
		Width (mm)	10300	
		Height (mm)	3000	
Reactor	Number	18		
	Dimensions	Length (mm)	2500	
		Width (mm)	2500	
		Height (mm)	8000	
Capacitor Rack	Number	6		
	Dimensions	Length (mm)	2000	
		Width (mm)	2000	
		Height (mm)	7500	
Post Insulator	Number	12		
	Dimensions	Length (mm)	1000	
		Width (mm)	1000	
		Height (mm)	7800	
Tall Post Insulator	Number	6		
	Dimensions	Length (mm)	1000	
		Width (mm)	1000	
		Height (mm)	12800	
Pantograph Disconnecter	Number	12		
	Dimensions	Length (mm)	1000	
		Width (mm)	1000	
		Height (mm)	12800	
Cable sealing end	Number	6		
	Dimensions	Length (mm)	1500	
		Width (mm)	1500	
		Height (mm)	7800	
Harmonic Filter				
Capacitor Rack	Number	18		
	Dimensions	Length (mm)	2000	
		Width (mm)	2000	
		Height (mm)	7500	
Reactor	Number	18		
	Dimensions	Length (mm)	2000	
		Width (mm)	2000	
		Height (mm)	8000	
CT	Number	12		
	Dimensions	Length (mm)	1200	

Development Substation Candidate Design				Applicable Design Principle
		Width (mm)	1200	
		Height (mm)	8600	
Resistor	Number	6		
	Dimensions	Length (mm)	3500	
		Width (mm)	2000	
Height (mm)		6500		
Surge Arrestor	Number	6		
	Dimensions	Length (mm)	1650	
		Width (mm)	1650	
Height (mm)		7800		
Cable sealing end	Number	6		
	Dimensions	Length (mm)	1500	
		Width (mm)	1500	
Height (mm)		7800		
Deluge System				
Pumphouse	Number	1		
	Dimensions	Length (mm)	9164	
		Width (mm)	2538	
Height (mm)		2691		
Tank	Number	1		
	Dimensions	Length (mm)	8000	
		Width (mm)	8000	
Height (mm)		3000		
Site Office, Storage and Welfare and Diesel Gensets				
Site Office, Storage and Welfare Building	Number	1		
	Dimensions	Length (mm)	20200	
		Width (mm)	19300	
Height (mm)		4770		
Diesel Genset	Number	3		
	Dimensions	Length (mm)	3100	
		Width (mm)	1200	
Height (mm)		1630		

70. Indicative plans, elevations and isometric drawings of the electrical compound are shown in Figures 5.6a to c and 5.7a to c. The electrical compound will comprise a flood protection bund, the Development substation and either an energy storage facility or an extension of the solar PV arrays. Should the energy storage facility be not, or only partially (compared to the candidate design), built, and/or should the substation be smaller than the candidate design, the overall electrical compound may be reduced in size. Should this occur, its eastern boundary will remain as shown on Figure 5.2, while its western and northern boundaries will be relocated further south east. The space left

by the relocation of these boundaries will be available for use by solar PV modules, as set out in section 5.4.2.4. This is reflected in Schedule 1 of the DCO and explains why the area of land in question may comprise energy storage or solar PV modules.

71. The candidate design is for the electrical compound to be built in full, as shown in Figure 5.2, and for it to contain one of the two candidate scenario energy storage solutions set out in Table 5.2b.
72. A steel palisade security fence will encircle the electrical compound within the bund at ground level.
73. The electrical compound, as shown on Figure 5.2, is located on land including an existing drainage ditch. This ditch will be filled in and replaced by a new drainage ditch that will be created along the length of the northern boundary of the electrical compound.
74. The electrical compound will contain a permeable road surface with an underdrain that flows to this new drainage ditch via a non-return valve (at the north end of the compound). The new into an existing drainage ditch draining north.
75. The short section of new ditch left at the southern end of the electrical compound will be diverted into the existing drainage ditch that runs along the northern boundary of the existing Cleve Hill Substation.

5.4.2.1 Flood Protection Bund

76. In order to protect the critical infrastructure within the electrical compound in the event of a breach of the coastal flood defences, a flood protection bund consisting of a vegetated earth bund with an impermeable core will be constructed which will encircle the electrical compound. The bund is expected to be formed predominantly of site won material, in particular clays, to form the core of the bund, and topsoil to provide a planting medium for the landscaping planting described in Technical Appendix A5.2. The crest of the bund which will be formed at approximately 5.316 m AOD, which is the worst case modelled flood level (including 300 mm freeboard) during a 1 in 1,000 year defended breach event in the year 2070 (*i.e.*, including for projections of sea level rise due to climate change). The existing ground level beneath the location of the bund is typically between 1 and 1.5 m AOD, therefore the bund height AGL will likely vary between approximately 3.8 and 4.3 m AGL.
77. Access into the electrical compound will be taken over the bund as shown in Figure 5.2.
78. Figure 5.8 shows a typical cross section of the flood protection bund.

5.4.2.2 Energy Storage Facility

79. Energy storage facilities currently utilise a range of technologies and built forms such as **external 'battery packs'**, batteries housed within shipping containers or within larger bespoke buildings, and this range may expand to include new technologies and solutions in the future. Two example scenarios are included in the candidate design parameters to ensure that the operational scheme can provide the necessary electricity management services to the National Grid and will be commercially viable:
 - Battery pack solution; and
 - Containerised solution.
80. Neither of the scenarios presented would exceed the design principles in the Outline Design Principles document (DCO Document Reference 7.1).

Battery Pack Solution

81. The battery pack solution comprises an approximately 700 megawatt hour (MWh) battery array which would be located within the electrical compound. This battery

array has been designed using a modular, fully integrated, AC-coupled industrial energy storage system⁵ which consists of three types of enclosure:

- Rechargeable lithium-ion battery pack cabinets;
- Inverter; and
- System controller.

82. Transformers are also required to step up the low voltage from each group of 60 battery cabinets to high voltage and supply it to the Development substation. These transformers are likely to have similar characteristics to the transformers within the solar PV arrays (although as they will be protected by the flood protection bund, they will not be required to float).

83. Typically, powerpacks are white in colour as shown in Plate 5.9.

Plate 5.9 Example Battery Storage Powerpack Arrangement⁶



84. The battery pack solution would require concrete pad style foundations.

85. An indicative layout for the battery pack solution is shown in Figures 5.7a to c.

Containerised Solution

86. The containerised solution comprises the same types of equipment as the battery pack solution but typically **the batteries and the inverters are located within 'shipping container'** type units. The containers shown on the indicative layout shown in Figures 5.7a to c are approximately 12 m in length and would be mounted on concrete sleeper supports.

87. Transformers are also shown on Figure 5.8a to c and are the same indicative dimensions as those presented for the battery pack solution.

5.4.2.3 Development Substation

88. The Development substation will consist of electrical infrastructure such as the transformers, switchgear and metering equipment required to facilitate the export of electricity from the Development to the National Grid.

89. The candidate design includes the following plant and equipment:

- 33 kV equipment;
- 400 kV equipment;
- STATCOM / reactive compensation yard;
- Harmonic Filter;
- Deluge System;
- Site office, storage and welfare building; and
- Diesel Gensets.

⁵ Powerpack 2 System Site Design Manual, Tesla (2017)

⁶ Powerpack 2 System Site Design Manual, Tesla (2017)

90. Welfare facilities would be provided in the site office, storage and welfare building. This would include telecommunication links, a connection to the public mains water supply and the local electricity distribution network, and either a connection to the foul sewer or a cess tank that would be periodically emptied and taken off site by a licensed operator.
91. The colour of the plant within the Development substation is yet to be determined, but typically substation equipment is bare metal or grey in colour. The applicable design principle is for the equipment and buildings to fit with other local infrastructure, such as the existing Cleve Hill Substation.

5.4.2.4 Extension to the Solar Park

92. As set out in section 5.3 of this chapter, the rapid pace of development in the energy storage sector necessitates that alternative scenarios are accounted for in the Development design. One of these scenarios is that the Development could be built without the energy storage facility, or comprising a smaller energy storage facility. If this were the case, the Applicant would wish to preserve the ability to maximise the capacity of the solar PV arrays by utilising the area vacated within the electrical compound area shown on Figure 5.2 to add additional solar PV modules to the Development and increase the electrical generation capacity.
93. If this were undertaken the design principles set out in the Outline Design Principles document (DCO Document Reference 7.1) would apply to the extension in order to ensure that the extension would appear as an integral part of the solar PV array design.
94. For all technical assessments, the realistic worst case is that the electrical compound is developed to its maximum extents, as set out above therefore the extension to the solar park is not assessed separately in this ES.

5.4.3 Grid Connection to the National Grid

Table 5.3 Grid Connection to the National Grid Candidate Design Parameters

Grid Connection to the National Grid		Applicable Design Principles
Indicative number of 400 kV circuits	1	N/A
Conducting cores forming the 400 kV circuit	3	N/A
Number of trenches	1	The cable between the electrical compound and the existing Cleve Hill Substation will be underground.
Approximate trench depth (m)	1.4	
Approximate trench width (m)	1.3	
Approximate length of cable system between edge of electrical compound and NGET substation building (m)	200	N/A

95. The electricity generated by the Development will be exported via an underground high voltage 400 kV cable system between the Development substation and the NGET substation located within the existing Cleve Hill Substation at NGR TR 04911 63997.
96. The 400 kV cable system will allow electricity to be exported and imported from the Development to facilitate the charging of the energy storage facility. The cable system is expected to comprise a single 400 kV circuit with 3 conducting cores placed in a single trench. Either ducting would be utilised or the cables would be directly buried.
97. The cable route is expected to run south from the Development substation into the existing Cleve Hill Substation compound passing between the drainage pond at NGR TR

04837 64008 and the western boundary of the NGET compound, within the area shown on Figure 5.2. The minimum distance between the NGET compound wall and the pond is 20 m and the cable will pass between the two. It is likely that the route will continue to the south side of the NGET compound before entering the compound itself and entering the NGET substation.

- 98. An indicative design for the 400 kV cable system trench is shown on Figure 5.10.
- 99. The NGET substation within the existing Cleve Hill Substation has available capacity for the Development to connect directly into the United Kingdom transmission network. It is not anticipated that any additional external plant or equipment requiring consents will be required to facilitate this connection. If this situation should change, responsibility for securing any necessary consents for upgrades to the existing NGET substation would remain with NGET under the terms of the grid connection agreement, which is explained in more detail in the Grid Connection Statement (DCO Document Reference 5.4).

5.4.4 Site Access

Table 5.4 Site Access Candidate Design Parameters

Site Access Candidate Design				Applicable Design Principles
Tarmacadam Access Road		Northern Route	Southern Route	
	Length of existing tarmac road utilised (m)	500	1,068	The site access road will be tarmacadam between the existing site entrance and the electrical compound marked as Work No. 2 & 3 on the Works Plan (DCO Document Reference: 2.2).
	Length of new tarmac road created (m)	1,002	503	
	Total length of finished tarmac road (m)	1,502	1,571	
	Width of new tarmac road (m)	4 to 7.25 (+ passing places)		
	Area of new tarmac road (m ²)	7,350	3,654	
	Estimated volume of road material required (m ³)	18,245	9,160	
Stone Spine Road	Length of new stone road created (m)	2,160		
	Width of new stone road (m)	4 (+ passing places)		
	Area of new stone road	12,100		
				N/A

Site Access Candidate Design		Applicable Design Principles
	(m ²)	
	Estimated volume of stone required (m ³)	6,713

100. The site access will be taken from Seasalter Road via the existing bell mouth entrance to the existing Cleve Hill Substation at NGR TR 05729 63930.
101. A public footpath crosses the site access point from Seasalter Road and appropriate provision for pedestrian access will be maintained throughout construction and operation, with particular emphasis on the safety of users during the construction phase. Further information on this and other public rights of way within the Development site is included in Chapter 14: Access and Traffic, and Technical Appendix A14.1 Construction Traffic Management Plan, which includes a Public Rights of Way Management Plan.
102. The existing tarmac road which serves the existing Cleve Hill Substation will be utilised as far as NGR TR 05253 64066. From that point, two routes are included in the candidate design parameters:
- The northern route; and
 - The southern route.
103. These two alternative routes are shown in Figure 5.10. The Applicant seeks consent for both routes, but it is only intended to create and use one of the access routes.
104. Both routes are also proposed to be tarmac surfaced as far as the electrical compound. An indicative tarmac road construction cross section drawing is provided in Figure 5.11.
- The northern route*
105. The northern route utilises the route of the existing gravel track which turns off the existing tarmac access road to the north towards the arable land at NGR TR 05257 64063 before turning west after exiting the existing Cleve Hill Substation boundary and running alongside the ditch which forms the northern boundary of the existing Cleve Hill Substation. The existing gravel road would be replaced with a tarmac surface as far as the entrance to the Development substation.
- The southern route*
106. Following comments received during consultation, a potential second route has been added to the Development Design. The southern route would utilise the existing tarmac road which runs to the south of the existing Cleve Hill Substation and exits into the arable land to the west. Where the tarmac currently ends, a new tarmac track would be constructed to connect to the electrical compound.
- The spine road*
107. Beyond the entrance to the electrical compound, a stone access track will be constructed as a spine road through the Development site as shown in Figure 5.3. The spine road will have a width of approximately 4 m with passing places and turning areas. The stone spine road will be an estimated 2.16 km in length.
108. The spine road will be formed either through:
- Excavation of approximately 0.5 m of material from the surface before using geotextile and clean stone to form the road at existing ground level; or through
 - **A 'floating road' construction where the track is formed in the same way but on top of the existing ground level without excavation.**

109. The spine road will be constructed of crushed and graded stone giving a farm-track like appearance. The spine road will be of permeable construction but will also have adequate crown or cross-slope to allow rainwater to be shed. An indicative stone road construction cross section drawing is provided in Figure 5.11.
110. Access to the solar PV array during construction and operation will be taken from grassed tracks and existing farm tracks accessed from the spine road as described in section 5.5.4.
111. The spine road crosses public footpath ZR485 at approximate NGR TR033639. Whilst the main phase of construction activity is undertaken to construct the spine road and in Fields A, B, C, K and L to the west of this crossing, the public footpath will be constantly supervised during construction hours to ensure public safety. The construction of these fields is expected to last a total of approximately 18 to 20 weeks (not necessarily consecutive weeks). An alternative route to link the two ends of the footpath via the Saxon Shore Way will be signposted throughout the construction phase.
112. Further information on this and other public rights of way within the Development site is included in Chapter 14: Access and Traffic, and Technical Appendix A14.1 Construction Traffic Management Plan, which includes a Public Rights of Way Management Plan.

Culverts

113. New and upgraded existing culverts will be required to facilitate safe access to all of the Development site during construction and operation. There is an existing network of culverts across the Development site and this has been utilised where practicable. It has been assumed in the candidate design that where existing culverts provide access to fields, these will need to be upgraded, however at the start of construction each culvert proposed to be used will be surveyed and only culverts that require upgrading will be upgraded.
114. There are three different types of culvert, all of which could be new or upgraded depending on the location:
- Access road crossing;
 - Perimeter fence crossing; and
 - Field access.
115. Mammal-friendly box-section culverts will be utilised for new and upgraded culverts.
116. A watercourse crossing inventory is provided in ES Technical Appendix A5.4.

5.4.5 *Habitat Management Areas*

Table 5.5 Habitat Management Area Candidate Design Parameters

Habitat Management Areas Candidate Design			Applicable Design Principles
Arable Reversion (AR HMA)	Size (ha)	55.5	The arable reversion habitat management area will provide a minimum of 50.1 ha of functional habitat management land for brent geese, lapwing and golden plover. The functional habitat management land will be calculated by subtracting the total area of land within 50 m of the solar PV modules and/or transformers, crest of the flood protection bund, edge of a road surface, and not within an existing
	Primary Purpose	To mitigate for the loss of foraging and roosting habitat for overwintering birds on the arable land within the Development site by managing the land as a grassland habitat designed to consistently support overwintering birds.	
	Summary of	The management of	

Habitat Management Areas Candidate Design			Applicable Design Principles
	Management Prescriptions	the mitigation grassland has been agreed with Natural England to be focussed on provision of optimal foraging conditions for brent goose. This will involve summer grazing by cattle and/or sheep, application of organic fertiliser (e.g. farmyard manure) equivalent of up to 50 kg N per hectare and late summer/autumn cutting if required to provide a nutritious, short-sward grassland capable of supporting 2,097 goose-days per hectare through the winter. The establishment and effectiveness of the HMA will be monitored. It is agreed to continue ongoing consultation with the HMSG through the construction and operational phases of Development.	designation from the total area set aside for management to the north and east of the electrical compound marked as Work No. 2 & 3 on the Works Plan (DCO Document Reference: 2.2).
Freshwater Grazing Marsh (FGM HMA)	Size (ha)	36.6	N/A
	Primary Purpose	To provide support to the landowner for the ongoing management of the SSSI land to complement the management of the adjacent arable reversion land.	
	Summary of Management Prescriptions	Water, drainage and grazing management in consultation with the HMSG and the landowner.	
Graveney Hill Lowland Grassland Meadow (LGM HMA)	Size (ha)	13.3	N/A
	Primary Purpose	To provide a different range of biodiversity enhancements relating to ground nesting birds, small mammals, birds of prey, pollinators etc. in a publicly accessible area of the	

Habitat Management Areas Candidate Design			Applicable Design Principles
		Development site (crossed by public footpath ZV488).	
	Summary of Management Prescriptions	Establishment of a diverse grassland sward and managed grazing to encourage a lowland meadow habitat to establish.	
Existing Cleve Hill Substation complementary management (CHS HMA)	Size	2.0	N/A
	Primary Purpose	To influence the management of habitats adjacent to other habitat management areas to be complementary to the adjacent management.	
	Summary of Management Prescriptions	Unknown, likely related to mowing / grazing frequency and encouraging floristic diversity.	

117. Four distinct areas of specific habitat management are proposed within the Development site. These are:

- Arable reversion – land to be managed to be of specific benefit to dark-bellied brent goose, lapwing and golden plover;
- Freshwater grazing marsh – existing SSSI, SPA and Ramsar wetland which is proposed to be brought under the control of CHSPL to enable large scale complementary habitat management to be undertaken across a wider area.
- Lowland Meadow Creation – the slopes of fields Y and Z where solar PV modules were previously included in early conceptual design will be managed as a lowland meadow, a UK and local biodiversity action plan priority habitat^{7,8}; and
- Existing Cleve Hill Substation – the management of an area of land between the existing site access and the arable reversion area and freshwater grazing marsh could be influenced for the benefit of biodiversity.

5.4.5.1 Arable Reversion

118. 55.5 ha of arable land in the east of the Development site is proposed to be kept free of infrastructure in order to mitigate for the loss of arable habitat currently used by overwintering birds associated with the Swale Special Protection Area (SPA), specifically lapwing, golden plover and dark-bellied brent goose.

119. Arable land in this habitat management area (HMA) will be reverted to grassland pasture. The arable reversion HMA (AR HMA) is designed to be managed to be of specific benefit to those overwintering species, but also to provide other biodiversity benefits to a range of other species, such as breeding waders and marsh harrier.

⁷ Swale Green Grid Partnership (2016). Swale Biodiversity Action Plan. Available at: <https://www.swale.gov.uk/assets/Strategies-plans-and-policies/Biodiversity-Action-Plan-2016.pdf> [Accessed 20/10/2018]

⁸ DEFRA (2008). UK Biodiversity Action Plan Priority Habitat Descriptions, Lowland Meadows. Available at: http://jncc.defra.gov.uk/pdf/UKBAP_BAPHabitats-29-Lowland%20Meadows.pdf [Accessed 20/10/2018]

120. The size, location and management of the area have been the subject of consultation with a Habitat Management Steering Group (HMSG), including Natural England, RSPB and Kent Wildlife Trust. Some of the measures that will be implemented in this area include:
- Sowing with a grass/clover seed mix;
 - A revised water management regime;
 - Application of organic matter to promote growth of a nutritious grass sward; and
 - Controlled grazing (and/or cutting) to promote an appropriate sward length.
121. Further detail on the proposed management measures are provided in Technical Appendix A5.2: Landscape and Biodiversity Management Plan. The rationale for the size and location of this area is provided in Chapter 9: Ornithology.

5.4.5.2 Freshwater Grazing Marsh

122. 37.1 ha of existing freshwater grazing marsh (as shown in Figure 5.1) is also proposed to be included as a HMA – the FGM HMA. This land is within The Swale Site of Special Scientific Interest, Special Protection Area and Ramsar designated area, however following consultation, opportunities to improve the management of this area to bring additional benefits over and above the baseline for biodiversity and the designated interests of the Swale were identified and therefore this land has been included within the Development site boundary so that its management can be delivered and controlled via the DCO.
123. In particular, water management and controlled grazing are likely to be fundamental to achieving the desired outcomes for this area. The details of the management will be adaptive and subject to consultation and agreement with Natural England. In response to consultation responses, however, any benefits the Development may bring to this area are not considered to be mitigation of effects, because the current objectives for the area to be in favourable condition should be assumed to be successfully delivered in the future baseline scenario. Clarification on this is provided in Chapter 9: Ornithology.
124. Further detail on the proposed management measures are provided in Technical Appendix A5.2: Landscape and Biodiversity Management Plan.

5.4.5.3 Lowland Grassland Meadow Creation

125. The aim of the LGM HMA is to establish a grassland sward with greater ecological value than the existing arable land.
126. Arable agricultural land may be one of the most challenging types of habitat to convert/attempt sward enhancement due to its high soil fertility which promotes dominance by a limited diversity of competitive plant species which limits the establishment and success of less-competitive wildflowers and fine grasses. Consequently, grassland enhancement/ restoration is a complex process requiring monitoring and intervention over several years to ensure success, especially on sites with a long history of agricultural improvement.
127. Further detail on the proposed management measures are provided in Technical Appendix A5.2: Landscape and Biodiversity Management Plan.

5.4.5.4 Existing Cleve Hill Substation

128. The aim of the CHS HMA would be to establish a grassland sward with greater ecological value than the existing grassland to complement the management of neighbouring HMAs. This could include a more relaxed mowing regime, introduction of species to encourage pollinators etc. The CHS HMA is subject to agreement with London Array Ltd.

129. Further detail on the proposed management measures are provided in Technical Appendix A5.2: Landscape and Biodiversity Management Plan.

5.4.6 *Flood Defences*

Table 5.6 Flood Defence Maintenance Candidate Design Parameters

Flood Defences Candidate Design		Applicable Design Principles
Examples of Flood Defence Maintenance activities have been agreed with the Environment Agency and the Marine Management Organisation, and included within the design principles definition (non-exhaustive)	(i)	Inspection
	(ii)	Investigation (above MHWS, inclusive of trial pitting)
	(iii)	Replacement of expansion joint material
	(iv)	Concrete repair (to BS EN 1504)
	(v)	Replacement of concrete toe beam
	(vi)	Vegetation management (grass cutting, removal of larger vegetation)
	(vii)	Replacement of loose and missing block work
	(viii)	Repair of voids
	(ix)	Fencing repair / replacement
	(x)	Servicing outfalls
	(xi)	Cleaning outfall ancillary structures
	(xii)	Topping up of embankment crest levels at localised low spots
	(xiii)	Vermin control
	(xiv)	Repairs of rutting in crest
	(xv)	Repointing of jointed structures
	(xvi)	Replacing modular blocks
	(xvii)	Replacement of toe armour as required
	(xviii)	Reinstatement of timber toe piles (on river frontage)
	(xix)	Timber groyne plank replacement
	(xx)	Replacement of bolts on groyne
	(xxi)	Placement of timber rubbing boards on groyne
	(xxii)	Localised movements of beach material
	(xxiii)	Cleaning/dredging of drainage ditch channels
		<p>Flood defence maintenance activities will include works that:</p> <ul style="list-style-type: none"> • use the same materials as those present to date; • do not alter the plan form or cross section of the original defences; • do not provide an overall increase/reduction in flood level; and • do not require excavations of beach material deeper than 1.5 m. <p>Examples of flood defence maintenance activities that satisfy the above criteria are provided in ES Chapter 5: Development Description (section 5.4.6).</p> <p>If maintenance works are required that exceed these design principles, separate consents will be sought.</p>

Flood Defences Candidate Design		Applicable Design Principles
	(xxiv) Replacement of pitching where present	
	(xxv) Replacement of access structures	
	(xxvi) Painting	
	(xxvii) Any other activities required to be undertaken within the four parameters set out in the Outline Design Principles document.	
Emergency Works		Flood defence works required in an emergency can be carried out without the requirement for additional consents, and are defined as activities carried out in response to any flood, or in response to the imminent risk to property (including the Development infrastructure) from flooding.

130. The Environment Agency (EA) has stated during consultation that CHSPL and other infrastructure owners who benefit from the protection afforded by the existing flood defences will be required to undertake future maintenance of the defences from the commencement of operation of the Development. The flood defences which protect the majority of the Development site from coastal flooding are therefore included within the Development site boundary to give CHSPL the powers and rights to enable it to access the flood defences and undertake the type of maintenance activities that the EA would have otherwise undertaken. The design principles guiding the definition of maintenance activities are set out in the Outline Design Principles document (DCO Document Reference 7.1). These design principles reflect those agreed with the EA and set out in a joint position statement which is appended to the Consultation Report (DCO Document Reference 5.1.1).
131. No specific flood defence works over and above those likely to be undertaken on an ongoing basis by the EA to maintain the current standard of protection are currently proposed. Therefore for the purposes of EIA, there is no change predicted to the future baseline. If more extensive works are required in future to maintain the current standard of protection, those works would be subject to the grant of appropriate future consents and EIA (if applicable), in the same way they would be in the absence of the Development.
132. The flood defence maintenance activities will be undertaken within the area marked as flood defences on Figure 5.2. This includes the flood defence structure and either a 15 m buffer seaward of the toe of the defences where they are visible (from the inferred location if they are not) or Mean High Water Springs (MHWS), whichever is further seaward.

5.4.7 *Other Infrastructure*

Table 5.7 Other Infrastructure Candidate Design Parameters

Other Development Candidate Design			Applicable Design Principles
Fencing	Length of Perimeter Fencing (km)	15	N/A
	Fence Type	Deer Fence Treated wooden poles Stock netting	
	Fence Height (m AGL)	2	Fencing and CCTV equipment will not exceed the maximum height AGL of the solar PV modules in the closest solar PV array field as set out in Technical Appendix A5.1.
CCTV	Number of CCTV Cameras	240	N/A
	Support Column Details	100 mm box section galvanised steel column or wooden pole	
	Camera Height (m AGL)	3	Fencing and CCTV equipment will not exceed the maximum height AGL of the solar PV modules in the closest solar PV array field as set out in Technical Appendix A5.1.
	Camera Position	1 m inside the fence boundary	
	CCTV Lighting	Infrared outside daylight hours (not visible light)	
Lighting	Solar PV Array transformers	Manually operated lighting PIR motion sensor activated security / emergency lighting.	No lighting will be permanently operated.
	Electrical Compound	Manually operated lighting Passive infra-red (PIR) motion sensor activated security / emergency lighting.	

5.4.7.1 *Fencing, Security Measures and Lighting*

Fencing

133. A perimeter fence will enclose the operational areas of the Development to prevent public access into the solar PV arrays. To achieve this, the fence must also separate the public right of way, and the permissive footpath from the solar PV array fields. This is expected to result in four perimeter fences being required.
134. The fence will **be a 'deer fence' of approximately 2 m** in height with wooden posts and stock netting to reflect the built form of other fencing in the local area. An example is shown in Plate 5.10.
135. Gates in the fencing will be placed in each field to facilitate access to the outer perimeter of the Development site for maintenance and security purposes.

136. The fence will incorporate mammal gates at regular (every 50 m) intervals to avoid the fence acting as a barrier to movement of mammals through the Development site.
137. A 1.2 m high post and wire stock fence will also be installed alongside Cleve Hill Road to prevent unauthorised access to the lowland grassland meadow habitat management area in the southeast of the Development site. Gates will be installed to ensure continued public access via the public footpath which crosses the area, and to allow vehicle access for land management.
138. Section 5.6.1 of this chapter provides more detail on the use of temporary and mobile stock fencing for livestock control.

CCTV

139. Pole mounted internal facing closed circuit television (CCTV) systems will be deployed within the perimeter fence of the operational areas of the Development. An example is shown in Plate 5.10.
140. The CCTV will be mounted at a maximum of 3 m AGL on either wooden or steel columns. The CCTV system will utilise infrared (invisible) lighting to capture images in low light conditions. Where the cameras are adjacent to publicly accessible locations or **private property, the equipment will be sensitively located, and can also be “digitally blanked” in order to prevent privacy issues.**

Lighting

141. Visible lighting, which will be manually controlled and switch on only when activated by passive infra-red (PIR) sensors for security/emergency purposes, will be deployed around the electrical compound and at the transformers within the fields of the solar PV arrays. The lighting will be fixed to the transformers themselves rather than being stand alone. No areas of the Development will be continuously lit during operation.

Plate 5.10 – Example fencing and CCTV camera



5.4.7.2 *Permissive Footpath*

142. Following suggestions made during consultation, a permissive footpath is proposed to be created and maintained during the operational phase of the Development to provide additional public access to the Development site over and above the existing public rights of way.

143. The permissive footpath uses the existing track though the Development site from the seawall at NGR TR 04265 64829 south past the Development electrical compound before following drainage ditches southeast to meet existing public footpath ZR 488 where it crosses over two drainage ditches on small footbridges at NGR TR 05008 63325.

144. Further detail is provided in Chapter 13: Socioeconomics, Tourism, Recreation and Land-use and the proposed permissive footpath is shown on Figure 13.1.

5.5 Construction

145. An indicative summary of the construction phasing is provided in Table 5.8.

Table 5.8 Candidate Construction Phasing

Construction Activity		Month																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Phase One	Site Access Road	■	■	■																						
	Perimeter Fencing	■	■																							
	CCTV		■																							
	Temporary Compound	■	■	■	■	■	■																			
	Bund Construction		■	■	■	■	■	■	■														■	■		
	Spine Road			■	■	■	■	■	■																	
	Drainage			■	■	■	■	■	■																	
	Compound Roads			■	■	■	■	■	■	■	■															
	Structural Concrete			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■								
	Solar Array Construction						■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Electrical Compound Installation									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Phase Two	Energy Storage Facility Concrete			■	■	■	■	■	■	■	■	■	■												
Energy Storage Facility Installation														■	■	■	■	■	■	■	■	■	■	■	■	
400 kV Cable																										

5.5.1 Phasing

146. The construction period is likely to be undertaken in at least two phases:
- Phase one will include the construction of all aspects of the Development except the energy storage facility; and
 - Phase two will include the construction of the energy storage facility (phase two in itself could be undertaken in multiple phases in order to deliver smaller amounts of energy storage capacity gradually).
147. Whilst the candidate design assumes that phase two will be undertaken during phase one, the design principles in the Outline Design Principles document (DCO Document Reference 7.1) allow for the flexibility to deliver the energy storage facility separately (and potentially via its own phased construction) at a later date if necessary to provide greater scope to exploit technological improvements.
148. The indicative phase one construction period is 24 months. The DCO includes for a phasing plan to be submitted to the LPA for approval prior to the commencement of development.

5.5.1.1 Phase One

149. Phase one of Development construction is currently anticipated to last 24 months.
150. Subject to achieving the necessary consents, the anticipated start date for construction is spring 2021.
151. To build the solar PV array, the field identification detailed in Technical Appendix A5.1, Field Data, will be utilised. A small temporary field compound will be established in an adjacent field to serve the field under construction.
152. The types of construction activities that may be required include during phase one (not necessarily in order):
- Site preparation and civil engineering works:
 - Preparation of arable land for construction (*e.g.*, seeding);
 - Establishment of the key habitat management areas;
 - Import of construction materials, plant and equipment to site;
 - Establishment of the perimeter fence;
 - The establishment of the main construction compound;
 - Construction of the spine road;
 - The upgrade or construction of crossing points (culverts) over drainage ditches; and
 - Marking out the location of the Development infrastructure.
 - Construction of onsite electrical infrastructure to facilitate the export of generated electricity:
 - Construction of the flood protection bund;
 - Site preparation and civils for the Development substation and energy storage facility;
 - Trenching and installation of electric cabling;
 - Import of components to site; and
 - Installation of the Development substation.
 - Solar PV array construction:
 - Import of components to site;
 - Piling of module mount verticals;
 - Erection of module mounting structures;
 - Mounting of modules and inverters;

- Trenching and installation of electric cabling;
 - Transformer foundation excavation and construction; and
 - Installation of transformers.
- Testing and commissioning;
 - Landscaping and habitat creation.

5.5.1.2 Phase Two

153. Construction phase two of the Development includes the establishment of the energy storage facility and is expected to last a total of up to 6 months but this could sub-phased.
154. Consideration would be given to the timing of works within the electrical compound in relation to potential disturbance impacts on the AR HMA if phase 2 occurred after phase one (rather than concurrently).
155. Regardless of whether it is to be delivered separately or concurrently, provision for the energy storage facility will be made during phase one of construction while the energy storage area is be used as a construction compound and therefore most of the site preparation will have already taken place. The types of construction activities that may be required include during phase two (not necessarily in order) are therefore likely to include:
- Energy storage facility construction:
 - Installation of electric cabling;
 - Foundation construction (if not already in situ);
 - Import of components to site; and
 - Installation of energy storage facility.
156. If the energy storage facility is installed concurrently with the rest of the Development during phase one, the work would be undertaken over a longer timescale to reduce traffic impacts. If phase two were delivered separately, it would be subject to the same design principle HGV traffic limitations set out in section 5.5.2.2 of this chapter and would also be subject to a design principle limiting phase two construction to 6 months.

5.5.2 Construction Control Mechanisms

5.5.2.1 Traffic Management

157. An Outline Construction Traffic Management Plan (CTMP) has been developed as part of the EIA which will guide the delivery of materials and staff onto the Development site during the construction phase. The Outline CTMP is provided as ES Technical Appendix A14.1.
158. Details of the traffic movements expected and staff numbers are given in Chapter 14: Access and Traffic. These include maximum expected numbers of vehicle movements per day, which have been used as the candidate scenario for assessment purposes.
159. A design principle has been established in respect of maximum HGV movements of 80 HGV vehicle movements per day (40 HGVs visiting site per day).
160. HGV delivery hours are restricted to avoid peak times at sensitive receptors on the delivery route.

5.5.2.2 Construction Environmental Management Plan

161. An Outline Construction Environmental Management Plan (CEMP) (ES Technical Appendix A5.4) has been developed as part of the EIA which will guide the construction process through environmental controls in order to promote good construction practice and avoid adverse impacts during the construction phase.

162. The Outline CEMP brings together control measures that are commonly included in documents such as working hours, Site Waste Management Plans, Pollution Prevention Plans and Codes of Construction Practice and includes a tabulated executive summary for easy reference during the construction phase.
163. Core working hours are proposed to be between 07.00 until 19.00, Monday to Friday and 07.00 until 13.00 on a Saturday (unless in exceptional circumstances where need arises to protect plant, personnel or the environment).
164. Depending on the time of year, some work lighting may be required to facilitate construction during these hours.
165. The Outline CEMP will be embedded in the Development design and the assessment of effects will assume that the measures contained within the CEMP are implemented in full.

5.5.3 Temporary Construction Compounds

166. The main temporary construction compound will be established within the electrical compound on the site of the energy storage facility prior to installation of the energy storage infrastructure. As outlined in section 5.5.1, the energy storage plant will be constructed either separately, or is likely to be one of the last elements of the project to be installed and therefore this area can be utilised for construction purposes for the majority of the construction phase. Smaller temporary compounds will be located across the Development site during construction, local to each phase of construction.

5.5.3.1 Main Temporary Construction Compound

167. The main temporary construction compound of approximately 10,000 m² (100 x 100 m) will be established on the energy storage facility area during the construction phase. This compound will likely include:
 - Temporary portable buildings to be used for site offices, the monitoring of incoming vehicles and welfare facilities;
 - Toilet facilities would be provided with a packaged treatment system to be designed in liaison with the EA;
 - Containerised storage areas for tools, small plant and parts;
 - Parking for construction vehicles and workers' vehicles;
 - A receiving area for incoming vehicles;
 - A concrete batching facility; and
 - A bunded area for refuelling and storage of fuels and greases.
168. The construction compound will become the energy storage facility towards the end of the construction phase and therefore the initial establishment of the compound will be designed to facilitate the later installation of the energy storage infrastructure.

5.5.3.2 Temporary Field Compounds

169. A small unsurfaced temporary compound with welfare facilities and storage of tools and materials will be established adjacent to each field under construction. No fuel or oil will be stored in these areas, which will generally be located adjacent to the spine road (where it provides access directly to the field) and/or at least 10 m away from the nearest drainage ditch.
170. Flood defence maintenance activities during construction would be served by small temporary compounds within the perimeter fence.

5.5.4 *Temporary Roadways*

171. Depending on weather conditions during construction, temporary roadways (*e.g.*, plastic matting) may be utilised to access parts of the Development site during construction to avoid excessive soil disturbance or compaction.

5.5.5 *Site Reinstatement and Habitat Creation*

172. At the commencement of construction and following completion, a programme of landscaping and habitat creation will commence. A Landscape and Biodiversity Management Plan is provided in Technical Appendix A5.2, which sets out the proposals for how the land will be managed throughout the construction and operational phases, and how this will be implemented during construction, and following the completion of construction.

5.6 Operation

173. During the operational phase, activity on the Development site will be minimal and would be restricted principally to vegetation and livestock management (the Development site will be grazed by sheep), equipment/infrastructure maintenance and servicing including cleaning and replacement of any components that fail, and monitoring to ensure the continued effective operation of the Development.

174. Operational staff could require to access the Development 24 hours a day, seven days a week.

175. An indication of likely operational traffic requirements is provided in Chapter 14: Access and Traffic.

5.6.1 *Flood Defence Maintenance*

176. Flood defence maintenance activities during operation would be served by small temporary compounds within the solar PV arrays perimeter fence at locations where there is access to the flood defences. Flood defence works will remain subject to Environmental Permit applications within which temporary compound locations will be specified and agreed as part of the method statements for the maintenance works.

5.6.2 *Sheep Grazing*

177. During operation, vegetation within the Development site will be grazed by sheep. This has the benefit of continuing the agricultural use of the Development site whilst still giving scope for biodiversity enhancement through controlled grazing⁹. This land use is consistent with historic and present land use in the area such as grazing which takes place on adjacent land.

178. Temporary stock fencing will be utilised to keep sheep to areas around the solar PV arrays where vegetation control is required and separate them from areas where a more relaxed grazing regime may be desirable at certain times of year, for example around the ditch edge habitats. Stocking densities and breeds used will be chosen to fit the conditions onsite.

179. Further details on how grazing will be used to manage vegetation are set out in ES Technical Appendix A5.2, Outline Landscape and Biodiversity Management Plan.

5.6.3 *Cleaning Panels*

180. Cleaning would likely be undertaken by a vehicle travelling down the minimum 2.5 m gaps between the arrays with a cleaning boom attached. Technological advances could

⁹ BRE (2014) Agricultural Good Practice Guidance for Solar Farms. Ed J Scurlock

result in automated cleaning equipment being used during the lifetime of the Development.

181. Solar PV modules are typically cleaned using distilled or deionized water. Detergents or abrasive products are not used as they have potential to damage the solar PV modules. The run-off from cleaning would therefore be clean water and would be dealt with in the same way as rainwater.
182. The need for cleaning would be appraised during the early stages of operation as it can be the case that cleaning is not worthwhile as the short-term benefit of cleaning the solar PV modules can be outweighed by the costs of cleaning.

5.6.4 Security

183. Security measures such as perimeter sensors, PIR lighting and alarms would be controlled from a central control room offsite. In the event of an emergency, security personnel would be despatched to the Development to respond.
184. Operational staff could require to access the Development 24 hours a day, seven days a week.

5.7 Decommissioning

185. When the operational phase ends, the Development will require decommissioning. All solar PV array infrastructure including solar PV modules, mounting structures, cabling, inverters and transformers would be removed from the Development site and recycled or disposed of in accordance with good practice and market conditions at that time.
186. A Decommissioning Plan, to include timescales and transportation methods, will be agreed in advance with the local planning authority and will be subject to environmental controls and legislation extant at the time. An Outline Decommissioning and Restoration Plan is provided as Technical Appendix A5.5 to give an indication of the likely activities to be undertaken. Decommissioning is expected to take between 6 and 12 months.
187. The effects of decommissioning are similar to, or often of a lesser magnitude than, construction effects and are considered as such in the relevant sections of this ES.

2020 No. 0000

INFRASTRUCTURE PLANNING

The Hornsea Three Offshore Wind Farm Order 2020

Made - - - - *31st December 2020*

Coming into force - - *22nd January 2021*

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An application has been made to the Secretary of State under section 37 of the Planning Act 2008 (“the 2008 Act”)(a) for an order granting development consent.

(a) 2008 c.29. Section 37 was amended by section 128(2) and Schedule 13, Part 1, paragraphs 1 to 5 of the Localism Act 2011 (c.20).

The application was examined by the Examining Authority appointed by the Secretary of State pursuant to section 61(a) and section 65(b) of Part 6 of the 2008 Act and carried out in accordance with Chapter 4 of that Act and with the Infrastructure Planning (Examination) Procedure Rules 2010(c). The Examining Authority has submitted a report to the Secretary of State under section 74(2)(d) of the 2008 Act.

The Secretary of State has considered the report and recommendation of the Examining Authority, has taken into account the environmental information in accordance with regulation 3 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009(e) and, as a national policy statement has effect in relation to the proposed development, has had regard to the documents and matters referred to in section 104(2)(f) of the 2008 Act.

The Secretary of State, having decided the application, has determined to make an Order giving effect to the proposals comprised in the application on terms that in the opinion of the Secretary of State are not materially different from those proposed in the application.

The Secretary of State is satisfied that open space within the Order land, when burdened with any new rights authorised for compulsory acquisition under the terms of this Order, will be no less advantageous than it was before such acquisition, to the persons whom it is vested, other persons, if any, entitled to rights of common or other rights, and the public, and that, accordingly, section 132(3)(g) of the 2008 Act applies.

The Secretary of State, in exercise of the powers conferred by sections 114, 115, 120(h) and 149A of the 2008 Act, makes the following Order—

PART 1

PRELIMINARY

Citation and commencement

1. This Order may be cited as the Hornsea Three Offshore Wind Farm Order 2020 and comes into force on 22nd January 2021.

Interpretation

2.—(1) In this Order—

“the 1961 Act” means the Land Compensation Act 1961(i);

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- (a) Section 61 was amended by section 128(2) and Schedule 13, paragraph 18 to the Localism Act 2011 and by section 26 of the Infrastructure Act 2015 (c.7).
 - (b) Section 65 was amended by Schedule 13 paragraph 22(2) and Schedule 25, paragraph 1 to the Localism Act 2011 and by section 27(1) of the Infrastructure Act 2015.
 - (c) S.I. 2010/103. This instrument was amended by S.I. 2012/635.
 - (d) Section 74 was amended by sections 128(2) and 237 and by Schedule 13, paragraph 29 and Schedule 25, paragraph 1, to the Localism Act 2011.
 - (e) S.I. 2009/2263. Regulation 3 was amended by S.I. 2012/635 and S.I. 2012/787. S.I. 2009/2263 was revoked by S.I. 2017/572, but continues to apply to this application for development consent by virtue of transitional provisions contained in regulation 37(2) of that instrument.
 - (f) Section 104 was amended by section 58(5) of the Marine and Coastal Access Act 2009 (c.23) and by section 128(2) of the and Schedule 13, paragraphs 1 and 49(1) to (6) of the Localism Act 2011.
 - (g) Section 132 was amended by section 24(3) of the Growth and Infrastructure Act 2013 (c. 27).
 - (h) Sections 114,115 and 120 were amended by sections 128(2) and 140 and Schedule 13, paragraphs 1, 55(1), (2) and 60(1) and (3) of the Localism Act 2011. Relevant amendments were made to section 115 by section 160(1) to (6) of the Housing and Planning Act 2016 (c. 22).
 - (i) 1961 c.33.

“the 1965 Act” means the Compulsory Purchase Act 1965(a);

“the 1980 Act” means the Highways Act 1980(b);

“the 1981 Act” means the Compulsory Purchase (Vesting Declarations) Act 1981(c);

“the 1989 Act” means the Electricity Act 1989(d);

“the 1990 Act” means the Town and Country Planning Act 1990(e);

“the 1991 Act” means the New Roads and Street Works Act 1991(f);

“the 2004 Act” means the Energy Act 2004(g);

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009(h);

“access to works plan” means the plan or plans certified as the access to works plan or plans by the Secretary of State for the purposes of this Order under article 36 (certification of plans and documents etc);

“ancillary works” means the ancillary works described in Part 2 of Schedule 1 (ancillary works) and any other works authorised by this Order and which are not development within the meaning of section 32 of the 2008 Act;

“authorised development” means the development and associated development described in Part 1 of Schedule 1 (authorised project);

“authorised project” means the authorised development and the ancillary works authorised by this Order;

“the book of reference” means the document certified by the Secretary of State as the book of reference for the purposes of the Order under article 36;

“box-type gravity base foundation” means a structure principally of steel, concrete, or steel and concrete with a square base which rests on the seabed due to its own weight with or without added ballast or additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“buoy” means any floating device used for navigational purposes or measurement purposes;

“cables” means up to 600kV cables for the transmission of electricity, including one or more cable crossings;

“cable circuits” means a number of electrical conductors necessary to transmit electricity between two points within the authorised development; this comprises, in the case of HVAC transmission, three conductors which may be bundled as one cable or take the form of three separate cables, and, in the case of HVDC transmission two conductors, which may be attached together or take the form of single cables, and in either case the circuit may include one or more auxiliary cables (normally fibre optic cables) for the purpose of control, monitoring, protection or general communications;

“cable crossings” means a crossing of existing sub-sea cables or pipelines or other existing infrastructure by a cable or, where cables run together in parallel, a set of cables, authorised by this Order together with physical protection measures including rock placement or other protection measures;

“cable protection” means physical measures for the protection of cables including but not limited to concrete mattresses, with or without frond devices, and/or rock placement (but not material used for cable crossings);

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- (a) 1965 c.56.
 - (b) 1980 c.66.
 - (c) 1981 c.66.
 - (d) 1989 c.29.
 - (e) 1990 c.8.
 - (f) 1991 c.22.
 - (g) 2004 c.20.
 - (h) 2009 c.23.

“commence” means—

- (a) in relation to works seaward of MHWS, the first carrying out of any licensed marine activities authorised by the deemed marine licences, save for operations consisting of pre-construction monitoring surveys approved under the deemed marine licences, and
- (b) in respect of any other works comprised in the authorised project, the first carrying out of any material operation (as defined in section 155 of the 2008 Act) forming part of the authorised project other than onshore site preparation works and the words “commencement” and “commenced” must be construed accordingly;

“connection works” means Work Nos. 6 to 15 and any related further associated development in connection with those works;

“construction compound” means a construction site associated with the connection works including central offices, welfare facilities, and storage for construction of the authorised project;

“deemed marine licences” means the marine licences set out in Schedules 11 (deemed marine licence under the 2009 Act – generation assets) and 12 (deemed marine licence under the 2009 Act – transmission assets);

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of this Order under article 36;

“frond devices” means flow energy dissipation devices, which reduce current velocity and turbulence and encourage settlement of sediment;

“gravity base foundation” means a structure principally of steel, concrete, or steel and concrete with a base which tapers as it rises which rests on the seabed due to its own weight with or without added ballast or additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“highway” and “highway authority” have the same meaning as in the 1980 Act^(a)

“horizontal directional drilling” refers to a boring technique involving drilling in an arc between two points;

“horizontal directional drilling compound” means a construction site associated with the connection works where horizontal directional drilling or other trenchless construction technique is proposed including hard standing, lay down and storage areas for construction materials and equipment, areas for spoil, areas for vehicular parking, bunded storage areas, areas comprising water and bentonite tanks, pumps and pipes, areas for welfare facilities including offices and canteen and washroom facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure and areas for other facilities required for construction purposes;

“HVAC” means high voltage alternating current;

“HVDC” means high voltage direct current;

“in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan” means the document certified as the in principle Hornsea Three Southern North Sea Special Area for Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order under article 36;

“intrusive activities” means activities including anchoring of vessels, jacking up of vessels, depositing soil and seabed clearance;

“jacket foundation” means a lattice type structure constructed of steel, which may include scour protection and additional equipment such as, J-tubes, corrosion protection systems and access platforms;

(a) “Highway” is defined in section 328(1) of the 1980 Act. For “highway authority” see section 1 to that Act. Relevant amendments are as follows: section 1 was amended by sections 8 and 102 and Schedules 4, paragraph 1 and Schedule 17 of the Local Government Act 1985 (c.51), by section 21 of the 1991 Act and by section 1(6) and Schedule 1, paragraphs 1 to 4 of the Infrastructure Act 2015 (c.7).

“joint bay” means an excavation located at regular intervals along the cable route consisting of a concrete flat base slab constructed beneath the ground to facilitate the jointing together of the cables;

“land plans” means the plan or plans certified as the land plan or plans by the Secretary of State for the purposes of this Order under article 36;

“LAT” means lowest astronomical tide;

“lead local flood authority” has the meaning in section 6(7) (other definitions) of the Flood and Water Management Act 2010(a);

“link box” means the underground metal box placed within a plastic or concrete pit where the metal sheaths between adjacent export cable sections are connected and earthed installed within a ground level manhole or inspection chamber to allow access to the link box for regular maintenance or fault-finding purposes;

“location plan” means the plan or plans certified as the location plan or plans by the Secretary of State for the purposes of this Order under article 36 ;

“maintain” includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Markham’s Triangle exclusion zone plan” means the document certified as the Markham’s Triangle exclusion zone plan by the Secretary of State for the purposes of this Order under article 36;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“mean low water springs” or “MLWS” means the lowest level which spring tides reach on average over a period of time;

“MMO” means the Marine Management Organisation;

“monopile foundation” means a steel pile, driven and/or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“mono suction bucket foundation” means a steel cylindrical structure which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential, and may include scour protection and additional equipment such as J-tubes;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the wind turbine generators;

“offshore electrical installations” means the offshore type 1 substations, the offshore type 2 substations, the offshore subsea HVAC booster stations and the offshore HVAC booster stations forming part of the authorised development;

“offshore HVAC booster station” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

(c) electrical equipment required to provide reactive power compensation; and

(d) housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the substation;

“offshore subsea HVAC booster station” means a sealed steel or concrete structure located under the surface of the sea, attached to the seabed by means of a foundation, containing electrical equipment required to provide reactive power compensation;

“offshore substation” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

(a) 2010 c.29.

(a) electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation; and

(b) housing accommodation, storage, workshop auxiliary equipment, and facilities for operating, maintaining and controlling the substation or wind turbine generators;

“offshore type 1 substation” means the smaller version of the offshore substations assessed in the environment statement;

“offshore type 2 substation” means the larger version of the offshore substations assessed in the environment statement;

“offshore works” means Work Nos. 1, 2, 3, 4 and 5 and any related further associated development in connection with those works;

“onshore construction works” means—

(a) temporary haul roads;

(b) vehicular accesses; and

(c) construction compound(s), or if horizontal directional drilling is to be used, horizontal directional drilling compound(s).

“onshore HVAC booster station” means a compound, containing electrical equipment required to provide reactive power compensation, and auxiliary equipment and facilities for operating, maintaining and controlling the substation, with external landscaping and means of access;

“onshore HVDC/HVAC substation” means a compound, comprising the onshore HVDC converter station or the onshore HVAC substation, containing electrical equipment required to switch, transform, convert electricity and provide reactive power compensation, with external landscaping and means of access;

“onshore site preparation works” means operations consisting of site clearance, pre-planting of landscaping works, archaeological investigations, environmental surveys, investigations for the purpose of assessing ground conditions, remedial work in respect of any contamination or other adverse ground conditions, diversion and laying of services, erection of any temporary means of enclosure, creation of site accesses and the temporary display of site notices or advertisements;

“the Order land” means the land shown on the land plans which is within the limits of land to be acquired or used and described in the book of reference;

“the offshore Order limits and grid coordinates plan” means the plan or plans certified by the Secretary of State as the offshore Order limits and grid coordinates plan for the purposes of the Order under article 36 ;

“the onshore Order limits plan” means the plans certified by the Secretary of State as the onshore Order limits plan for the purposes of the Order under article 36;

“the Order limits” means the limits shown on the offshore Order limits and grid coordinates plan and the onshore Order limits plan within which the authorised project may be carried out, whose grid coordinates seaward of MHWS are set out in paragraph 2 of Part 1 of Schedule 1 to this Order;

“outline code of construction practice” means the document certified as the outline code of construction practice by the Secretary of State for the purposes of this Order under article 36;

“outline construction traffic management plan” means the document certified as the outline construction traffic management plan by the Secretary of State for the purposes of this Order under article 36;

“outline ecological management plan” means the document certified as the outline ecological management plan by the Secretary of State for the purposes of this Order under article 36;

“outline landscape plan” means the document certified as the outline landscape plan by the Secretary of State for the purposes of this Order under article 36;

“outline offshore written scheme of investigation” means the document certified as the outline offshore written scheme of investigation by the Secretary of State for the purposes of this Order under article 36;

“outline onshore written scheme of investigation” means the document certified as the outline onshore written scheme of investigation by the Secretary of State for the purposes of this Order under article 36;

“pin piles” means steel cylindrical piles driven and/or drilled into the seabed to secure jacket foundations;

“pontoon gravity base 1 foundation” means a structure principally of steel, concrete, or steel and concrete with a base made up of up to three rectangular pontoons which rests on the seabed due to its own weight with or without added ballast or additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“pontoon gravity base 2 foundation” means a structure principally of steel, concrete, or steel and concrete with a base made up of a pontoon arranged in a rectangle around an open centre which rests on the seabed due to its own weight with or without added ballast or additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“public rights of way plan” means the plan or plans certified as the temporary stopping up of public rights of way plan by the Secretary of State for the purposes of this Order under article 36;

“relevant planning authority” means the district planning authority for the area in which the land to which the relevant provision of this Order applies is situated;

“requirements” means, or a reference to a numbered requirement is to, those matters set out in Part 3 of Schedule 1 (requirements) to this Order;

“scour protection” means measures to prevent loss of seabed sediment around any structure placed in or on the seabed by use of protective aprons, mattresses with or without frond devices, or rock and gravel placement;

“SNCB” means an organisation charged by government with advising on nature conservation matters;

“street” means a street within the meaning of section 48 of the 1991 Act^(a), together with land on the verge of a street or between two carriageways, and includes part of a street;

“street authority”, in relation to a street, has the same meaning as in Part 3 of the 1991 Act^(b);

“streets plan” means the plan or plans certified as the streets plan or plans by the Secretary of State for the purposes of this Order under article 36;

“suction bucket” means a steel cylindrical structure attached to the legs of a jacket foundation which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“transition joint bay” means the underground concrete bays in Work No. 7 where the offshore export cable circuits comprised in Work No. 6 are jointed to the onshore export cable circuits;

“transition piece” means the metal structure attached to the top of the foundation where the base of the wind turbine generator is connected and may include additional equipment such as J-tubes, corrosion protection systems, boat access systems, access platforms, craneage, electrical transmission equipment and associated equipment;

“tree preservation order and hedgerow plan” means the plan or plans certified as the tree preservation order and hedgerow plan or plans by the Secretary of State for the purposes of this Order under article 36;

(a) Section 48 was amended by section 124 (1) and (2) of the Local Transport Act 2008 (c.26).

(b) “Street authority” is defined in section 49, which was amended by section 1(6) and paragraphs 113 and 117 of Schedule 1 to the Infrastructure Act 2015.

“undertaker” means Orsted Hornsea Project Three (UK) Limited (company number 08584210);

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” means a structure comprising a tower, rotor with three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation or transition piece; and

“works plan” means the plan or plans certified as the works plan by the Secretary of State for the purposes of the Order under article 36.

(2) References in this Order to rights over land include references to rights to do or restrain or to place and maintain, anything in, on or under land or in the air-space above its surface and references in this Order to the imposition of restrictive covenants are references to the creation of rights over the land which interfere with the interests or rights of another and are for the benefit of land which is acquired under this Order or which is an interest otherwise comprised in the Order land.

(3) All distances, directions, capacities and lengths referred to in this Order are approximate and distances between points on a work comprised in the authorised development shall be taken to be measured along that work.

(4) Any reference in this Order to a work identified by the number of the work is to be construed as a reference to the work of that number authorised by this Order.

(5) Unless otherwise stated, references in this Order to points identified by letters are to be construed as references to the points so lettered on the works plan.

(6) The expression “includes” is to be construed without limitation unless the contrary intention appears.

PART 2 PRINCIPAL POWERS

Development consent etc. granted by the Order

3.—(1) Subject to the provisions of this Order and to the requirements the undertaker is granted—

- (a) development consent for the authorised development; and
- (b) consent for the ancillary works,

to be carried out within the Order limits.

(2) Subject to the requirements, Work Nos. 1 to 5 must be constructed within the Order limits seaward of MHWS and Work Nos. 6 to 15 must be constructed within the Order limits landward of MHWS.

Power to maintain the authorised project

4.—(1) The undertaker may at any time maintain the authorised project, except to the extent that this Order or an agreement made under this Order provides otherwise.

(2) The power to maintain conferred under paragraph (1) does not relieve the undertaker of any requirement to obtain any further licence under Part 4 of the 2009 Act (marine licensing) for offshore works not covered by the deemed marine licences.

Benefit of the Order

5.—(1) Subject to this article, the provisions of this Order have effect solely for the benefit of the undertaker.

(2) Subject to paragraph (4), the undertaker may with the written consent of the Secretary of State—

- (a) transfer to another person (“the transferee”) any or all of the benefit of the provisions of this Order (including the deemed marine licences) and such related statutory rights as may be agreed between the undertaker and the transferee; and
- (b) grant to another person (“the lessee”) for a period agreed between the undertaker and the lessee any or all of the benefit of the provisions of the Order (including the deemed marine licences) and such related statutory rights as may be so agreed.

except where paragraph (7) applies, in which case no consent of the Secretary of State is required.

(3) Where an agreement has been made in accordance with paragraph (1) references in this Order to the undertaker, except in paragraphs (6) and (6), shall include references to the transferee or lessee.

(4) The undertaker shall consult the Secretary of State before making an application for consent under this article by giving notice in writing of the proposed application.

(5) The Secretary of State shall consult the MMO before giving consent to the transfer or grant to another person of the benefit of the provisions of the deemed marine licences.

(6) Where the undertaker has transferred any benefit, or for the duration of any period during which the undertaker has granted any benefit, under paragraph (1)—

- (a) the benefit transferred or granted (“the transferred benefit”) shall include any rights that are conferred, and any obligations that are imposed, by virtue of the provisions to which the benefit relates;
- (b) the transferred benefit shall reside exclusively with the transferee or, as the case may be, the lessee and the transferred benefit shall not be enforceable against the undertaker; and
- (c) the exercise by a person of any benefits or rights conferred in accordance with any transfer or grant under paragraph (1) is subject to the same restrictions, liabilities and obligations as would apply under this Order if those benefits or rights were exercised by the undertaker.

(7) The consent of the Secretary of State is required for the exercise of powers under paragraph (2) except where—

- (a) the transferee or lessee is the holder of a licence under section 6 of the 1989 Act; or
- (b) the time limits for claims for compensation in respect of the acquisition of land or effects upon land under this Order have elapsed and—
 - (i) no such claims have been made,
 - (ii) any such claim has been made and has been compromised or withdrawn,
 - (iii) compensation has been paid in final settlement of any such claim,
 - (iv) payment of compensation into court has taken place in lieu of settlement of any such claim, or
 - (v) it has been determined by a tribunal or court of competent jurisdiction in respect of any such claim that no compensation shall be payable.

(8) Prior to any transfer or grant under this article taking effect the undertaker must give notice in writing to the Secretary of State, and if such transfer or grant relates to the exercise of powers in their area, to the MMO and the relevant planning authority.

(9) A notice required under paragraphs (4) and (8) must—

- (a) state—
 - (i) the name and contact details of the person to whom the benefit of the provisions will be transferred or granted;

- (ii) subject to paragraph (10), the date on which the transfer will take effect;
 - (iii) the provisions to be transferred or granted;
 - (iv) the restrictions, liabilities and obligations that, in accordance with paragraph (6)(c), will apply to the person exercising the powers transferred or granted; and
 - (v) where paragraph (7) does not apply, confirmation of the availability and adequacy of funds for compensation associated with the compulsory acquisition of the Order land.
- (b) be accompanied by—
- (i) where relevant, a plan showing the works or areas to which the transfer or grant relates; and
 - (ii) a copy of the document effecting the transfer or grant signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted.

(10) The date specified under paragraph (9)(a)(ii) in respect of a notice served in respect of paragraph (8) must not be earlier than the expiry of fourteen days from the date of the receipt of the notice.

(11) The notice given under paragraph (8) must be signed by the undertaker and the person to whom the benefit of the powers will be transferred or granted as specified in that notice.

(12) The provisions of articles 8 (street works), 10 (temporary stopping up of streets), 18 (compulsory acquisition of land), 20 (compulsory acquisition of rights), 26 (temporary use of land for carrying out the authorised project) and 27 (temporary use of land for maintaining the authorised project) shall have effect only for the benefit of the undertaker and a person who is a transferee or lessee who is also—

- (a) in respect of Work Nos. 6 to 15 a person who holds a licence under the 1989 Act, or
- (b) in respect of functions under article 8 relating to street, a street authority.

Application and modification of legislative provisions

6.—(1) Regulation 6 of the Hedgerows Regulations 1997(a) is modified so as to read for the purposes of this Order only as if there were inserted after paragraph (1)(j) the following—

“(k) or for carrying out development which has been authorised by an order granting development consent pursuant to the Planning Act 2008.”

(2) The provisions of the Neighbourhood Planning Act 2017(b) do not apply in relation to the construction of works carried out for the purpose of, or in connection with, the construction or maintenance of the authorised project, insofar as they relate to temporary possession of land under articles 26 (temporary use of land for carrying out the authorised project) and 27 (temporary use of land for maintaining the authorised project) of this Order.

Defence to proceedings in respect of statutory nuisance

7.—(1) Where proceedings are brought under section 82(1) of the Environmental Protection Act 1990(c) (summary proceedings by persons aggrieved by statutory nuisances) in relation to a nuisance falling within paragraph (g) of section 79(1) of that Act (statutory nuisances and inspections therefor) no order may be made, and no fine may be imposed, under section 82(2) of that Act if—

- (a) the defendant shows that the nuisance—

(a) S.I. 1997/1160. Relevant amendments to this instrument have been made by section 73(2) of the Countryside and Rights of Way Act 2000 (c. 37) and by S.I. 2003/2155, S.I. 2006/1177, S.I. 2009/1307 and S.I. 2105/377.

(b) 2017 c.20.

(c) 1990 c.43. Relevant amendments are as follows: section 82 was amended by section 107 and Schedule 17 paragraph 6 of the Environment Act 1995 (c.25) and section 5(2) of the Noise and Statutory Nuisance Act 1993 (c.40), and section 79 was amended by sections 101 and 102 of the Clean Neighbourhoods and Environment Act 2005 (c.16), by section 2 of the Noise and Statutory Nuisance Act 1993 and by section 120 and Schedule 22 paragraph 89 of the Environment Act 2005.

- (i) relates to premises used by the undertaker for the purposes of or in connection with the construction, maintenance or decommissioning of the authorised project and that the nuisance is attributable to the carrying out of the authorised project in accordance with a notice served under section 60 (control of noise on construction sites), or a consent given under section 61 (prior consent for work on construction sites) of the Control of Pollution Act 1974(a); or
 - (ii) is a consequence of the construction, maintenance or decommissioning of the authorised project and that it cannot reasonably be avoided; or
- (b) the defendant shows that the nuisance—
- (i) relates to premises used by the undertaker for the purposes of or in connection with the use of the authorised project and that the nuisance is attributable to the use of the authorised project in compliance with requirement 21 (control of noise during operational phase); or
 - (ii) is a consequence of the use of the authorised project and that it cannot reasonably be avoided.

(2) Section 61(9) (of the Control of Pollution Act 1974(b) does not apply where the consent relates to the use of premises by the undertaker for purposes of or in connection with the construction, maintenance or decommissioning of the authorised project.

PART 3 STREETS

Street works

8.—(1) The undertaker may, for the purposes of the authorised project, enter on so much of any of the streets specified in Schedule 2 (streets subject to street works) as is within the Order limits and may—

- (a) break up or open the street, or any sewer, drain or tunnel under it;
- (b) tunnel or bore under the street;
- (c) place apparatus under the street;
- (d) maintain apparatus under the street or change its position; and
- (e) execute any works required for or incidental to any works referred to in sub-paragraphs (a) to (d).

(2) The authority given by paragraph (1) is a statutory right for the purposes of sections 48(3) (streets, street works and undertakers) and 51(1) (prohibition of unauthorised street works) of the 1991 Act.

(3) In this article “apparatus” has the same meaning as in Part 3 (street works in England and Wales) of the 1991 Act.

Application of the 1991 Act

9.—(1) The provisions of the 1991 Act mentioned in paragraph (2) that apply in relation to the carrying out of street works under that Act and any regulations made or code of practice issued or approved under those provisions apply (with all necessary modifications) in relation to—

- (a) the carrying out of works under article 8 (street works); and

(a) 1974 c.40. Sections 61(9) was amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990, c.25. There are other amendments to the 1974 Act which are not relevant to the Order.

(b) 1974 c.20. Sections 61(9) and 65(8) were amended by section 162 of, and paragraph 15 of Schedule 3 to, the Environmental Protection Act 1990, c.25. There are other amendments to the 1974 Act which are not relevant to the Order.

- (b) the temporary stopping up, temporary alteration or temporary diversion of a street by the undertaker under article 10 (temporary stopping up of streets),

whether or not the carrying out of the works or the stopping up, alteration or diversion constitutes street works within the meaning of that Act.

(2) The provisions of the 1991 Act^(a) are—

- (a) subject to paragraph (3), section 55 (notice of starting date of works);
- (b) section 57 (notice of emergency works);
- (c) section 60 (general duty of undertakers to co-operate);
- (d) section 68 (facilities to be afforded to street authority);
- (e) section 69 (works likely to affect other apparatus in the street);
- (f) section 76 (liability for cost of temporary traffic regulation);
- (g) section 77 (liability for cost of use of alternative route); and
- (h) all provisions of that Act that apply for the purposes of the provisions referred to in subparagraphs (a) to (g).

(3) Section 55 of the 1991 Act as applied by paragraph (2) has effect as if references in section 57 of that Act to emergency works included a reference to a stopping up, alteration or diversion (as the case may be) required in a case of emergency.

Temporary stopping up of streets

10.—(1) The undertaker, during and for the purposes of carrying out the authorised project, may temporarily stop up, alter or divert any street and may for any reasonable time—

- (a) divert the traffic or a class of traffic from the street; and
- (b) subject to paragraph (3), prevent all persons from passing along the street.

(2) Without limiting paragraph (1), the undertaker may use any street temporarily stopped up under the powers conferred by this article within the Order limits as a temporary working site.

(3) The undertaker must provide reasonable access for pedestrians going to or from premises abutting a street affected by the temporary stopping up, alteration or diversion of a street under this article if there would otherwise be no such access.

(4) Without limiting paragraph (1), the undertaker may temporarily stop up, alter or divert the streets set out in column (2) of Schedule 3 (streets to be temporarily stopped up) to the extent specified, by reference to the letters and numbers shown on the works plans, in column (3) of that schedule.

(5) The undertaker must not temporarily stop up, alter, divert or use as a temporary working site—

- (a) any street referred to in paragraph (4) without first consulting the street authority; and
- (b) any other street without the consent of the street authority, which may attach reasonable conditions to the consent.

(6) Any person who suffers loss by the suspension of any public right of way under this article is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) If a street authority fails to notify the undertaker of its decision within 28 days of receiving an application for consent under paragraph (5)(b) that street authority is deemed to have granted consent.

^(a) Sections 55, 57, 60, 68 and 69 were amended by the Traffic Management Act 2004 (c.18).

Temporary stopping up of public rights of way

11. The undertaker may, in connection with the carrying out of the authorised project, temporarily stop up each of the public rights of way specified in column (2) of Schedule 4 (public rights of way to be temporarily stopped up) to the extent specified in column (3), by reference to the letters shown on the temporary stopping up of rights of way plan.

Access to works

12.—(1) The undertaker may, for the purposes of the authorised project—

- (a) form, lay out and maintain a means of access, or improve or maintain an existing means of access, in the locations specified in columns (1) and (2) of Schedule 5 (access to works); and
- (b) with the approval of the relevant planning authority after consultation with the highway authority in accordance with requirement 11 (highway accesses), form and lay out such other means of access or improve existing means of access, at such locations within the Order limits as the undertaker reasonably requires for the purposes of the authorised project.

(2) If the relevant planning authority fails to notify the undertaker of its decision within 28 days of receiving an application for approval under paragraph (1)(b) that relevant planning authority is deemed to have granted approval.

Agreements with street authorities

13.—(1) A street authority and the undertaker may enter into agreements with respect to—

- (a) any temporary stopping up, alteration or diversion of a street authorised by this Order; or
- (b) the carrying out in the street of any of the works referred to in article 8(1) (street works).

(2) Such agreement may, without prejudice to the generality of paragraph (1)—

- (a) make provision for the street authority to carry out any function under this Order which relates to the street in question;
- (b) include an agreement between the undertaker and street authority specifying a reasonable time for the completion of the works; and
- (c) contain such terms as to payment and otherwise as the parties consider appropriate.

Power to alter layout etc. of streets

14.—(1) Subject to paragraphs (2) and (3), the undertaker may, in so far as may be expedient or necessary for the purposes of or in connection with constructing, operating and maintaining the authorised development, alter the layout of any street and, without limitation on the scope of this paragraph, the undertaker may—

- (a) alter the level or increase the width of any kerb, footway, cycle track or verge; and
- (b) make and maintain passing place(s).

(2) The undertaker must restore any street that has been temporarily altered under this article to the reasonable satisfaction of the street authority.

(3) The powers conferred by paragraph (1) must not be exercised without the consent of the street authority.

(4) Paragraphs (2) and (3) do not apply where the undertaker is the street authority for a street in which the works are being carried out.

PART 4

SUPPLEMENTAL POWERS

Discharge of water

15.—(1) Subject to paragraphs (3) and (4) below the undertaker may use any watercourse or any public sewer or drain for the drainage of water in connection with the carrying out or maintenance of the authorised project and for that purpose may inspect, lay down, take up and alter pipes and may, on any land within the Order limits, make openings into, and connections with, the watercourse, public sewer or drain.

(2) Any dispute arising from the making of connections to or the use of a public sewer or drain by the undertaker pursuant to paragraph (1) is determined as if it were a dispute under section 106 of the Water Industry Act 1991(a) (right to communicate with public sewers).

(3) The undertaker must not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to such terms and conditions as that person may reasonably impose, but must not be unreasonably withheld.

(4) The undertaker must not carry out any works to any public sewer or drain pursuant to paragraph (1) except—

- (a) in accordance with plans approved by the person to whom the sewer or drain belongs, but such approval must not be unreasonably withheld; and
- (b) where that person has been given the opportunity to supervise the making of the opening.

(5) The undertaker must not, in carrying out or maintaining works pursuant to this article damage or interfere with the bed or banks of any watercourse forming part of a main river.

(6) The undertaker must take such steps as are reasonably practicable to secure that any water discharged into a watercourse or public sewer or drain pursuant to this article is as free as may be practicable from gravel, soil or other solid substance, oil or matter in suspension.

(7) This article does not authorise the entry into controlled waters of any matter whose entry or discharge into controlled waters is prohibited by regulation 12 (requirement for a permit) of the Environmental Permitting (England and Wales) Regulations 2016(b).

(8) In this article—

- (a) “public sewer or drain” means a sewer or drain which belongs to a sewerage undertaker, the Environment Agency, an internal drainage board or a local authority; and
- (b) other expressions, excluding watercourse, used both in this article and in the Environmental Permitting (England and Wales) Regulations 2016 have the same meaning as in those Regulations.

(9) If a person who receives an application for consent or approval fails to notify the undertaker of a decision within 28 days of receiving an application for consent under paragraph (3) or approval under paragraph (4)(a) that person is deemed to have granted consent or given approval, as the case may be.

Protective work to buildings

16.—(1) Subject to the following provisions of this article, the undertaker may at its own expense carry out such protective works to any building lying within the Order limits as the undertaker considers necessary or expedient.

(2) Protective works may be carried out—

-
- (a) 1991 c.56. Section 106 was amended by sections 43(2) and 35(8)(a) and paragraph 1 of Schedule 2 to the Competition and Service (Utilities) Act 1992 (c.43) and sections 99(2), (4), (5)(a), (5)(b), (5)(c) and 36(2) of the Water Act 2003 (c.37) and section 32, Schedule 3, paragraph 16(1) of the Flood and Water Management Act 2010 c.29.
 - (b) S.I. 2016/1154.

- (a) at any time before or during the carrying out in the vicinity of the building of any part of the authorised project; or
- (b) after the completion of that part of the authorised project in the vicinity of the building at any time up to the end of the period of five years beginning with the day on which that part of the authorised project first becomes operational.

(3) For the purpose of determining how the powers under this article are to be exercised, the undertaker may enter and survey any building falling within paragraph (1) and any land within its curtilage.

(4) For the purpose of carrying out protective works under this article to a building, the undertaker may (subject to paragraphs (5) and (6))—

- (a) enter the building and any land within its curtilage; and
- (b) where the works cannot be carried out reasonably conveniently without entering land that is adjacent to the building but outside its curtilage, enter the adjacent land (but not any building erected on it).

(5) Before exercising—

- (a) a power under paragraph (1) to carry out protective works to a building;
- (b) a power under paragraph (3) to enter a building and land within its curtilage;
- (c) a power under paragraph (4)(a) to enter a building and land within its curtilage; or
- (d) a power under paragraph (4)(b) to enter land,

the undertaker must, except in the case of emergency, serve on the owners and occupiers of the building or land not less than 14 days' notice of its intention to exercise the power and, in a case falling within sub-paragraph (a), (c) or (d), specifying the protective works proposed to be carried out.

(6) Where a notice is served under paragraph (5)(a), (c) or (d), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question of whether it is necessary or expedient to carry out the protective works or to enter the building or land to be referred to arbitration under article 37 (arbitration).

(7) The undertaker must compensate the owners and occupiers of any building or land in relation to which powers under this article have been exercised for any loss or damage arising to them by reason of the exercise of the powers.

(8) Where—

- (a) protective works are carried out under this article to a building; and
- (b) within the period of five years beginning with the day on which the part of the authorised project carried out in the vicinity of the building first becomes operational it appears that the protective works are inadequate to protect the building against damage caused by the carrying out or use of that part of the authorised project,

the undertaker must compensate the owners and occupiers of the building for any loss or damage sustained by them.

(9) Nothing in this article relieves the undertaker from any liability to pay compensation under section 152 of the 2008 Act (compensation in case where no right to claim in nuisance).

(10) Any compensation payable under paragraph (7) or (8) must be determined, in case of dispute, under Part 1 of the 1961 Act (determination of questions of disputed compensation).

(11) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto, or possession of land under this article to the same extent as it applies in respect of the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(12) In this article “protective works”, in relation to a building, means—

- (a) underpinning, strengthening and any other works the purpose of which is to prevent damage that may be caused to the building by the carrying out, maintenance or use of the authorised project; and
- (b) any works the purpose of which is to remedy any damage that has been caused to the building by the carrying out, maintenance or use of the authorised project.

Authority to survey and investigate the land onshore

17.—(1) The undertaker may for the purposes of this Order enter on any land shown within the Order limits or which may be affected by the authorised project and—

- (a) survey or investigate the land;
- (b) without prejudice to the generality of sub-paragraph (a), make trial holes in such positions on the land as the undertaker thinks fit to investigate the nature of the surface layer and subsoil and remove soil samples;
- (c) without prejudice to the generality of sub-paragraph (a), carry out ecological or archaeological investigations on such land, including the digging of trenches; and
- (d) place on, leave on and remove from the land apparatus for use in connection with the survey and investigation of land and making of trial holes.

(2) No land may be entered or equipment placed or left on or removed from the land under paragraph (1) unless at least 14 days' notice has been served on every owner or occupier of the land.

(3) Any person entering land under this article on behalf of the undertaker—

- (a) must, if so required on entering the land, produce written evidence of their authority to do so; and
- (b) may take with them such vehicles and equipment as are necessary to carry out the survey or investigation or to make the trial holes.

(4) No trial holes may be made under this article—

- (a) in land forming a railway without the consent of Network Rail^(a);
- (b) in land held by or in right of the Crown without the consent of the Crown;
- (c) in land located within the highway boundary without the consent of the highway authority; or
- (d) in a private street without the consent of the street authority,

but such consent must not be unreasonably withheld or delayed.

(5) The undertaker must compensate the owners and occupiers of the land for any loss or damage arising by reason of the exercise of the authority conferred by this article, such compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(6) If either a highway authority or a street authority which receives an application for consent fails to notify the undertaker of its decision within 28 days of receiving the application for consent—

- (a) under paragraph (4)(c) in the case of a highway authority; or
- (b) under paragraph (4)(d) in the case of a street authority;

that authority is deemed to have granted consent.

(7) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the entry onto, or possession of land under this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act.

(a) As defined in Part 5 of Schedule 9 (Protection for Network Rail Infrastructure Limited).

PART 5

POWERS OF ACQUISITION

Compulsory acquisition of land

18.—(1) The undertaker may acquire compulsorily so much of the Order land as is required for the authorised project or to facilitate, or is incidental, to it.

(2) This article is subject to paragraph (2) of article 20 (compulsory acquisition of rights) and article 26 (temporary use of land for carrying out the authorised project).

Time limit for exercise of authority to acquire land compulsorily

19.—(1) After the end of the period of 7 years beginning on the day on which this Order is made—

- (a) no notice to treat is to be served under Part 1 (determination of questions of disputed compensation) of the 1965 Act; and
- (b) no declaration is to be executed under section 4 (execution of declaration) of the 1981 Act as applied by article 22 (application of the 1981 Act).

(2) The authority conferred by article 26 (temporary use of land for carrying out the authorised project) ceases at the end of the period referred to in paragraph (1), except that nothing in this paragraph prevents the undertaker remaining in possession of land after the end of that period, if the land was entered and possession was taken before the end of that period.

Compulsory acquisition of rights

20.—(1) Subject to paragraph (2), the undertaker may acquire compulsorily such rights or impose restrictive covenants over the Order land as may be required for any purpose for which that land may be acquired under article 18 (compulsory acquisition of land), by creating them as well as by acquiring rights already in existence.

(2) Subject to the provisions of this paragraph, article 21 (private rights) and article 28 (statutory undertakers), in the case of the Order land specified in column (1) of Schedule 6 (land in which only new rights etc. may be acquired) the undertaker's powers of compulsory acquisition are limited to the acquisition of such new rights and the imposition of restrictive covenants for the purpose specified in relation to that land in column (2) of that Schedule.

(3) Subject to section 8 (other provisions as to divided land) of the 1965 Act, and Schedule 2A (counter-notice requiring purchase of land) (as substituted by paragraph 10 of Schedule 7 (modification of compensation and compulsory purchase enactments for the creation of new rights)), where the undertaker creates a new interest or acquires an existing right over land or imposes a restrictive covenant under paragraph (1), the undertaker is not required to acquire a greater interest in that land.

(4) Schedule 7 has effect for the purpose of modifying the enactments relating to compensation and the provisions of the 1965 Act in their application in relation to the compulsory acquisition under this article of a right over land by the creation of a new right or the imposition of restrictive covenants.

(5) In any case where the acquisition of new rights or imposition of a restriction under paragraph (1) or (2) is required for the purpose of diverting, replacing or protecting apparatus of a statutory undertaker, the undertaker may, with the consent of the Secretary of State, transfer the power to acquire such rights to the statutory undertaker in question.

(6) The exercise by a statutory undertaker of any power in accordance with a transfer under paragraph (5) is subject to the same restrictions, liabilities and obligations as would apply under this Order if that power were exercised by the undertaker.

Private Rights

21.—(1) Subject to the provisions of this article, all private rights or restrictive covenants over land subject to compulsory acquisition under article 18 (compulsory acquisition of land) cease to have effect in so far as their continuance would be inconsistent with the exercise of the powers under article 18—

- (a) as from the date of acquisition of the land by the undertaker, whether compulsorily or by agreement; or
- (b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act (power of entry),

whichever is the earliest.

(2) Subject to the provisions of this article, all private rights or restrictive covenants over land subject to the compulsory acquisition of rights or the imposition of restrictive covenants under article 20 (compulsory acquisition of rights) cease to have effect in so far as their continuance would be inconsistent with the exercise of the right or compliance with the restrictive covenant—

- (a) as from the date of the acquisition of the right or the imposition of the restrictive covenant by the undertaker (whether the right is acquired compulsorily, by agreement or through the grant of lease of the land by agreement); or
- (b) on the date of entry on the land by the undertaker under section 11(1) of the 1965 Act in pursuance of the right,

whichever is the earliest.

(3) Subject to the provisions of this article, all private rights or restrictive covenants over land of which the undertaker takes temporary possession under this Order are suspended and unenforceable, in so far as their continuance would be inconsistent with the purpose for which temporary possession is taken, for as long as the undertaker remains in lawful possession of the land.

(4) Any person who suffers loss by the extinguishment or suspension of any private right or restrictive covenants under this article is entitled to compensation in accordance with the terms of section 152 of the 2008 Act to be determined, in case of dispute, under Part 1 of the 1961 Act (determination of questions of disputed compensation).

(5) This article does not apply in relation to any right to which section 138 of the 2008 Act (extinguishment of rights, and removal of apparatus, of statutory undertakers etc.) or article 28 (statutory undertakers) applies.

(6) Paragraphs (1) to (3) have effect subject to—

- (a) any notice given by the undertaker before—
 - (i) the completion of the acquisition of the land or the acquisition of rights or the imposition of restrictive covenants over or affecting the land;
 - (ii) the undertaker's appropriation of the land,
 - (iii) the undertaker's entry onto the land, or
 - (iv) the undertaker's taking temporary possession of the land,that any or all of those paragraphs do not apply to any right specified in the notice; or
- (b) any agreement made at any time between the undertaker and the person in or to whom the right in question is vested or belongs.

(7) If an agreement referred to in paragraph (6)(b)—

- (a) is made with a person in or to whom the right is vested or belongs; and
- (b) is expressed to have effect also for the benefit of those deriving title from or under that person,

the agreement is effective in respect of the persons so deriving title, whether the title was derived before or after the making of the agreement.

(8) Reference in this article to private rights over land includes reference to any trusts or incidents to which the land is subject.

Application of the 1981 Act

22.—(1) The 1981 Act applies as if this Order were a compulsory purchase order.

(2) The 1981 Act, as applied by paragraph (1), has effect with the following modifications.

(3) In section 1 (application of act), for subsection 2, substitute—

“(2) This section applies to any Minister, any local or other public authority or any other body or person authorised to acquire land by means of a compulsory purchase order.”

(4) In section 5(2) (earliest date for execution of declaration) omit the words from “, and this subsection” to the end.

(5) Section 5A (time limit for general vesting declaration)(a) is omitted.

(6) In section 5B (extension of time limit during challenge)(b) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order) substitute “section 118 of the 2008 Act (legal challenges relating to applications for orders granting development consent) the seven year period mentioned in article 19 (time limit for exercise of authority to acquire land compulsorily) of the Hornsea Three Offshore Wind Farm Order 2020”.

(7) In section 6 (notices after execution of declaration), in subsection (1)(b) for “section 15 of, or paragraph 6 of Schedule 1 to, the Acquisition of Land Act 1981” substitute “section 134 (notice of authorisation of compulsory acquisition) of the Planning Act 2008”.

(8) In section 7 (constructive notice to treat), in subsection (1)(a), omit the words “(as modified by section 4 of the Acquisition of Land Act 1981)”.

(9) In Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration)(c), for paragraph 1(2) substitute—

“(2) But see article 23(1) (acquisition of subsoil only) of the Hornsea Three Offshore Wind Farm Order 2020, which excludes the acquisition of subsoil only from this Schedule.”

(10) References to the 1965 Act in the 1981 Act must be construed as references to the 1965 Act as applied by section 125 (application of compulsory acquisition provisions) of the 2008 Act (and as modified by article 24 (modification of Part 1 of the 1965 Act) to the compulsory acquisition of land under this Order.

Acquisition of subsoil only

23.—(1) The undertaker may acquire compulsorily so much of, or such rights in, the subsoil of the land referred to in paragraph (1) of article 18 (compulsory acquisition of land) or article 20 (compulsory acquisition of rights) as may be required for any purpose for which that land may be acquired under that provision instead of acquiring the whole of the land.

(2) Where the undertaker acquires any part of, or rights in, the subsoil of land under paragraph (1), the undertaker is not required to acquire an interest in any other part of the land.

(3) The following do not apply in connection with the exercise of the power under paragraph (1) in relation to subsoil only—

(a) Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act;

(b) Schedule A1 (counter-notice requiring purchase of land not in general vesting declaration) to the 1981 Act; and

(a) Inserted by section 182(2) of the Housing and Planning Act 2016 (c.22).

(b) Inserted by section 202(2) of the Housing and Planning Act 2016 (c.22).

(c) Inserted by paragraph 6 of Schedule 18 to the Housing and Planning Act 2016 (c.22).

(c) Section 153(4A) (reference of objection to Upper Tribunal: general) of the Town and Country Planning Act 1990.

(4) Paragraphs (2) and (3) do not apply where the undertaker acquires a cellar, vault, arch or other construction forming part of a house, building or manufactory.

Modification of Part 1 of the 1965 Act

24.—(1) Part 1 (compulsory purchase under Acquisition of Land Act of 1946) of the 1965 Act, as applied to this Order by section 125 (application of compulsory acquisition provisions) of the 2008 Act, is modified as follows.

(2) In section 4A(1) (extension of time limit during challenge)(a) for “section 23 of the Acquisition of Land Act 1981 (application to High Court in respect of compulsory purchase order), the three year period mentioned in section 4” substitute “section 118 of the 2008 Act (legal challenges relating to applications for orders granting development consent), the seven year period mentioned in article 19 (time limit for exercise of authority to acquire land compulsorily) of the Hornsea Three Offshore Wind Farm Order 2020”.

(3) In section 11A (powers of entry: further notice of entry)(b)—

(a) in subsection (1)(a), after “land” insert “under that provision”;

(b) in subsection (2), after “land” insert “under that provision”.

(4) In section 22(2) (interests omitted from purchase), for “section 4 of this Act” substitute “article 19 (time limit for exercise of authority to acquire land compulsorily) of the Hornsea Three Offshore Wind Farm Order 2020”.

(5) In Schedule 2A (counter-notice requiring purchase of land not in notice to treat)(c)—

(a) for paragraphs 1(2) and 14(2) substitute—

“(2) But see article 23(3) (acquisition of subsoil only) of the Hornsea Three Offshore Wind Farm Order 2020, which excludes the acquisition of subsoil only from this Schedule”
; and

(b) at the end insert—

“PART 4

INTERPRETATION

30. In this Schedule, references to entering on and taking possession of land do not include doing so under article 16 (protective work to buildings), article 26 (temporary use of land for carrying out the authorised development) or article 27 (temporary use of land for maintaining the authorised development) of the Hornsea Three Wind Farm Order 2020.”

Rights under or over streets

25.—(1) The undertaker may enter on and appropriate so much of the subsoil of or air-space over any street within the Order limits as may be required for the purposes of the authorised project and may use the subsoil or air-space for those purposes or any other purpose ancillary to the authorised project.

(2) Subject to paragraph (3), the undertaker may exercise any power conferred by paragraph (1) in relation to a street without being required to acquire any part of the street or any easement or right in the street.

(3) Paragraph (2) does not apply in relation to—

(a) Inserted by section 202(1) of the Housing and Planning Act 2016 (c.22).

(b) Inserted by section 186(3) of the Housing and Planning Act 2016 (c.22).

(c) Inserted by schedule 17(1) paragraph 3 to the Housing and Planning Act 2016 (c.22).

- (a) any subway or underground building; or
- (b) any cellar, vault, arch or other construction in, on or under a street which forms part of a building fronting onto the street.

(4) Subject to paragraph (5), any person who is an owner or occupier of land appropriated under paragraph (1) without the undertaker acquiring any part of that person's interest in the land, and who suffers loss as a result, is entitled to compensation to be determined, in case of dispute, under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(5) Compensation is not payable under paragraph (4) to any person who is an undertaker to whom section 85 of the 1991 Act (sharing of cost of necessary measures) applies in respect of measures of which the allowable costs are to be borne in accordance with that section.

Temporary use of land for carrying out the authorised project

26.—(1) The undertaker may, in connection with the carrying out of the authorised project—

- (a) enter on and take temporary possession of—
 - (i) the land specified in columns (1) and (2) of Schedule 8 (land of which temporary possession may be taken) for the purpose specified in relation to that land in column (3) of that Schedule; and
 - (ii) any other Order land in respect of which no notice of entry has been served under section 11 (powers of entry) of the 1965 Act (other than in connection with the acquisition of rights only) and no declaration has been made under section 4 (execution of declaration) of the 1981 Act;
- (b) remove any buildings, agricultural plant and apparatus, drainage, fences, debris and vegetation from that land;
- (c) construct temporary works (including the provision of means of access), haul roads, security fencing, bridges, structures and buildings on that land;
- (d) use the land for the purposes of a working site with access to the working site in connection with the authorised project;
- (e) construct any works, or use the land, as specified in relation to that land in column 3 of Schedule 8, or any mitigation works;
- (f) construct such works on that land as are mentioned in Part 1 of Schedule 1 (authorised development); and
- (g) carry out mitigation works required pursuant to the requirements in Schedule 1.

(2) Not less than 14 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(3) The undertaker must not remain in possession of any land under this article for longer than reasonably necessary and in any event must not, without the agreement of the owners of the land, remain in possession of any land under this article

- (a) in the case of land specified in paragraph (1)(a)(i) after the end of the period of one year beginning with the date of completion of the part of the authorised project specified in relation to that land in column (4) of Schedule 8; or
- (b) in the case of land specified in paragraph (1)(a)(ii) after the end of the period of one year beginning with the date of completion of the part of the authorised project for which temporary possession of the land was taken unless the undertaker has, before the end of that period, served a notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act in relation to that land.

(4) Unless the undertaker has served notice of entry under section 11 of the 1965 Act or made a declaration under section 4 of the 1981 Act or otherwise acquired the land or rights over land subject to temporary possession, the undertaker must before giving up possession of land of which temporary possession has been taken under this article, remove all works and restore the land to the reasonable satisfaction of the owners of the land; but the undertaker is not required to—

- (a) replace any building, structure, drain or electric line removed under this article;
- (b) remove any drainage works installed by the undertaker under this article;
- (c) remove any new road surface or other improvements carried out under this article to any street specified in Schedule 2 (streets subject to street works); or
- (d) restore the land on which any works have been carried out under paragraph (1)(g) insofar as the works relate to mitigation works identified in the environmental statement or required pursuant to the requirements in Schedule 1.

(5) The undertaker must pay compensation to the owners and occupiers of land which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of any power conferred by this article.

(6) Any dispute as to a person's entitlement to compensation under paragraph (5), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(7) Nothing in this article affects any liability to pay compensation under section 152 of the 2008 Act (compensation in case where no right to claim in nuisance) or under any other enactment in respect of loss or damage arising from the carrying out of the authorised project, other than loss or damage for which compensation is payable under paragraph (5).

(8) The undertaker may not compulsorily acquire under this Order the land referred to in paragraph (1)(a)(i) except that the undertaker is not precluded from—

- (a) acquiring new rights or imposing restrictive covenants over any part of that land under article 20 (compulsory acquisition of rights) to the extent that such land is listed in column (1) of Schedule 6 (land in which only new rights etc. may be acquired); or
- (b) acquiring any part of the subsoil (or rights in the subsoil) of that land under article 23 (acquisition of subsoil only).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 (application of compulsory acquisition provisions) of the 2008 Act (

Temporary use of land for maintaining the authorised project

27.—(1) Subject to paragraph (2), at any time during the maintenance period relating to any part of the authorised project, the undertaker may—

- (a) enter on and take temporary possession of any land within the Order land if such possession is reasonably required for the purpose of maintaining the authorised project; and
- (b) construct such temporary works (including the provision of means of access) and buildings on the land as may be reasonably necessary for that purpose.

(2) Paragraph (1) does not authorise the undertaker to take temporary possession of—

- (a) any house or garden belonging to a house; or
- (b) any building (other than a house) if it is for the time being occupied.

(3) Not less than 28 days before entering on and taking temporary possession of land under this article the undertaker must serve notice of the intended entry on the owners and occupiers of the land.

(4) The undertaker may only remain in possession of land under this article for so long as may be reasonably necessary to carry out the maintenance of the part of the authorised project for which possession of the land was taken.

(5) Before giving up possession of land of which temporary possession has been taken under this article, the undertaker must remove all temporary works and restore the land to the reasonable satisfaction of the owners of the land.

(6) The undertaker must pay compensation to the owners and occupiers of land of which temporary possession is taken under this article for any loss or damage arising from the exercise in relation to the land of the provisions of this article.

(7) Any dispute as to a person's entitlement to compensation under paragraph (6), or as to the amount of the compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(8) Nothing in this article affects any liability to pay compensation under section 152 (compensation in case where no right to claim in nuisance) of the 2008 Act or under any other enactment in respect of loss or damage arising from the maintenance of the authorised project, other than loss or damage for which compensation is payable under paragraph (6).

(9) Where the undertaker takes possession of land under this article, the undertaker is not required to acquire the land or any interest in it.

(10) Section 13 (refusal to give possession to acquiring authority) of the 1965 Act applies to the temporary use of land pursuant to this article to the same extent as it applies to the compulsory acquisition of land under this Order by virtue of section 125 of the 2008 Act (application of compulsory acquisition provisions).

(11) In this article "the maintenance period", in relation to any phase of the authorised project as approved under requirement 6, means the period of 5 years beginning with the date on which a phase of the authorised project first exports electricity to the national electricity transmission network except where the authorised development consists of the maintenance of any tree or shrub pursuant to requirement 9 where "the maintenance period" means a period of 10 years beginning with the date on which that tree or shrub is first planted.

Statutory undertakers

28. Subject to the provisions of Schedule 9 (protective provisions) the undertaker may—

- (a) acquire compulsorily, or acquire new rights or impose restrictive covenants over, the land belonging to statutory undertakers shown on the land plans within the Order land; and
- (b) extinguish the rights of, remove, relocate the rights of or reposition the apparatus belonging to statutory undertakers over or within the Order land.

Recovery of costs of new connections

29.—(1) Where any apparatus of a public utility undertaker or of a public communications provider is removed under article 28 (statutory undertakers) any person who is the owner or occupier of premises to which a supply was given from that apparatus is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of effecting a connection between the premises and any other apparatus from which a supply is given.

(2) Paragraph (1) does not apply in the case of the removal of a public sewer but where such a sewer is removed under article 28, any person who is—

- (a) the owner or occupier of premises the drains of which communicated with that sewer; or
- (b) the owner of a private sewer which communicated with that sewer,

is entitled to recover from the undertaker compensation in respect of expenditure reasonably incurred by that person, in consequence of the removal, for the purpose of making the drain or sewer belonging to that person communicate with any other public sewer or with a private sewage disposal plant.

(3) This article does not have effect in relation to apparatus to which Part 3 (street works in England and Wales) of the 1991 Act applies.

(4) In this paragraph—

“public communications provider” has the same meaning as in section 151(1) of the Communications Act 2003(a); and

“public utility undertaker” has the same meaning as in the 1980 Act.

PART 6 OPERATIONS

Operation of generating station

30.—(1) The undertaker is hereby authorised to operate the generating station comprised in the authorised project.

(2) This article does not relieve the undertaker of any requirement to obtain any permit or licence under any other legislation that may be required from time to time to authorise the operation of an electricity generating station.

Deemed marine licences under the 2009 Act

31. The deemed marine licences set out in Schedules 11 (deemed marine licence under the 2009 Act – generation assets) and 12 (deemed marine licence under the 2009 Act – transmission assets) respectively, are deemed to be granted to the undertaker under Part 4 (marine licensing) of the 2009 Act for the licensed marine activities set out in Part 1, and subject to the conditions set out in Part 2 of each of those Schedules.

PART 7 MISCELLANEOUS AND GENERAL

Application of landlord and tenant law

32.—(1) This article applies to—

- (a) any agreement for leasing to any person the whole or any part of the authorised project or the right to operate the same; and
- (b) any agreement entered into by the undertaker with any person for the construction, maintenance, use or operation of the authorised project, or any part of it,

so far as any such agreement relates to the terms on which any land which is the subject of a lease granted by or under that agreement is to be provided for that person’s use.

(2) No enactment or rule of law regulating the rights and obligations of landlords and tenants prejudices the operation of any agreement to which this article applies.

(3) Accordingly, no such enactment or rule of law applies in relation to the rights and obligations of the parties to any lease granted by or under any such agreement so as to—

- (a) exclude or in any respect modify any of the rights and obligations of those parties under the terms of the lease, whether with respect to the termination of the tenancy or any other matter;
- (b) confer or impose on any such party any right or obligation arising out of or connected with anything done or omitted on or in relation to land which is the subject of the lease, in addition to any such right or obligation provided for by the terms of the lease; or
- (c) restrict the enforcement (whether by action for damages or otherwise) by any party to the lease of any obligation of any other party under the lease.

(a) 2003 c.21.

Operational land for purposes of the 1990 Act

33. Development consent granted by this Order is treated as specific planning permission for the purposes of section 264(3)(a) of the 1990 Act (cases in which land is to be treated as not being operational land).

Felling or lopping of trees and removal of hedgerows

34.—(1) Subject to article 35 (trees subject to tree preservation orders) the undertaker may fell or lop or cut back to roots of any tree or shrub within or overhanging land within the Order limits or near any part of the authorised project if the undertaker reasonably believes it to be necessary to do so to prevent the tree or shrub from obstructing or interfering with onshore site preparation works, the construction, maintenance or operation of the authorised project or any apparatus used in connection with the authorised project.

(2) In carrying out any activity authorised by paragraph (1), the undertaker must not do any unnecessary damage to any tree or shrub and must pay compensation to any person for any loss or damage arising from such activity.

(3) Any dispute as to a person's entitlement to compensation under paragraph (2), or as to the amount of compensation, must be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(4) The undertaker may, for the purpose of the authorised project—

- (a) subject to paragraph (2) above, remove any hedgerows within the Order limits and specified in Schedule 10, Part 1 (removal of hedgerows) that may be required for the purposes of carrying out the authorised project; and
- (b) remove the important hedgerows as are within the Order limits and specified in Schedule 10, Part 2 (removal of important hedgerows).

(5) In this article “hedgerow” and “important hedgerow” have the same meaning as in the Hedgerows Regulations 1997(a).

Trees subject to tree preservation orders

35.—(1) Subject to paragraph (2), the undertaker must not fell or lop or cut back the roots of any tree within or overhanging land which is the subject of a tree preservation order.

(2) The undertaker may fell or lop any tree within or overhanging land within the Order limits subject to a tree preservation order which was made before and after 14 May 2018 or cut back its roots, if it reasonably believes it to be necessary to do so in order to prevent the tree from obstructing or interfering with onshore site preparation works the construction, maintenance or operation of the authorised project or any apparatus used in connection with the authorised project.

(3) In carrying out any activity authorised by paragraph (1)—

- (a) the undertaker shall do no unnecessary damage to any tree and shall pay compensation to any person for any loss or damage arising from such activity; and
- (b) the duty contained in section 206(1) (replacement of trees) of the 1990 Act shall not apply.

(4) The authority given by paragraph (1) shall constitute a deemed consent under the relevant tree preservation order.

(5) Any dispute as to a person's entitlement to compensation under paragraph (3), or as to the amount of compensation, shall be determined under Part 1 (determination of questions of disputed compensation) of the 1961 Act.

(a) S.I.1997/1160.

Certification of plans and documents, etc.

36.—(1) The undertaker must, as soon as practicable after the making of this Order, submit to the Secretary of State copies of—

- (a) the book of reference;
- (b) design objectives and principles;
- (c) the Development Principles;
- (d) the environmental statement;
- (e) the location plan;
- (f) the land plans;
- (g) the offshore Order limits and grid coordinates plan;
- (h) the onshore Order limits plan;
- (i) the works plans;
- (j) the access to works plan;
- (k) the streets plan;
- (l) the public rights of way plan;
- (m) the tree preservation order and hedgerow plan;
- (n) the crown land plans – onshore and offshore;
- (o) the onshore limits of deviation plan;
- (p) the outline construction management plan;
- (q) the outline construction traffic management plan;
- (r) the outline code of construction practice;
- (s) the outline ecological management plan;
- (t) the outline landscape plan;
- (u) the outline onshore written scheme of investigation;
- (v) the in-principle monitoring plan;
- (w) the outline offshore written scheme of investigation;
- (x) the outline fisheries coexistence and liaison plan;
- (y) the in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan;
- (z) the Markham's Triangle exclusion zone plan;
- (aa) the kittiwake compensation plan; and
- (bb) the sandbanks compensation strategy.

(2) A plan or document so certified is admissible in any proceedings as evidence of the contents of the document of which it is a copy.

(3) Where a plan or document certified under paragraph (1)—

- (a) refers to a provision of this Order (including any specified requirement) when it was in draft form; and
- (b) identifies that provision by number, or combination of numbers and letters, which is different from the number, or combination of numbers and letters by which the corresponding provision of this Order is identified in the Order as made;

the reference in the plan or document concerned must be construed for the purposes of this Order as referring to the provision (if any) corresponding to that provision in the Order as made.

Arbitration

37.—(1) Any difference under any provision of this Order, unless otherwise provided for, shall be referred to and settled in arbitration in accordance with the rules at Schedule 13 (arbitration rules) of this Order, by a single arbitrator to be agreed upon by the parties, within 14 days of receipt of the notice of arbitration, or if the parties fail to agree within the time period stipulated, to be appointed on application of either party (after giving written notice to the other) by the Secretary of State.

(2) For the avoidance of doubt, any matter for which the consent or approval of the Secretary of State or the Marine Management Organisation is required under any provision of this Order shall not be subject to arbitration.

Requirements, appeals, etc.

38.—(1) Sub-section (1) of section 78 (right to appeal against planning decisions and failure to take such decision) of the 1990 Act applies to the development consent granted by this Order and to the requirements except that it is modified so as to read for the purposes of this Order only as follows—

(a) after “local planning authority” insert “or Secretary of State”

(b) after subsection (b) insert the following—

“refuse or fails to determine an application for any consent, agreement or approval of that authority required by a requirement imposed on a grant of development consent or contained in a development consent order, or grant it subject to conditions; or”

(c) after Sub-section (1), insert the following—

“(1A) Where the appeal under sub-section (1) relates to a decision by the Secretary of State, the appeal shall be decided by a Secretary of State who would not be responsible for determining an application for development consent with the subject matter of the Hornsea Three Offshore Wind Farm Order 2020 if section 103(1) of the 2008 Act applied.”

(2) Sections 78 and 79 (determination of appeals) of the 1990 Act have effect in relation to any appeal under the terms of this article except that the Secretary of State in question is the Secretary of State who would be responsible for determining an application for development consent with the subject matter of this Order if section 103(1) of the 2008 Act applied.

(3) The terms of any development order, and other rules and regulations which apply to applications pursuant to conditions or the subject matter of section 78 of the 1990 Act apply, insofar as they are not inconsistent with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 and any other orders, rules or regulations made under the 2008 Act, to any application or appeal made under the requirements specified in paragraph (1).

Abatement of works abandoned or decayed

39. Where Work Nos 1, 2 or 3 or all of them or any part of them, is abandoned or allowed to fall into decay the Secretary of State may, following consultation with the undertaker, by notice in writing require the undertaker at its own expense either to repair, make safe and restore one or any of those Works, or any relevant part of them, or to remove them and, without prejudice to any notice served under section 105(2) of the 2004 Act^(a) restore the site to a safe and proper condition, to such an extent and within such limits as may be specified in the notice.

Saving provisions for Trinity House

40. Nothing in this Order prejudices or derogates from any of the rights, duties or privileges of Trinity House.

(a) Section 105(2) was substituted by section 69(3) of the Energy Act 2008 (c.32).

Crown rights

41.—(1) Nothing in this Order affects prejudicially any estate, right, power, privilege, authority or exemption of the Crown and in particular, nothing in this Order authorises the undertaker or any licensee to take, use, enter upon or in any manner interfere with any land or rights of any description (including any portion of the shore or bed of the sea or any river, channel, creek, bay or estuary)—

- (a) belonging to Her Majesty in right of the Crown and forming part of The Crown Estate without the consent in writing of the Crown Estate Commissioners;
- (b) belonging to Her Majesty in right of the Crown and not forming part of The Crown Estate without the consent in writing of the government department having the management of that land; or
- (c) belonging to a government department or held in trust for Her Majesty for the purposes of a government department without the consent in writing of that government department.

(2) Paragraph (1) does not apply to the exercise of any right under this Order for the compulsory acquisition of an interest in any Crown land (as defined in the 2008 Act) which is for the time being held otherwise than by or on behalf of the Crown.

(3) A consent under paragraph (1) may be given unconditionally or subject to terms and conditions; and is deemed to have been given in writing where it is sent electronically.

Protective provisions

42. Schedule 9 (protective provisions) has effect.

Funding

43.—(1) The undertaker must not exercise the powers conferred by the provisions referred to in paragraph (2) in relation to any land unless it has first put in place either—

- (a) a guarantee and the amount of that guarantee approved by the Secretary of State in respect of the liabilities of the undertaker to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land; or
- (b) an alternative form of security and the amount of that security for that purpose approved by the Secretary of State in respect of the liabilities of the undertaker to pay compensation under this Order in respect of the exercise of the relevant power in relation to that land.

(2) The provisions are—

- (a) article 18 (compulsory acquisition of land);
- (b) article 20 (compulsory acquisition of rights);
- (c) article 21 (private rights);
- (d) article 23 (acquisition of subsoil only);
- (e) article 25 (rights under or over streets);
- (f) article 26 (temporary use of land for carrying out the authorised project);
- (g) article 27 (temporary use of land for maintaining the authorised project); and
- (h) article 28 (statutory undertakers).

(3) A guarantee or alternative form of security given in respect of any liability of the undertaker to pay compensation under this Order is to be treated as enforceable against the guarantor or person providing the alternative form of security by any person to whom such compensation is payable and must be in such a form as to be capable of enforcement by such a person.

(4) Nothing in this article requires a guarantee or alternative form of security to be in place for more than 15 years after the date on which the relevant power is exercised.

Service of notices

44.—(1) A notice or other document required or authorised to be served for the purposes of this Order may be served—

- (a) by post;
- (b) by delivering it to the person on whom it is to be served or to whom it is to be given or supplied; or
- (c) with the consent of the recipient and subject to paragraphs (6) to (8), by electronic transmission.

(2) Where the person on whom a notice or other document to be served for the purposes of this Order is a body corporate, the notice or document is duly served if it is served on the secretary or clerk of that body.

(3) For the purposes of section 7 of the Interpretation Act 1978^(a) (references to service by post) as it applies for the purposes of this article, the proper address of any person in relation to the service on that person of a notice or document under paragraph (1) is, if that person has given an address for service, that address and otherwise—

- (a) in the case of the secretary or clerk of that body corporate, the registered or principal office of that body; and
- (b) in any other case, the last known address of that person at that time of service.

(4) Where for the purposes of this Order a notice or other document is required or authorised to be served on a person as having an interest in, or as the occupier of, land and the name or address of that person cannot be ascertained after reasonable enquiry, the notice may be served by—

- (a) addressing it to that person by the description of “owner”, or as the case may be “occupier” of the land (describing it); and
- (b) either leaving it in the hands of the person who is or appears to be resident or employed on the land or leaving it conspicuously affixed to some building or object on or near the land.

(5) Where a notice or other document required to be served or sent for the purposes of this Order is served or sent by electronic transmission the requirement is to be taken to be fulfilled only where—

- (a) the recipient of the notice or other document to be transmitted has given consent to the use of electronic transmission in writing or by electronic transmission;
- (b) the notice or document is capable of being accessed by the recipient;
- (c) the notice or document is legible in all material respects; and
- (d) in a form sufficiently permanent to be used for subsequent reference.

(6) Where the recipient of a notice or other document served or sent by electronic transmission notifies the sender within seven days of receipt that the recipient requires a paper copy of all or any part of that notice or other document the sender must provide such a copy as soon as reasonably practicable.

(7) Any consent to the use of an electronic transmission by a person may be revoked by that person in accordance with paragraph (8).

(8) Where a person is no longer willing to accept the use of electronic transmission for any of the purposes of this Order—

- (a) that person must give notice in writing or by electronic transmission revoking any consent given by that person for that purpose; and
- (b) such revocation is final and takes effect on a date specified by the person in the notice but that date must not be less than seven days after the date on which the notice is given.

(a) 1978 c.30. Section 7 was amended by paragraph 19 of Schedule 10 to the Road Traffic Regulation Act 1984 (c.27). There are other amendments not relevant to this Order.

(9) This article does not exclude the employment of any method of service not expressly provided for by it.

Compensation provisions

45. Schedule 14 (compensation measures) has effect.

Signed by Authority of the Secretary of State for Business, Energy and Industrial Strategy

Gareth Leigh

Head of Energy Infrastructure Planning
Department for Business, Energy and Industrial Strategy

31st December 2020

SCHEDULES

SCHEDULE 1

Article 2

AUTHORISED PROJECT

PART 1

AUTHORISED DEVELOPMENT

1. A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act which is located in the North Sea approximately 121 kilometres to the northeast of the north Norfolk coast and approximately 10 kilometres west of the median line between UK and Netherlands waters, comprising—

Work No. 1—

- (a) an offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 231 wind turbine generators each fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation or gravity base foundation;
- (b) up to three offshore accommodation platforms fixed to the seabed within the area shown on the works plan by monopile foundation, mono suction bucket foundation, jacket foundation, or gravity base foundation and which may be connected to each other or one of the offshore substations within Work No. 2 by an unsupported bridge; and
- (c) a network of cables between the wind turbine generators and between the wind turbine generators and Work No. 2 including one or more cable crossings;

and associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising—

Work No. 2—

- (a) up to 12 offshore type 1 substations each fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation or box-type gravity base foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;
- (b) up to four offshore type 2 substations each fixed to the seabed by either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base 1 foundations, or pontoon gravity base 2 foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;
- (c) a network of cables;
- (d) up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MLWS including one or more cable crossings; and
- (e) up to eight temporary horizontal directional drilling exit pits;

Work No. 3—

- (a) in the event that the mode of transmission is HVAC, up to four offshore HVAC booster stations fixed to the seabed within the area shown on the works plan by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation, or box-type gravity base foundations;

- (b) in the event that the mode of transmission is HVAC, up to six offshore subsea HVAC booster stations fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation, or box-type gravity base foundations;
- (c) in the event that the mode of transmission is HVAC, a network of cables between HVAC booster stations or offshore subsea HVAC booster stations; and
- (d) in the event that the mode of transmission is HVAC, up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MHWS including one or more cable crossings;

Work No. 4— a temporary work area associated with Work No.2 and Work No.3 for vessels to carry out intrusive activities alongside Work No.2 or Work No.3;

Work No. 5— landfall connection works comprising up to six cable circuits and ducts and onshore construction works within the Order limits seaward of MHWS and landward of MLWS;

In the county of Norfolk, districts of North Norfolk, Broadland and South Norfolk

Work No. 6— onshore connection works consisting of up to six cable circuits, ducts and between Work No. 5 and Work No. 7 landward of MHWS and onshore construction works;

Work No.7— onshore connection works consisting of—

- (a) up to six cable circuits and associated electrical circuit ducts between Work No. 6 to Work No. 8;
- (b) onshore construction works;
- (c) up to six transition joint bays; and
- (d) horizontal directional drilling launch pits;

Work No. 8— onshore connection works consisting of—

- (a) up to six cable circuits and associated electrical circuit ducts to Work No. 11;
- (b) onshore construction works;
- (c) up to 440 link boxes; and
- (d) up to 440 joint bays;

Work No. 9— onshore connection works consisting of the construction of an onshore HVAC booster station, together with onshore construction works;

Work No. 10— onshore connection works consisting of an onshore HVDC/HVAC substation, including up to six cable circuits and electrical circuit ducts, and onshore construction works;

Work No. 11— onshore connection works consisting of up to six cable circuits and electrical circuit ducts between Work No. 10 and Work No. 12 and onshore construction works;

Work No. 12— onshore connection works consisting of up to six cable circuits and electrical circuit ducts between Work No. 11 and the Norwich Main National Grid substation, including a connection above ground and electrical engineering works within or around the National Grid substation buildings and compound, and onshore construction works;

Work No. 13— a construction compound to support the construction of Work Nos. 8, 9, 10, 11, 12, 14 and 15;

Work No. 14— temporary vehicular access tracks to serve Work Nos. 7, 8, 9, 10, 11, 12, 13 and 15; and

Work No. 15— temporary storage areas to assist with the onshore connection works.

In connection with such Work Nos. 1 to 5 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised

development and which fall within the scope of the work assessed by the environmental statement, including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 1 to 5 and the disposal of up to 3,563,133 cubic metres of inert material of natural origin within the Order limits produced during construction drilling, seabed preparation for foundation works, cable installation preparation such as sandwave clearance, boulder clearance and pre-trenching and excavation of horizontal directional drilling exit pits; and
- (d) removal of static fishing equipment;

and in connection with such Work Nos. 6 to 15 and to the extent that they do not otherwise form part of any such work, further associated development comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised development and which fall within the scope of the work assessed by the environmental statement, including—

- (a) ramps, means of access and footpaths;
- (b) bunds, embankments, swales, landscaping, fencing and boundary treatments;
- (c) habitat creation;
- (d) jointing bays, link boxes, cable ducts, cable protection, joint protection, manholes, marker posts, underground cable marker, tiles and tape, and lighting and other works associated with cable laying;
- (e) works for the provision of apparatus including cabling, water and electricity supply works, foul drainage provision, surface water management systems and culverting;
- (f) works to alter the position of apparatus, including mains, sewers, drains and cables;
- (g) works to alter the course of, or otherwise interfere with, non-navigable rivers, streams or watercourses;
- (h) landscaping and other works to mitigate any adverse effects of the construction, maintenance or operation of the authorised project;
- (i) works for the benefit or protection of land affected by the authorised project;
- (j) working sites in connection with the construction of the authorised project, construction lay down areas and compounds, storage compounds and their restoration.

2. The grid coordinates for that part of the authorised project which is seaward of MHWS are specified below—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	52° 57' 23.299" N	1° 5' 48.611" E	64	53° 45' 27.296" N	2° 34' 19.781" E
2	52° 58' 22.516" N	1° 4' 22.810" E	65	53° 45' 17.155" N	2° 33' 57.193" E
3	52° 59' 43.107" N	1° 3' 16.300" E	66	53° 44' 25.151" N	2° 28' 22.483" E
4	53° 0' 12.806" N	1° 3' 4.176" E	67	53° 43' 43.437" N	2° 23' 42.266" E
5	53° 0' 41.322" N	1° 3' 5.626" E	68	53° 43' 38.549" N	2° 23' 1.918" E
6	53° 2' 15.365" N	1° 3' 25.796" E	69	53° 40' 30.736" N	2° 17' 49.303" E
7	53° 4' 22.383" N	1° 5' 4.618" E	70	53° 37' 10.969" N	2° 7' 19.167" E
8	53° 4' 48.739" N	1° 5' 38.118" E	71	53° 37' 2.480" N	2° 6' 39.277" E
9	53° 5' 0.912" N	1° 6' 53.813" E	72	53° 36' 20.389" N	2° 5' 9.581" E
10	53° 4' 56.963" N	1° 8' 49.809" E	73	53° 35' 18.067" N	2° 5' 0.546" E
11	53° 4' 47.089" N	1° 10' 20.278" E	74	53° 34' 58.529" N	2° 4' 49.759" E
12	53° 4' 50.116" N	1° 12' 8.936" E	75	53° 34' 37.908" N	2° 4' 16.626" E

13	53° 5' 1.606" N	1° 14' 7.325" E	76	53° 32' 54.718" N	2° 4' 40.220" E
14	53° 5' 2.192" N	1° 14' 30.074" E	77	53° 32' 31.275" N	2° 4' 37.727" E
15	53° 4' 58.764" N	1° 14' 55.483" E	78	53° 31' 59.257" N	2° 4' 11.934" E
16	53° 4' 32.854" N	1° 16' 47.381" E	79	53° 31' 13.675" N	2° 3' 20.449" E
17	53° 4' 32.226" N	1° 19' 19.524" E	80	53° 30' 18.703" N	2° 2' 26.715" E
18	53° 4' 54.358" N	1° 22' 30.281" E	81	53° 30' 0.496" N	2° 1' 55.943" E
19	53° 5' 6.119" N	1° 25' 0.302" E	82	53° 29' 53.014" N	2° 1' 22.871" E
20	53° 5' 7.887" N	1° 26' 23.233" E	83	53° 29' 52.335" N	2° 0' 47.588" E
21	53° 5' 4.100" N	1° 27' 30.916" E	84	53° 28' 18.157" N	1° 53' 52.525" E
22	53° 5' 52.998" N	1° 28' 30.016" E	85	53° 27' 38.035" N	1° 51' 19.593" E
23	53° 14' 11.509" N	1° 41' 28.704" E	86	53° 27' 25.643" N	1° 50' 32.418" E
24	53° 14' 27.431" N	1° 42' 14.962" E	87	53° 27' 18.150" N	1° 50' 31.601" E
25	53° 15' 49.705" N	1° 44' 10.074" E	88	53° 26' 16.707" N	1° 50' 4.603" E
26	53° 16' 25.597" N	1° 44' 37.874" E	89	53° 25' 53.921" N	1° 50' 10.016" E
27	53° 19' 1.814" N	1° 45' 50.556" E	90	53° 25' 34.502" N	1° 50' 4.308" E
28	53° 22' 33.955" N	1° 46' 57.914" E	91	53° 24' 21.903" N	1° 49' 42.825" E
29	53° 22' 55.872" N	1° 46' 55.918" E	92	53° 24' 2.505" N	1° 49' 42.663" E
30	53° 23' 22.176" N	1° 47' 7.319" E	93	53° 23' 34.480" N	1° 49' 32.287" E
31	53° 23' 41.762" N	1° 47' 5.727" E	94	53° 23' 14.095" N	1° 49' 34.013" E
32	53° 24' 11.270" N	1° 47' 16.705" E	95	53° 22' 47.157" N	1° 49' 22.581" E
33	53° 24' 33.225" N	1° 47' 17.703" E	96	53° 22' 23.714" N	1° 49' 23.370" E
34	53° 25' 56.028" N	1° 47' 42.459" E	97	53° 18' 42.217" N	1° 48' 12.788" E
35	53° 26' 20.933" N	1° 47' 36.143" E	98	53° 15' 55.220" N	1° 46' 54.772" E
36	53° 26' 43.765" N	1° 47' 45.420" E	99	53° 15' 3.154" N	1° 46' 14.109" E
37	53° 27' 30.131" N	1° 48' 5.945" E	100	53° 13' 23.395" N	1° 43' 55.484" E
38	53° 27' 46.677" N	1° 48' 5.619" E	101	53° 13' 5.062" N	1° 43' 4.402" E
39	53° 28' 17.076" N	1° 48' 21.428" E	102	53° 4' 59.121" N	1° 30' 24.338" E
40	53° 28' 37.302" N	1° 49' 1.846" E	103	53° 4' 20.493" N	1° 29' 37.106" E
41	53° 29' 38.707" N	1° 52' 55.786" E	104	53° 4' 9.988" N	1° 29' 29.310" E
42	53° 31' 13.071" N	1° 59' 48.933" E	105	53° 3' 47.663" N	1° 28' 59.880" E
43	53° 31' 19.720" N	2° 0' 36.709" E	106	53° 3' 36.602" N	1° 28' 9.237" E
44	53° 32' 1.260" N	2° 1' 17.462" E	107	53° 3' 36.599" N	1° 27' 27.833" E
45	53° 32' 51.864" N	2° 2' 12.822" E	108	53° 3' 40.623" N	1° 26' 14.722" E
46	53° 34' 50.465" N	2° 1' 45.585" E	109	53° 3' 39.011" N	1° 25' 12.221" E
47	53° 35' 23.664" N	2° 1' 56.535" E	110	53° 3' 28.120" N	1° 22' 53.680" E
48	53° 35' 46.884" N	2° 2' 37.417" E	111	53° 3' 4.980" N	1° 19' 32.112" E
49	53° 36' 32.251" N	2° 2' 43.845" E	112	53° 3' 6.278" N	1° 16' 22.646" E
50	53° 37' 0.888" N	2° 2' 53.784" E	113	53° 3' 34.066" N	1° 14' 17.070" E
51	53° 37' 20.916" N	2° 3' 21.412" E	114	53° 3' 23.126" N	1° 12' 23.483" E
52	53° 38' 20.262" N	2° 5' 30.569" E	115	53° 3' 19.662" N	1° 10' 8.762" E
53	53° 38' 31.038" N	2° 6' 19.862" E	116	53° 3' 30.020" N	1° 8' 33.828" E
54	53° 41' 39.572" N	2° 16' 17.662" E	117	53° 3' 32.792" N	1° 7' 6.899" E
55	53° 44' 4.728" N	2° 20' 18.541" E	118	53° 1' 51.145" N	1° 5' 45.682" E
56	53° 51' 54.307" N	2° 19' 24.004" E	119	53° 0' 17.303" N	1° 5' 29.793" E
57	53° 52' 12.798" N	2° 19' 38.938" E	120	52° 59' 10.951" N	1° 6' 24.006" E
58	53° 59' 22.420" N	2° 11' 50.694" E	121	52° 58' 23.000" N	1° 7' 34.209" E
59	53° 59' 19.280" N	2° 13' 34.691" E	122	52° 57' 44.291" N	1° 7' 45.470" E
60	53° 58' 42.514" N	2° 32' 43.904" E	123	52° 57' 19.850" N	1° 7' 56.688" E

61	54° 0' 4.028" N	2° 40' 52.651" E	124	52° 56' 59.623" N	1° 8' 4.381" E
62	53° 48' 57.136" N	2° 44' 53.902" E	125	52° 57' 2.633" N	1° 7' 44.016" E
63	53° 41' 22.175" N	2° 47' 35.927" E	126	52° 57' 4.058" N	1° 7' 42.464" E

PART 2 ANCILLARY WORKS

1. Works within the Order limits which have been subject to an environmental impact assessment recorded in the environmental statement comprising—

- (a) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised development;
- (b) marking buoys, beacons, fenders and other navigational warning or ship impact protection works; and
- (c) temporary works for the benefit or protection of land or structures affected by the authorised development.

PART 3 REQUIREMENTS

Time limits

1. The authorised project must commence no later than the expiration of seven years beginning with the date this Order comes into force.

Detailed offshore design parameters

2.—(1) The total number of wind turbine generators comprised in the authorised project must not exceed 231 and a total rotor swept area of 8.8 square kilometres.

(2) Subject to sub-paragraph (3), each wind turbine generator forming part of the authorised project must not—

- (a) exceed a height of 325 metres when measured from LAT to the tip of the vertical blade;
- (b) exceed a rotor diameter of 265 metres;
- (c) be less than 41.8 metres from LAT to the lowest point of the rotating blade; and
- (d) be less than one kilometre from the nearest wind turbine generator in all directions.

(3) The reference in sub-paragraph (2)(d) to the location of a wind turbine generator is a reference to the centre point of that wind turbine generator.

(4) Wind turbine generator foundation structures forming part of the authorised scheme must be one of the following foundation options: monopile foundation, mono suction bucket foundation, jacket foundation or gravity base foundation.

(5) No wind turbine generator—

- (a) jacket foundations employing pin piles forming part of the authorised project shall have a pin pile diameter of greater than four metres; and
- (b) monopile foundation forming part of the authorised project shall have a diameter greater than 15 metres.

(6) The total seabed footprint area for wind turbine generator foundations must not exceed—

- (a) 435,660 square metres excluding scour protection; and
- (b) 1,623,182 square metres including scour protection.

3.—(1) The total number of offshore electrical installations and offshore accommodation platforms shall not exceed 21, and shall consist of no more than—

- (a) 12 offshore type 1 substations;
- (b) four offshore type 2 substations;
- (c) four offshore HVAC booster stations;
- (d) six offshore subsea HVAC booster stations; and
- (e) three offshore accommodation platforms.

(2) The dimensions of any offshore type 1 substation forming part of the authorised project must not exceed—

- (a) 90 metres in height when measured from LAT;
- (b) 100 metres in length; and
- (c) 100 metres in width.

(3) The dimensions of any offshore type 2 substation forming part of the authorised project must not exceed—

- (a) 110 metres in height when measured from LAT;
- (b) 180 metres in length; and
- (c) 90 metres in width.

(4) The dimensions of any offshore HVAC booster station forming part of the authorised project must not exceed—

- (a) 90 metres in height when measured from LAT;
- (b) 100 metres in length; and
- (c) 100 metres in width.

(5) The dimensions of any offshore subsea HVAC booster station forming part of the authorised project must not exceed—

- (a) 15 metres in height when measured from the seabed;
- (b) 50 metres in length; and
- (c) 50 metres in width.

(6) The dimensions of any offshore accommodation platform forming part of the authorised project must not exceed—

- (a) 64 metres in height when measured from LAT;
- (b) 60 metres in length; and
- (c) 60 metres in width.

(7) Any bridge located between any offshore substation or accommodation platform shall be no longer than 100 metres.

(8) Offshore accommodation platform foundation structures forming part of the authorised project must be one of the following foundation options: monopile foundations, mono suction bucket foundations, jacket foundations, or gravity base foundations.

(9) Offshore installation foundation structures forming part of the authorised scheme must be one of the following foundation options—

- (a) for offshore type 1 substations, offshore HVAC booster stations and offshore subsea HVAC booster stations either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations or box-type gravity base foundations; and
- (b) for offshore type 2 substations, either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base 1 foundations, or pontoon gravity base 2 foundations.

- (10) No offshore installation or offshore accommodation platform—
- (a) jacket foundation employing pin piles forming part of the authorised project shall have a pin pile diameter of greater than 4 metres; and
 - (b) monopile foundation forming part of the authorised project shall have a diameter greater than 15 metres.
- (11) The total seabed footprint area for offshore accommodation platform foundations must not exceed—
- (a) 8,836 square metres excluding scour protection; and
 - (b) 28,628 square metres including scour protection.
- (12) The total seabed footprint area for offshore electrical installation foundations must not exceed—
- (a) 138,900 square metres excluding scour protection; and
 - (b) 267,900 square metres including scour protection.
4. The total volume of scour protection for wind turbine generators, offshore accommodation platforms and offshore electrical installations shall not exceed 2,709,673 cubic metres.
- 5.—(1) The number of cable circuits shall not exceed six.
- (2) The total length of the cables comprising Work No. 1(c) shall not exceed 830 kilometres.
 - (3) The total length of the cables comprising Work Nos. 2(c), 2(d) and 3(d) shall not exceed 1,371 kilometres.
 - (4) The total volume of cable protection (excluding cable crossings) shall not exceed 2,201,000 cubic metres with a maximum footprint of 1,540,700 square metres.
 - (5) The total volume of cable protection associated with cable crossings shall not exceed 784,875 cubic metres with a maximum footprint of 747,500 square metres.
 - (6) The total number of the cable crossings must not exceed 44 unless otherwise agreed with the MMO.

Phases of authorised development

- 6.—(1) The authorised development may not be commenced until a written scheme setting out the phases of construction of the authorised project has been submitted to and approved by the relevant planning authority, in relation to the connection works, or the MMO, in relation to works seaward of MHWS.
- (2) The phases of construction referred to in sub-paragraph (1) shall not exceed two, save that each phase may be undertaken in any number of stages as prescribed in the written scheme.
 - (3) The scheme must be implemented as approved.

Detailed design approval onshore

- 7.—(1) Construction of the connection works in either Work No.9 or Work No. 10 shall not commence until details of—
- (a) the layout;
 - (b) scale;
 - (c) proposed finished ground levels;
 - (d) external appearance and materials;
 - (e) hard surfacing materials;
 - (f) vehicular and pedestrian access, parking and circulation areas;
 - (g) minor structures, such as furniture, refuse or other storage units, signs and lighting; and

- (h) proposed and existing functional services above and below, ground, including drainage, power and communications cables and pipelines, manholes and supports;

relating to that work of the authorised project have been submitted to and approved in writing by the relevant planning authority.

(2) The details submitted under sub-paragraph (1) must be in accordance with the limits of deviation set out in the onshore limits of deviation plan and substantially in accordance with the design objectives and principles.

(3) The connection works in Works No.9 and 10 must be carried out in accordance with the approved details.

(4) The connection works in either Work No.9 or Work No. 10 shall not commence until explanation of the choice of HVDC or HVAC for that phase has been provided in writing to the relevant planning authority, either before, or at the same time as, the details referred to in paragraph (1).

Provision of landscaping

8.—(1) No phase of the connection works may commence until for that phase a written landscape plan and associated work programme (which accords with the outline landscape plan and outline ecological management plan) has been submitted to and approved by the relevant planning authority in consultation with the relevant SNCBs and the Historic Buildings and Monuments Commission for England.

(2) The term “commence” as used in requirement 8(1) shall include any onshore site preparation works.

(3) The landscape plan must include details of—

- (a) surveys, assessments and method statements as guided by BS 5837 and the Hedgerows Regulations 1997; and
- (b) location, number, species, size and planting density of any proposed planting;
- (c) cultivation, importing of materials and other operations to ensure plant establishment;
- (d) existing trees and hedges to be retained with measures for their protection during the construction period; and
- (e) implementation timetables for all landscaping works.

(4) The landscape plan must be carried out as approved.

Implementation and maintenance of landscaping

9.—(1) All landscape works must be carried out in accordance with the landscape plans approved under requirement 8 (provision of landscaping), and in accordance with the relevant recommendations of appropriate British Standards.

(2) Any tree or shrub planted as part of an approved landscape plan that, within a period of ten years after planting, is removed by the undertaker, dies or becomes, in the opinion of the relevant planning authority, seriously damaged or diseased must be replaced in the first available planting season with a specimen of the same species and size as that originally planted unless otherwise approved in writing by the relevant planning authority.

Ecological management plan

10.—(1) No phase of the connection works may commence until for that phase a written ecological management plan (which accords with the outline ecological management plan and the relevant recommendations of appropriate British Standards) reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement has been submitted to and approved by the relevant planning authority in consultation with the relevant SNCBs and (where works have potential to impact wetland habitats) the Environment Agency.

(2) The onshore site preparation works may not commence until a written ecological management plan (which accords with the outline ecological management plan) for those works reflecting the survey results and ecological mitigation and enhancement measures included in the environmental statement has been submitted to and approved by the relevant planning authority in consultation with the relevant SNCBs; and

(3) The ecological management plan must include an implementation timetable and must be carried out as approved.

Highway accesses

11.—(1) Construction of any new permanent or temporary means of access to a highway, or alteration, or use of an existing means of access to a highway, shall not commence until an access plan for that access has been submitted to and approved by Norfolk County Council as the local highway authority.

(2) The access plan must include details of the siting, design, layout, visibility splays, access management measures and a maintenance programme relevant to the access it relates to.

(3) The highway authority must be consulted on the access plan before it is submitted for approval.

(4) The highway accesses (including visibility splays) must be constructed and maintained in accordance with the approved details.

Fencing and other means of enclosure

12.—(1) No phase of the connection works may commence until for that phase written details of all proposed permanent fences, walls or other means of enclosure of the connection works have been submitted to and approved by the relevant planning authority.

(2) Any temporary fences, walls or other means of enclosure must be provided in accordance with the outline code of construction practice.

(3) All construction sites must remain securely fenced in accordance with the code of construction practice at all times during construction of the relevant phase of the connection works.

(4) Any temporary fencing must be removed on completion of the relevant phase of the connection works.

(5) Any approved permanent fencing in relation to an onshore HVDC/HVAC substation or onshore HVAC booster station must be completed before that onshore HVDC/HVAC substation or onshore HVAC booster station is brought into use and maintained for the operational lifetime of the onshore HVDC/HVAC substation or onshore HVAC booster station.

Surface and foul water drainage

13.—(1) No phase of the connection works shall commence until for that phase written details of the surface and (if any) foul water drainage system (including means of pollution control) have, after consultation with the relevant sewerage and drainage authorities and the Environment Agency, been submitted to and approved by the lead local flood authority.

(2) The surface and foul water drainage system for each phase must be constructed and maintained in accordance with the approved details.

Contaminated land and groundwater scheme

14.—(1) No phase of the authorised development within the area of a relevant planning authority may be commenced until a scheme to deal with the contamination of any land (including groundwater) within the Order limits that is likely to cause significant harm to persons or pollution of controlled waters or the environment has been submitted to, and approved by, the relevant

planning authority in consultation with the Environment Agency and, to the extent that the plan relates to the intertidal area, the MMO.

(2) The scheme must include an investigation and assessment report, prepared by a specialist consultant approved by the relevant planning authority, to identify the extent of any contamination and the remedial measures to be taken for that stage to render the land fit for its intended purpose, together with a management plan which sets out long-term measures with respect to any contaminants remaining on the site.

(3) Such remediation as may be identified in the approved scheme must be carried out in accordance with the approved scheme.

Surface water

15.—(1) No part of the onshore HVDC/HVAC substation or onshore HVAC booster station shall commence until, in respect of that installation, a detailed surface water scheme has been prepared in consultation with the Environment Agency and Norfolk County Council and submitted to and approved in writing by Norfolk County Council.

(2) The detailed surface water schemes must accord with the outline code of construction practice and—

- (a) be based on sustainable drainage principles;
- (b) an assessment of the hydrological and hydrogeological context of the onshore HVDC/HVAC substation or onshore HVAC booster station, as applicable; and
- (c) include detailed designs of a surface water drainage scheme.

(3) Construction of the onshore HVDC/HVAC substation or HVAC booster station as applicable must be carried out in accordance with the approved scheme.

Onshore Archaeology

16.—(1) No phase of the connection works may commence until for that phase a written scheme of archaeological investigation (which must accord with the outline onshore written scheme of investigation) for Work Nos. 6 to 15 has been submitted to and approved by the relevant planning authority in consultation with Norfolk County Council and the Historic Buildings and Monuments Commission for England.

(2) The term “commence” as used in requirement 16(1) shall include any onshore site preparation works.

(3) Any archaeological investigations must be carried out in accordance with the approved scheme.

(4) The archaeological site investigations and post investigation assessment must be completed for that phase in accordance with the programme set out in the written scheme of archaeological investigation and provision made for analysis, publication and dissemination of results and archive deposition secured for that phase.

Code of construction practice

17.—(1) No phase of any works landward of MLWS may commence until for that phase a code of construction practice (which must accord with the outline code of construction practice) has been submitted to and approved by the relevant planning authority, in consultation with the Environment Agency, the relevant SNCBs, the relevant highway authority and, if applicable, the MMO.

(2) The term “commence” as used in requirement 17(1) shall include any onshore site preparation works.

(3) All construction works for each phase must be undertaken in accordance with the relevant approved code of construction practice.

Construction traffic management plan

18.—(1) No phase of the connection works may commence until written details of a construction traffic management plan (which accords with the outline construction traffic management plan) for that phase has been submitted to and approved by the relevant planning authority in consultation with the relevant highway authority. The construction traffic management plan shall include, in respect of Link 89, as referred to in the Environmental Statement, a Cawston Highway Intervention Scheme agreed between the undertaker and the relevant highway authority.

(2) The term “commence” as used in requirement 18(1) shall include any onshore site preparation works.

(3) The construction traffic management plan for each phase must be implemented as approved for that phase.

European protected species onshore

19.—(1) No phase of the connection works may commence until final pre-construction survey work has been carried out to establish whether a European protected species is present on any of the land affected, or likely to be affected, by that phase of the connection works or in any of the trees to be lopped or felled as part of that phase of the connection works.

(2) Where a European protected species is shown to be present, the relevant part of the connection works must not begin until, after consultation with the relevant SNCBs and the relevant planning authority, a scheme of protection and mitigation measures has been submitted to and approved by the relevant planning authority or a European protected species licence granted by Natural England.

(3) The connection works must be carried out in accordance with the approved scheme.

(4) In this Requirement, “European protected species” has the same meaning as in regulations 42 and 46 of the Conservation of Habitats and Species Regulations 2017(a).

Restoration of land used temporarily for construction

20. Any land landward of MLWS within the Order limits which is used temporarily for construction of the connection works and not ultimately incorporated in permanent works or approved landscaping, must be reinstated in accordance with such details as the relevant planning authority in consultation with, where appropriate, the MMO, and the relevant highway authority, may approve, as soon as reasonably practicable and in any event within twelve months of completion of the relevant phase of the connection works.

Control of noise during operational phase

21.—(1) Prior to commencement of any phase of works landward of MHWS, a noise management plan (NMP) for Work Nos. 9 and 10 shall be submitted to and approved by the relevant planning authority.

(2) The NMP must set out the particulars of—

- (a) the noise attenuation and mitigation measures to be taken to minimise noise resulting from Work Nos. 9 and 10, including any noise limits; and
- (b) a scheme for monitoring attenuation and mitigation measures provided under subparagraph (a) which must include—
 - (i) the circumstances under which noise will be monitored;
 - (ii) the locations at which noise will be monitored;

(a) S.I. 2017/1012.

- (iii) the method of noise measurement (which must be in accord with BS 4142:2014+A1:2019, an equivalent successor standard or other agreed noise measurement methodology appropriate to the circumstances); and
 - (iv) a complaints procedure.
- (3) The NMP must be implemented as approved.

Local skills and employment

22.—(1) No phase of the connection works may commence until for that phase a skills and employment plan (which accords with the outline skills and employment plan) in relation to the authorised development—

- (a) within the boundaries of Norfolk County Council has been submitted to and approved by Norfolk County Council; and
- (b) within the boundaries of North East Lincolnshire Council has been submitted to and approved by North East Lincolnshire Council.

(2) The skills and employment plan described under requirement 22(1)(a) shall be prepared in consultation with Norfolk County Council, North Norfolk District Council, Broadland District Council, South Norfolk Council and the New Anglia Local Enterprise Partnership, or such other body as may be approved by Norfolk County Council.

(3) The skills and employment plan described under requirement 22(1)(b) shall be prepared in consultation with Humber Local Enterprise Partnership, or such other body as may be approved by North East Lincolnshire Council.

(4) Each skills and employment plan shall identify opportunities for individuals and businesses based in the regions of East Anglia or the Humber to access employment opportunities associated with the construction, operation and maintenance of the authorised development.

(5) The skills and employment plans shall be implemented as approved.

Onshore decommissioning

23.—(1) Within three months of the cessation of commercial operation of the connection works an onshore decommissioning plan must be submitted to the relevant planning authority for approval unless otherwise agreed in writing by the relevant planning authority.

(2) The relevant planning authority must provide its decision on the onshore decommissioning plan required under requirement 23(1) within three months of submission of such plan unless otherwise agreed in writing by the relevant planning authority and the undertaker.

(3) The decommissioning plan must be implemented as approved unless otherwise agreed in writing by the relevant planning authority.

Notification of generation of power

24. The undertaker shall notify the relevant planning authority and the MMO upon first generation of power from each phase of the authorised project not less than seven days after the occurrence of this event.

Requirement for written approval

25. Where the approval, agreement or confirmation of the Secretary of State, relevant planning authority or another person is required under a requirement, that approval, agreement or confirmation must be given in writing.

Amendments to approved details

26.—(1) With respect to any requirement which requires the authorised project to be carried out in accordance with the details approved by the relevant planning authority or another person, the

approved details must be carried out as approved unless an amendment or variation is previously agreed in writing by the relevant planning authority or that other person in accordance with subparagraph (2).

(2) Any amendments to or variations from the approved details must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the relevant planning authority or that other person that the subject matter of the agreement sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

(3) The approved details must be taken to include any amendments that may subsequently be approved in writing by the relevant planning authority or that other person.

SCHEDULE 2

Article 8

STREETS SUBJECT TO STREET WORKS

<i>(1) Area</i>	<i>(2) Street subject to street works</i>
North Norfolk District	Private access tracks associated with Muckleberry Collection to the north of The Street
North Norfolk District	Private access track to the north of the A149 and east of Meadow Lane
North Norfolk District	Private access track running parallel to the west end of the A149
North Norfolk District	A149
North Norfolk District	Private access track to the west of Croft Hill
North Norfolk District	Private access track to the west of Croft Hill and north of Spion Kop
North Norfolk District	Private access tracks to the north of Broomhill Plantation and west of Spion Kop
North Norfolk District	Private access track to the east of Broomhill Plantation and west of Spion Kop
North Norfolk District	Private access track running parallel to part of Holgate Hill
North Norfolk District	Holgate Hill
North Norfolk District	Private access track running south east from Holgate Hill
North Norfolk District	Private access track to the east of the North Norfolk Railway
North Norfolk District	Private access track to the north of Warren Farm
North Norfolk District	Private access track to the east of Warren Farm
North Norfolk District	Bridge Road
North Norfolk District	Local street
North Norfolk District	Warren Road
North Norfolk District	Private access track to the north of Cromer Road
North Norfolk District	Cromer Road (A148)
North Norfolk District	Kelling Road
North Norfolk District	Church Road
North Norfolk District	Private access track to the south of Church Road
North Norfolk District	Private access track running to the east of Becketts Farm towards Hall Lane
North Norfolk District	Hempstead Road
North Norfolk District	School Lane
North Norfolk District	Hole Farm Road
North Norfolk District	Plumbstead Road
North Norfolk District	Sweetbriar Lane
North Norfolk District	Private access track to the south west of Barningham Green Plantation
North Norfolk District	Private access track to the south west of Barningham Green Plantation

North Norfolk District	Holt Road
North Norfolk District	Holt Road (B1149)
North Norfolk District	Private access track running north east from Holt Road B1149
North Norfolk District	Briston Road (B1354)
North Norfolk District	Croft Lane
North Norfolk District	Town Close Lane
North Norfolk District	Wood Dalling Road
Broadland District	Blackwater Lane
Broadland District	Heydon Lane
Broadland District	Heydon Road
Broadland District	Reepham Road
Broadland District	Merrison's Lane
Broadland District	Wood Dalling Road
Broadland District	Cawston Road (B1145)
Broadland District	Private access track running south east from Cawston Road
Broadland District	Private access track to the north of Moor Farm
Broadland District	Private access tracks to the north of Moor Farm
Broadland District	Private access track to the east of Moor Farm
Broadland District	Private access track to the north of Church Road
Broadland District	The Grove
Broadland District	Reepham Road
Broadland District	Church Road
Broadland District	Church Farm Lane
Broadland District	Hall Road
Broadland District	Private access track to the south of Hall Road
Broadland District	Ropham Road
Broadland District	Station Road
Broadland District	Private access track to the west of Station Road
Broadland District	Private access track running south west from Station Road
Broadland District	Private access track to the west of Station Road
Broadland District	The Street
Broadland District	Fakenham Road (A1067)
Broadland District	Marl Hill Road
Broadland District	Ringland Lane to Church Street
Broadland District	Ringland Lane
Broadland District	Private access track running south west from Ringland Lane
Broadland District	Blackbreck Lane
Broadland District	Weston Road
Broadland District	Hornington Lane
Broadland District	Private access track known as Sandy Lane, running to the north of Weston Road
South Norfolk	Private access track running south from Weston Road
South Norfolk	Private access track running east from the track mentioned above towards Ringland Road
South Norfolk	Church Lane
South Norfolk	A47

South Norfolk	Church Lane
South Norfolk	Private access track known as Broom Lane
South Norfolk	Easton Road
South Norfolk	Private access tracks to the north of Bawburgh Road
South Norfolk	Bawburgh Road
South Norfolk	Private access track running north to south to the west of Algarsthorpe
South Norfolk	Private access track running west from Bawburgh Road
South Norfolk	Private access track running west from Bawburgh Road
South Norfolk	Walton Road (B1108)
South Norfolk	Market Lane
South Norfolk	Private access track running north east in parallel to part of Market Lane
South Norfolk	Private access track running west of Market Lane
South Norfolk	Great Melton Road
South Norfolk	Private access track running south from Great Melton Road
South Norfolk	Little Melton Road
South Norfolk	Burnthouse Lane
South Norfolk	Private access track running north east from Burnthouse Lane
South Norfolk	Colney Lane
South Norfolk	Norwich Road
South Norfolk	Station Lane
South Norfolk	Private access track running east then north from Station Lane
South Norfolk	A11
South Norfolk	Cantley Lane
South Norfolk	Private access track running east from Cantley Lane
South Norfolk	Private access track running east from Cantley Lane
South Norfolk	Intwood Lane
South Norfolk	Swardeston Lane
South Norfolk	Main Road
South Norfolk	Mangreen Lane
South Norfolk	Private access track running south from Mangreen Lane
South Norfolk	Private access tracks south of Mangreen Cr
South Norfolk	Private access tracks running west from the A140
South Norfolk	Private access tracks south of Mangreen Cr
South Norfolk	Private access track running north west from Oulton Street

SCHEDULE 3

Article 10

STREETS TO BE TEMPORARILY STOPPED UP

<i>(1) Area</i>	<i>(2) Public rights of way to be temporarily stopped up</i>	<i>(3)Extent of temporary stopping up</i>
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 1a, 1i, 1j, 1k, 1m, 1n and 1p as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 1c and 1d as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 1e and 1f as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 1h and 1g as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 2a and 2b as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 3a and 3b as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 4a and 4b as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	Private access track associated with Muckleberry Collection	Between points 5a and 5b as shown shaded brown on sheet 1 of the streets plan
North Norfolk District	A149	Between points 6a and 6b and between 6c and 6d as shown shaded green on sheet 1 of the streets plan
North Norfolk District	Private access track	Between points 7a and 7b as shown shaded brown on sheet 2 of the streets plan
North Norfolk District	Private access track	Between points 8a and 8b as shown shaded brown on sheet 2 of the streets plan
North Norfolk District	Private access track	Between points 9a, 9b, 9c, 9d and 9e as shown shaded brown on sheet 2 of the streets plan
North Norfolk District	Private access track	Between points 10a and 10b as shown shaded brown on sheet 2 of the streets plan
North Norfolk District	Private access track	Between points 11a and 11b as shown shaded brown on sheets 2 and 3 of the streets plan
North Norfolk District	Holgate Hill	Between points 12a and 12b as shown shaded green on sheets 2 and 3 of the streets plan
North Norfolk District	Private access track	Between points 13a, 13b and

		13c as shown shaded brown on sheet 3 of the streets plan
North Norfolk District	Private access track	Between points 14a and 14b as shown shaded brown on sheet 3 of the streets plan
North Norfolk District	Private access track	Between points 15a and 15b as shown shaded brown on sheet 3 of the streets plan
North Norfolk District	Private access track	Between points 16a and 16b as shown shaded brown on sheets 3 and 4 of the streets plan
North Norfolk District	Bridge Road	Between points 17a and 17b as shown shaded green on sheet 3 of the streets plan
North Norfolk District	Local street	Between points 17c and 17d as shown shaded green on sheets 3 and 4 of the streets plan
North Norfolk District	Warren Road	Between points 17d and 17e as shown shaded green on sheets 3 and 4 of the streets plan
North Norfolk District	Private access track	Between points 18a and 18b as shown shaded brown on sheet 4 of the streets plan
North Norfolk District	Cromer Road (A148)	Between points 19a and 19b as shown shaded green on sheet 4 of the streets plan
North Norfolk District	Kelling Road	Between points 20a and 20b as shown shaded green on sheet 4 of the streets plan
North Norfolk District	Church Road	Between points 21a and 21b as shown shaded green on sheet 5 of the streets plan
North Norfolk District	Private access track	Between points 22a and 22b as shown shaded brown on sheet 5 of the streets plan
North Norfolk District	Private access track	Between points 23a and 23b as shown shaded brown on sheet 6 of the streets plan
North Norfolk District	Hempstead Road	Between points 24a and 24b as shown shaded green on sheet 6 of the streets plan
North Norfolk District	School Lane	Between points 25a and 25b and between 25c and 25d as shown shaded green on sheet 7 of the streets plan
North Norfolk District	Hole Farm Road	Between points 26a and 26b as shown shaded green on sheet 7 of the streets plan
North Norfolk District	Plumbstead Road	Between points 27a and 27b as shown shaded green on sheet 8 of the streets plan
North Norfolk District	Sweetbriar Lane	Between points 28a and 28b as shown shaded green on sheet 9 of the streets plan
North Norfolk District	Private access track	Between points 29a and 29b as

		shown shaded brown on sheet 9 of the streets plan
North Norfolk District	Private access track	Between points 29c and 29d as shown shaded brown on sheet 9 of the streets plan
North Norfolk District	Private access track	Between points 31c and 31d as shown shaded brown on sheets 9 and 10 of the streets plan
North Norfolk District	Holt Road	Between points 30a and 30b as shown shaded green on sheet 10 of the streets plan
North Norfolk District	Holt Road (B1149)	Between points 31a and 31b as shown shaded green on sheet 10 of the streets plan
North Norfolk District	Briston Road (B1354)	Between points 32a and 32b as shown shaded green on sheet 10 of the streets plan
North Norfolk District	Croft Lane	Between points 33a and 33b as shown shaded green on sheet 11 of the streets plan
North Norfolk District	Town Close Lane	Between points 34a and 34b and between 34b and 34c as shown shaded green on sheet 11 of the streets plan
North Norfolk District	Wood Dalling Road	Between points 35a and 35b as shown shaded green on sheet 11 of the streets plan
Broadland District	Blackwater Lane	Between points 36a and 36b as shown shaded green on sheet 12 of the streets plan
Broadland District	Heydon Lane	Between points 37a and 37b as shown shaded green on sheet 13 of the streets plan
Broadland District	Heydon Road	Between points 38a and 38b as shown shaded green on sheet 13 of the streets plan
Broadland District	Reepham Road	Between points 39a and 39b as shown shaded green on sheet 14 of the streets plan
Broadland District	Reepham Road	Between points 40a and 40b as shown shaded green on sheet 14 of the streets plan
Broadland District	Merrison's Lane	Between points 41a, 41b, 41c and 41d as shown shaded green on sheet 15 of the streets plan
Broadland District	Wood Dalling Road	Between points 42a and 42b as shown shaded green on sheet 15 of the streets plan
Broadland District	Cawston Road (B1145)	Between points 43a and 43b as shown shaded green on sheet 15 of the streets plan
Broadland District	Cawston Road (B1145)	Between points 44a and 44b as shown shaded green on sheet 16 of the streets plan

Broadland District	Private access track	Between points 44c and 44d as shown shaded brown on sheet 16 of the streets plan
Broadland District	Private access track	Between points 45a and 45b as shown shaded brown on sheet 16 of the streets plan
Broadland District	Private access track	Between points 45c, 44d and 45e as shown shaded brown on sheet 16 of the streets plan
Broadland District	Private access track	Between points 46a and 46b as shown shaded brown on sheet 16 of the streets plan
Broadland District	Private access track	Between points 47a and 47b as shown shaded brown on sheets 16 and 17 of the streets plan
Broadland District	Church Road	Between points 48a and 48b as shown shaded green on sheet 17 of the streets plan
Broadland District	The Grove	Between points 49a and 49b as shown shaded green on sheet 17 of the streets plan
Broadland District	Reepham Road	Between points 50a and 50b as shown shaded green on sheet 18 of the streets plan
Broadland District	Church Road	Between points 51a and 51b as shown shaded green on sheet 19 of the streets plan
Broadland District	Church Farm Lane	Between points 52a and 51b and between 52c and 52d as shown shaded green on sheet 19 of the streets plan
Broadland District	Hall Road	Between points 53a and 53b as shown shaded green on sheet 19 of the streets plan
Broadland District	Hall Road	Between points 55a and 55b as shown shaded green on sheet 19 of the streets plan
Broadland District	Private access track	Between points 54a and 54b as shown shaded brown on sheet 20 of the streets plan
Broadland District	Ropham Road	Between points 56a and 56b as shown shaded green on sheet 20 of the streets plan
Broadland District	Station Road	Between points 57a and 57b as shown shaded green on sheet 20 of the streets plan
Broadland District	Private access track	Between points 58a and 58b as shown shaded brown on sheet 20 of the streets plan
Broadland District	Station Road	Between points 59a and 59b as shown shaded green on sheet 20 of the streets plan
Broadland District	Private access track	Between points 59c and 59d as shown shaded brown on sheet 20 of the streets plan

Broadland District	Private access track	Between points 60a and 60b as shown shaded brown on sheet 20 of the streets plan
Broadland District	The Street	Between points 61a and 61b as shown shaded green on sheet 21 of the streets plan
Broadland District	Fakenham Road (A1067)	Between points 62a and 62b as shown shaded green on sheet 21 of the streets plan
Broadland District	Marl Hill Road	Between points 63a and 63b as shown shaded green on sheet 21 of the streets plan
Broadland District	Ringland Lane	Between points 64a and 64b as shown shaded green on sheet 21 of the streets plan
Broadland District	Ringland Lane to Church Street	Between points 65a and 65b as shown shaded green on sheet 21 of the streets plan
Broadland District	Ringland Lane	Between points 66a and 66b as shown shaded green on sheet 22 of the streets plan
Broadland District	Private access track	Between points 67a and 67b as shown shaded brown on sheet 22 of the streets plan
Broadland District	Blackbreck Lane	Between points 68a and 68b as shown shaded green on sheet 23 of the streets plan
Broadland District	Weston Road	Between points 69a and 69b and between 69c and 69d as shown shaded green on sheet 23 of the streets plan
Broadland District	Hornington Lane	Between points 70a and 70b and between 70c and 70d as shown shaded green on sheet 23 of the streets plan
Broadland District	Private access track	Between points 71a and 71b as shown shaded brown on sheet 24 of the streets plan
South Norfolk	Weston Road	Between points 72a and 72b and between 72c and 72d as shown shaded green on sheet 24 of the streets plan
South Norfolk	Private access track	Between points 73a and 73b as shown shaded brown on sheet 24 of the streets plan
South Norfolk	Private access track	Between points 74a and 74b as shown shaded brown on sheet 24 of the streets plan
South Norfolk	Church Lane	Between points 75a and 75b as shown shaded green on sheet 25 of the streets plan
South Norfolk	A47	Between points 76a and 76b as shown shaded green on sheet 25 of the streets plan
South Norfolk	Church Lane	Between points 77a and 77b as

		shown shaded green on sheet 25 of the streets plan
South Norfolk	Private access track	Between points 78a and 78b as shown shaded brown on sheet 25 of the streets plan
South Norfolk	Easton Road	Between points 79a and 79b as shown shaded green on sheet 26 of the streets plan
South Norfolk	Private access track	Between points 80a, 8-b, 80c, 80d, and 80e as shown shaded brown on sheet 26 of the streets plan
South Norfolk	Bawburgh Road	Between points 81a and 81b as shown shaded green on sheet 26 of the streets plan
South Norfolk	Bawburgh Road	Between points 81c and 81d as shown shaded green on sheets 26 and 27 of the streets plan
South Norfolk	Private access track	Between points 82a and 82b as shown shaded brown on sheet 27 of the streets plan
South Norfolk	Private access track	Between points 83a and 83b as shown shaded brown on sheet 27 of the streets plan
South Norfolk	Private access track	Between points 84a and 84b as shown shaded brown on sheet 27 of the streets plan
South Norfolk	Bawburgh Road	Between points 85a and 85b as shown shaded green on sheet 27 of the streets plan
South Norfolk	Walton Road (B1108)	Between points 86a and 86b as shown shaded green on sheets 27 and 28 of the streets plan
South Norfolk	Market Lane	Between points 87a and 87b as shown shaded green on sheet 28 of the streets plan
South Norfolk	Market Lane	Between points 87c and 87d as shown shaded green on sheet 28 of the streets plan
South Norfolk	Private access track	Between points 88a and 88b as shown shaded brown on sheet 28 of the streets plan
South Norfolk	Private access track	Between points 89a and 89b as shown shaded brown on sheet 28 of the streets plan
South Norfolk	Great Melton Road	Between points 90a and 90b as shown shaded green on sheet 28 of the streets plan
South Norfolk	Great Melton Road	Between points 91a and 91b as shown shaded green on sheets 28 and 29 of the streets plan
South Norfolk	Private access track	Between points 91c and 91d as shown shaded brown on sheets 28 and 29 of the streets plan
South Norfolk	Little Melton Road	Between points 92a and 92b as

		shown shaded green on sheets 28 and 29 of the streets plan
South Norfolk	Burnthouse Lane	Between points 93a and 93b as shown shaded green on sheet 29 of the streets plan
South Norfolk	Burnthouse Lane	Between points 93c and 93d as shown shaded green on sheet 29 of the streets plan
South Norfolk	Burnthouse Lane	Between points 93e and 93f as shown shaded green on sheet 29 of the streets plan
South Norfolk	Private access track	Between points 94a and 94b as shown shaded brown on sheet 29 of the streets plan
South Norfolk	Colney Lane	Between points 95a and 95b as shown shaded green on sheet 29 of the streets plan
South Norfolk	Norwich Road	Between points 96a and 96b as shown shaded green on sheet 30 of the streets plan
South Norfolk	Norwich Road	Between points 96c and 96d as shown shaded green on sheet 30 of the streets plan
South Norfolk	Norwich Road	Between points 96e and 96f as shown shaded green on sheet 30 of the streets plan
South Norfolk	Station Lane	Between points 97a and 97b as shown shaded green on sheet 30 of the streets plan
South Norfolk	Station Lane	Between points 97c and 97d as shown shaded green on sheet 30 of the streets plan
South Norfolk	Private access track	Between points 98c and 98d as shown shaded brown on sheet 30 of the streets plan
South Norfolk	A11	Between points 99a and 99b as shown shaded green on sheet 30 of the streets plan
South Norfolk	Cantley Lane	Between points 100a and 100b as shown shaded green on sheet 31 of the streets plan
South Norfolk	Private access track	Between points 101a and 101b as shown shaded brown on sheet 31 of the streets plan
South Norfolk	Private access track	Between points 102a and 102b as shown shaded brown on sheet 31 of the streets plan
South Norfolk	Intwood Lane	Between points 103a and 103b as shown shaded green on sheet 32 of the streets plan
South Norfolk	Swardeston Lane	Between points 104a and 104b as shown shaded green on sheet 32 of the streets plan
South Norfolk	Main Road	Between points 105a and 105b as shown shaded green on

		sheet 33 of the streets plan
South Norfolk	Mulbarton Road	Between points 105c and 105d as shown shaded green on sheet 33 of the streets plan
South Norfolk	Mangreen Lane	Between points 106a and 106b as shown shaded green on sheets 33 and 34 of the streets plan
South Norfolk	Private access track	Between points 107a and 107b as shown shaded brown on sheets 33 and 34 of the streets plan
South Norfolk	Private access track	Between points 108a, 108b, 108c, 108d and 108e as shown shaded brown on sheet 34 of the streets plan
South Norfolk	Private access track	Between points 109a and 109b as shown shaded brown on sheet 34 of the streets plan
South Norfolk	Private access track	Between points 110a, 110b, 110c and 110d as shown shaded brown on sheet 34 of the streets plan
South Norfolk	Private access track	Between points 111a and 111b as shown shaded brown on sheet 35 of the streets plan

SCHEDULE 4

Article 11

PUBLIC RIGHTS OF WAY TO BE TEMPORARILY STOPPED UP

<i>(1) Area</i>	<i>(2) Public right of way to be temporarily stopped up</i>	<i>(3) Extent of temporary stopping up</i>
North Norfolk District	Footpath Weybourne FP7	Between points 1a and 1b as shown hatched on sheet 1 of the public rights of way plan
North Norfolk District	Restricted Byway Kelling RB4	Between points 2a and 2b as shown hatched on sheet 1 of the public rights of way plan
North Norfolk District	Footpath Kelling FP6	Between points 3a and 3b as shown hatched on sheet 3 of the public rights of way plan
North Norfolk District	Footpath Kelling FP9	Between points 4a and 4b as shown hatched on sheets 3 and 4 of the public rights of way plan
North Norfolk District	Footpath Kelling FP6	Between points 5a and 5b as shown hatched on sheets 3 and 4 of the public rights of way plan
North Norfolk District	Footpath Baconsthorpe FP15	Between points 6a and 6b as shown hatched on sheet 6 of the public rights of way plan
North Norfolk District	Bridleway Hempsted BR15	Between points 7a and 7b as shown hatched on sheet 6 of the public rights of way plan
North Norfolk District	Footpath Hempsted FP10	Between points 8a and 8b as shown hatched on sheet 6 of the public rights of way plan
North Norfolk District	Bridleway Plumstead BR6	Between points 9a and 9b as shown hatched on sheet 8 of the public rights of way plan
North Norfolk District	Restricted Byway RB21	Between points 10a and 10b as shown hatched on sheet 10 of the public rights of way plan
North Norfolk District	Restricted Byway RB21	Between points 11a and 11b as shown hatched on sheet 10 of the public rights of way plan
North Norfolk District	Footpath Corpusty FP20	Between points 12a and 12b as shown hatched on sheet 10 of the public rights of way plan
North Norfolk District	Footpath Corpusty FP19	Between points 13a and 13b as shown hatched on sheet 10 of the public rights of way plan
North Norfolk District	Footpath Corpusty FP2	Between points 14a and 14b as shown hatched on sheet 11 of the public rights of way plan
North Norfolk District	Footpath Corpusty FP2	Between points 15a and 15b as shown hatched on sheet 11 of the public rights of way plan

Broadland District	Footpath Wood Dalling FP3	Between points 16a and 16b as shown hatched on sheet 12 of the public rights of way plan
Broadland District	Bridleway Salle BR4	Between points 17a and 17b as shown hatched on sheet 15 of the public rights of way plan
Broadland District	Footpath Salle FP8	Between points 18a and 18b as shown hatched on sheet 15 of the public rights of way plan
Broadland District	Footpath Salle FP13	Between points 19a and 19b as shown hatched on sheet 15 of the public rights of way plan
Broadland District	Footpath Reepham FP18	Between points 20a and 20b as shown hatched on sheet 16 of the public rights of way plan
Broadland District	Footpath Reepham FP34	Between points 21a and 21b as shown hatched on sheet 16 of the public rights of way plan
Broadland District	Footpath Reepham FP18	Between points 22a and 22b as shown hatched on sheet 16 of the public rights of way plan
Broadland District	Footpath Booton FP1	Between points 23a and 23b as shown hatched on sheet 16 of the public rights of way plan
Broadland District	Footpath Booton FP1	Between points 23c and 23d as shown hatched on sheet 16 of the public rights of way plan
Broadland District	Footpath Booton FP2	Between points 24a and 24b as shown hatched on sheet 17 of the public rights of way plan
Broadland District	Footpath Little Witchingham FP6	Between points 25a and 25b as shown hatched on sheet 18 of the public rights of way plan
Broadland District	Footpath Little Witchingham FP2	Between points 26a and 26b as shown hatched on sheet 19 of the public rights of way plan
South Norfolk	Footpath Little Melton FP2	Between points 27a and 27b as shown hatched on sheet 28 of the public rights of way plan
South Norfolk	Footpath Hethersett FP6	Between points 28a and 28b as shown hatched on sheet 30 of the public rights of way plan
South Norfolk	Bridleway Ketteringham BR2	Between points 29a and 29b as shown hatched on sheet 31 of the public rights of way plan
South Norfolk	Bridleway Ketteringham BR3	Between points 30a and 30b as shown hatched on sheets 31 and 32 of the public rights of way plan
South Norfolk	Footpath East Carleton FP1	Between points 31a and 31b as shown hatched on sheet 32 of the public rights of way plan
South Norfolk	Bridleway Swardeston BR9	Between points 32a and 32b as shown hatched on sheets 33 and 34 of the public rights of

		way plan
South Norfolk	Bridleway Swardeston BR12	Between points 33a and 33b as shown hatched on sheet 34 of the public rights of way plan
South Norfolk	Bridleway Holy Cross BR3	Between points 34a and 34b as shown hatched on sheet 34 of the public rights of way plan

SCHEDULE 5

Article 12

ACCESS TO WORKS

<i>(1) Area</i>	<i>(2) Description of access</i>
North Norfolk District	Vehicular access from A149 to the north towards Roundhill Plantation as shown on sheet 1 of the access to works plan
North Norfolk District	Vehicular access from A149 to the south as shown on sheet 1 of the access to works plan
North Norfolk District	Vehicular access from Holgate Hill to the north as shown on sheets 2 and 3 of the access to works plan
North Norfolk District	Vehicular access from Bridge Road to the east as shown on sheet 3 of the access to works plan
North Norfolk District	Vehicular access from Cromer Road A148 to the north as shown on sheet 4 of the access to works plan
North Norfolk District	Vehicular access from Cromer Road A148 to the south as shown on sheet 4 of the access to works plan
North Norfolk District	Vehicular access from Kelling Road to the north as shown on sheet 4 of the access to works plan
North Norfolk District	Vehicular access from Kelling Road to the south as shown on sheet 4 of the access to works plan
North Norfolk District	Vehicular access from Church Road to the north as shown on sheet 5 of the access to works plan
North Norfolk District	Vehicular access from Church Road to the south as shown on sheet 5 of the access to works plan
North Norfolk District	Vehicular access to the north of Hempstead Road as shown on sheet 6 of the access to works plan
North Norfolk District	Vehicular access to the south of Hempstead Road as shown on sheet 6 of the access to works plan
North Norfolk District	Vehicular access to the north of School Lane as shown on sheet 7 of the access to works plan
North Norfolk District	Vehicular access from Hole Farm Road to the north as shown on sheet 7 of the access to works plan
North Norfolk District	Vehicular access from Hole Farm Road to the south as shown on sheet 7 of the access to works plan
North Norfolk District	Vehicular access from Plumstead Road to the north as shown on sheet 8 of the access to works plan
North Norfolk District	Vehicular access from Plumstead Road to the south as shown on sheet 8 of the access to

	works plan
North Norfolk District	Vehicular access to the north of Little Barningham Lane as shown on sheet 9 of the access to works plan
North Norfolk District	Vehicular access to the south of Little Barningham Lane as shown on sheet 9 of the access to works plan
North Norfolk District	Vehicular access to the north of the B1149 as shown on sheet 10 of the access to works plan
North Norfolk District	Vehicular access to the south of the B1149 as shown on sheet 10 of the access to works plan
North Norfolk District	Vehicular access to the east of the B1149 as shown on sheet 10 of the access to works plan
North Norfolk District	Vehicular access to the north of Briston Road B1354 as shown on sheet 10 of the access to works plan
North Norfolk District	Vehicular access to the south of Briston Road B1354 as shown on sheet 10 of the access to works plan
North Norfolk District	Vehicular access to the west of Croft Lane near Great Farm as shown on sheet 11 of the access to works plan
North Norfolk District	Vehicular access to the north of Town Close Lane as shown on sheet 11 of the access to works plan
North Norfolk District	Vehicular access to the south of Town Close Lane as shown on sheet 11 of the access to works plan
North Norfolk District	Vehicular access to the north of Wood Dalling Road as shown on sheet 11 of the access to works plan
North Norfolk District	Vehicular access to the south of Wood Dalling Road as shown on sheet 11 of the access to works plan
Broadland District	Vehicular access to the north of Blackwater Lane as shown on sheet 12 of the access to works plan
Broadland District	Vehicular access to the south of Blackwater Lane as shown on sheet 12 of the access to works plan
Broadland District	Vehicular access to the north of Heydon Lane as shown on sheet 13 of the access to works plan
Broadland District	Vehicular access to the south of Heydon Lane as shown on sheet 13 of the access to works plan
Broadland District	Vehicular access to the north of Heydon Road as shown on sheet 13 of the access to works plan
Broadland District	Vehicular access to the south of Heydon Road as shown on sheet 13 of the access to works plan
Broadland District	Vehicular access to the north of Reepham Road as shown on sheet 14 of the access to works plan

Broadland District	Vehicular access to the south of Reepham Road as shown on sheet 14 of the access to works plan
Broadland District	Vehicular access to the south west of Reepham Road as shown on sheet 14 of the access to works plan
Broadland District	Vehicular access to the west of Reepham Road on to Merrison's Lane as shown on sheet 15 of the access to works plan
Broadland District	Vehicular access to the north west of Reepham Road as shown on sheet 15 of the access to works plan
Broadland District	Vehicular access to the south east of Reepham Road as shown on sheet 15 of the access to works plan
Broadland District	Vehicular access to the west of Cawston Road as shown on sheet 15 of the access to works plan
Broadland District	Vehicular access to the east of Cawston Road as shown on sheet 15 of the access to works plan
Broadland District	Vehicular access to the north of Marriott's Way as shown on sheet 16 of the access to works plan
Broadland District	Vehicular access to the north of Church Road as shown on sheet 17 of the access to works plan
Broadland District	Vehicular access to the south of Church Road as shown on sheet 17 of the access to works plan
Broadland District	Vehicular access to the north east of Reepham Road as shown on sheet 18 of the access to works plan
Broadland District	Vehicular access to the south west of Reepham Road as shown on sheet 18 of the access to works plan
Broadland District	Vehicular access to the north of Church Farm Lane as shown on sheet 19 of the access to works plan
Broadland District	Vehicular access to the south of Church Church Farm Lane as shown on sheet 19 of the access to works plan
Broadland District	Vehicular access to the north of Hall Road as shown on sheet 19 of the access to works plan
Broadland District	Vehicular access to the south of Hall Road as shown on sheet 19 of the access to works plan
Broadland District	Vehicular access to the south of Hall Road near Alderford as shown on sheet 19 of the access to works plan
Broadland District	Vehicular access to the south of Reepham Road as shown on sheet 20 of the access to works plan
Broadland District	Vehicular access to the west of Station Road to the north of Marriott's Way as shown on sheet 20 of the access to works plan

Broadland District	Vehicular access to the west of Station Road to the south of Marriott's Way as shown on sheet 20 of the access to works plan
Broadland District	Vehicular access to the north east of the Street as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the south west of the Street as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the east of Marl Hill Road as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the north east of the Ringland Lane as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the south west of Ringland Lane as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the north of Ringland Lane as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the south of Ringland Lane as shown on sheet 21 of the access to works plan
Broadland District	Vehicular access to the west of Ringland Lane opposite Oak Grove as shown on sheet 22 of the access to works plan
Broadland District	Vehicular access to the south west of Ringland Lane as shown on sheet 22 of the access to works plan
Broadland District	Vehicular access to the north of Weston Road opposite Breck Barn Cottages as shown on sheet 23 of the access to works plan
Broadland District	Vehicular access to the north of Weston Road as shown on sheet 23 of the access to works plan
Broadland District	Vehicular access to the south of Weston Road as shown on sheet 23 of the access to works plan
Broadland District	Vehicular access to the north west of Honingham Lane as shown on sheet 23 of the access to works plan
Broadland District	Vehicular access to the south east of Honingham Lane as shown on sheet 23 of the access to works plan
Broadland District	Vehicular access to the north of Weston Road as shown on sheet 24 of the access to works plan
Broadland District	Vehicular access to the south of Weston Road as shown on sheet 24 of the access to works plan
South Norfolk	Vehicular access to the north of Church Lane north of the A47 as shown on sheet 25 of the access to works plan
South Norfolk	Vehicular access to the north of Church south

	of the A47 as shown on sheet 25 of the access to works plan
South Norfolk	Vehicular access to the south of Church south of the A47 as shown on sheet 25 of the access to works plan
South Norfolk	Vehicular access to the north of Broom Lane as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to the south of Broom Lane as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to west of Easton Road as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to east of Easton Road as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to the south of Bawburgh Road, on to Bawburgh Road as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to the north of Bawburgh Road as shown on sheet 26 of the access to works plan
South Norfolk	Vehicular access to the north of Bawburgh Road as shown on sheet 27 of the access to works plan
South Norfolk	Vehicular access to the south of Bawburgh Road as shown on sheet 27 of the access to works plan
South Norfolk	Vehicular access to the north of Watton Road as shown on sheets 27 and 28 of the access to works plan
South Norfolk	Vehicular access to the south of Watton Road as shown on sheets 27 and 28 of the access to works plan
South Norfolk	Vehicular access to the north of Market Lane as shown on sheet 28 of the access to works plan
South Norfolk	Vehicular access to the east of Market Lane as shown on sheet 28 of the access to works plan
South Norfolk	Vehicular access to the south of Great Melton Road as shown on sheet 28 of the access to works plan
South Norfolk	Vehicular access to the south of Great Melton Road opposite Freshfields as shown on sheets 28 and 29 of the access to works plan
South Norfolk	Vehicular access to the north west of Little Melton Road as shown on sheets 28 and 29 of the access to works plan
South Norfolk	Vehicular access to the south east of Little Melton Road as shown on sheets 28 and 29 of the access to works plan
South Norfolk	Vehicular access to the north west of Burnthouse Lane as shown on sheet 29 of the access to works plan
South Norfolk	Vehicular access to the south east of Burnthouse Lane as shown on sheet 29 of the access to works plan
South Norfolk	Vehicular access to the east of Burnthouse Lane as shown on sheet 29 of the access to works plan

	plan
South Norfolk	Vehicular access to the east of Burnthouse Lane, to the south of the access referenced above, as shown on sheet 29 of the access to works plan
South Norfolk	Vehicular access to the north of Colney Lane as shown on sheet 29 of the access to works plan
South Norfolk	Vehicular access to the north of Norwich Road as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the north of Norwich Road opposite the access for Wynchwood House as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the south of Norwich Road as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the east of Station Lane as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the east of Station Lane, to the south of the access referenced above as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the east of Station Cottages Service Road as shown on sheet 30 of the access to works plan
South Norfolk	Vehicular access to the west of Intwood Road as shown on sheet 32 of the access to works plan
South Norfolk	Vehicular access to the east of Intwood Road as shown on sheet 32 of the access to works plan
South Norfolk	Vehicular access to the east of Swardeston Lane as shown on sheet 32 of the access to works plan
South Norfolk	Vehicular access to the west of Swardeston Lane to the east of the access referenced above as shown on sheet 32 of the access to works plan
South Norfolk	Vehicular access to the north of Main Road as shown on sheet 33 of the access to works plan
South Norfolk	Vehicular access to south of Main Road as shown on sheet 33 of the access to works plan
South Norfolk	Vehicular access to the north of Mangreen Lane as shown on sheets 33 and 34 of the access to works plan
South Norfolk	Vehicular access to the south of Mangreen Lane as shown on sheets 33 and 34 of the access to works plan
South Norfolk	Vehicular access to the south of Mangreen Hall Lane on to a private access track as shown on sheet 34 of the access to works plan
Broadland District	Vehicular access to the west of Oulton Street as shown on sheet 35 of the access to works plan

SCHEDULE 6

Article 20

LAND IN WHICH ONLY NEW RIGHTS ETC., MAY BE ACQUIRED

<i>(1) Number of land shown on land plans</i>	<i>(2) Purpose for which rights may be acquired</i>
1-001, 1-002, 1-003, 1-004, 1-006, 1-008, 1-017, 1-018, 1-019, 1-022, 1-026, 2-004, 3-001, 3-002, 3-003, 3-004, 3-005, 3-006, 3-011, 3-012, 3-016, 3-017, 3-018, 3-019, 3-022, 3-023, 3-030, 3-031, 4-002, 4-003, 4-004, 4-006, 4-007, 4-009, 4-010, 5-001, 5-002, 5-003, 5-004, 5-006, 5-007, 6-001, 6-002, 6-004, 6-005, 6-006, 7-001A, 7-003, 7-004, 7-005, 7-006, 7-007, 7-009, 8-001, 8-003, 8-005, 8-006, 9-001, 9-005, 9-006, 9-013, 9-016, 9-019, 9-022, 9-026, 10-002, 10-003, 10-005, 10-006, 10-008, 10-009, 11-004, 11-005, 11-006, 11-009, 11-011, 11-013, 11-014, 12-001, 12-004, 12-005, 12-006, 13-001, 13-002, 13-004, 13-006, 14-002, 14-005, 14-006, 14-007, 15-002, 15-006, 15-007, 15-008, 15-009, 15-011, 16-001, 16-002, 16-003, 16-004, 16-005, 16-006, 16-007, 16-012, 16-020, 16-021, 16-025, 16-026, 16-027, 16-028, 16-029, 16-030, 17-002, 17-003, 17-004, 17-006, 17-007, 18-001, 18-002, 18-003, 18-004, 18-005, 18-006, 18-007, 19-001, 19-005, 19-006, 19-007, 19-009, 19-011, 19-012, 19-014, 20-005, 20-008, 20-009, 21-001, 21-002, 21-003, 21-005, 21-006, 21-007, 21-008, 21-010, 21-011, 21-014, 21-015, 21-017, 21-018, 23-001, 23-003, 23-004, 23-009, 23-010, 23-011, 23-012, 23-016, 23-017, 24-003, 24-004, 24-011, 24-012, 25-006, 25-007, 25-008, 25-009, 25-010, 25-011, 25-012, 25-013, 25-015, 25-016, 26-001, 26-005, 26-007, 26-010, 26-011, 26-012, 26-013, 26-014, 26-015, 27-001, 27-002, 27-003, 27-004, 27-008, 27-009, 27-011, 27-012, 28-001, 28-002, 28-003, 28-006, 28-007, 28-009, 28-011, 28-013, 29-003, 29-004, 29-005, 29-006, 29-009, 29-012, 29-013, 29-015, 29-016, 29-017, 30-009, 30-010, 30-011, 30-012, 30-013, 30-014, 30-017, 30-018, 30-023, 30-024, 30-027, 30-028, 30-029, 31-001, 31-002, 31-004, 32-002, 32-003, 32-004, 32-006, 32-007, 32-008, 32-009, 32-010, 33-005, 33-006, 33-016, 33-023, 33-024, 34-001, 34-002, 34-003, 34-004, 34-005, 34-006, 34-007, 34-008, 34-010	New Connection Rights(a) (shown edged red and shaded blue on the Land Plans) required for the construction, operation and maintenance of Work Nos. 6, 7, 8 and 11
1-007, 9-015, 33-007, 33-008, 33-009, 33-010	New Connection Rights and New Construction and Operation Access Rights (shown edged red, shaded blue and hatched brown on the Land Plans) required for the construction, operation and maintenance of Work Nos. 6, 7, 8 and 11

(a) Term as defined in the book of reference.

	and access to Work Nos.6, 7, 8, 9 and 10
34-011	New Connection Rights and New Construction and Maintenance Access Rights (shown edged red, shaded blue and hatched brown on the Land Plans) required for the construction, operation and maintenance of and access to Work Nos. 11 and 12
9-003, 9-007, 9-008, 9-009, 9-010, 9-014, 9-021, 33-011, 33-015, 33-018, 33-019, 33-021	New Connection Rights and New Landscaping Rights (shown edged red, shaded blue and hatched green on the Land Plans) required for the construction, operation and maintenance of Work No. 8 and for landscaping works relating to Work Nos. 9 and 10
1-014, 1-016, 9-017, 9-024, 9-025,10-004, 33-004	New Construction and Operation Access Rights (edged red and shaded brown on the Land Plans) required for access to Work Nos. 6, 7, 9 and 10
3-024, 3-025, 3-026, 3-027, 3-028, 20-006, 20-007, 20,010, 20-011, 21-012, 21-013, 25-003, 25-004, 25-005, 26-002, 26-003, 26-004, 26-016, 26-017, 28-004, 28-005, 30-003, 30-004, 30-005, 30-015, 30-016, 30-021, 30-022, 30-025, 30-026, 34-009, 34-012	New Construction and Maintenance Access Rights (shown edged red and shaded brown on the Land Plans) required for access to Work Nos. 8, 11 and 12
9-002, 9-004, 9-011, 9-020, 9-023, 33-012, 33-013, 33-020, 33-022	New Landscaping Rights (shown edged red and shaded green on the Land Plans) required for landscaping works relating to Work Nos. 9 and 10

MODIFICATION OF COMPENSATION AND COMPULSORY PURCHASE ENACTMENTS FOR CREATION OF NEW RIGHTS

1. The enactments for the time being in force with respect to compensation for the compulsory purchase of land apply, with the necessary modifications as respects compensation, in the case of a compulsory acquisition under this Order of a right by the creation of a new right or the imposition of a restrictive covenant as they apply as respects compensation on the compulsory purchase of land and interests in land.

2.—(1) Without limitation on the scope of paragraph 1, the Land Compensation Act 1973(a) has effect subject to the modifications set out in sub-paragraph (2).

(2) In section 44(1) (compensation for injurious affection), as it applies to compensation for injurious affection under section 7 (measure of compensation in case of severance) of the 1965 Act as substituted by paragraph 4—

- (a) for the words “land is acquired or taken from” there is substituted the words “a right or restrictive covenant over land is purchased from or imposed on”; and
- (b) for the words “acquired or taken from him” there is substituted the words “over which the right is exercisable or the restrictive covenant enforceable”.

3.—(1) Without limitation on the scope of paragraph 1, the 1961 Act has effect subject to the modification set out in sub-paragraph (2).

(2) For section 5A(5A) (relevant valuation date) of the 1961 Act substitute—

“(5A) If—

- (a) the acquiring authority enters on land for the purpose of exercising a right in pursuance of a notice of entry under section 11(1) (powers of entry) of the 1965 Act (as modified by paragraph 7 of Schedule 7 to the Hornsea Three Offshore Wind Farm Order 2020); and
- (b) the acquiring authority is subsequently required by a determination under paragraph 12 of Schedule 2A (counter-notice requiring purchase of land not in notice to treat) to the 1965 Act (as substituted by paragraph 10 of Schedule 7 to the Hornsea Three Offshore Wind Farm Order 2020) to acquire an interest in the land, and
- (c) the acquiring authority enters on and takes possession of that land,

the authority is deemed for the purposes of subsection (3)(a) to have entered on that land where it entered on that land for the purpose of exercising that right.”.

Application of Part 1 (compulsory purchase under Acquisition of Land Act of 1946) of the 1965 Act

4.—(1) The 1965 Act is to have effect with the modifications necessary to make it apply to the compulsory acquisition under this Order of a right by the creation of a new right, or to the imposition under this Order of a restrictive covenant, as it applies to the compulsory acquisition under this Order of land, so that, in appropriate contexts, references in that Act to land are read (according to the requirements of the particular context) as referring to, or as including references to—

- (a) the right acquired or to be acquired, or the restriction imposed or to be imposed; or

(a) 1973 c.26.

(b) the land over which the right is or is to be exercisable, or the restriction is to be enforceable.

(2) Without limitation on the scope of sub-paragraph (1), Part 1 of the 1965 Act applies in relation to the compulsory acquisition under this Order of a right by the creation of a new right or, in relation to the imposition of a restriction, with the modifications specified in the following provisions of this Schedule.

5. For section 7 (measure of compensation in case of severance) of the 1965 Act there is substituted the following section—

“7. In assessing the compensation to be paid by the acquiring authority under this Act, regard shall be had not only to the extent (if any) to which the value of the land over which the right is to be acquired or the restrictive covenant is to be imposed is depreciated by the acquisition of the right or the imposition of the covenant but also to the damage (if any) to be sustained by the owner of the land by reason of its severance from other land of the owner, or injuriously affecting that other land by the exercise of the powers conferred by this or the special Act.”.

6. The following provisions of the 1965 Act (which state the effect of a deed poll executed in various circumstances where there is no conveyance by persons with interests in the land), that is to say—

- (a) section 9(4) (refusal to convey, failure to make title, etc);
- (b) paragraph 10(3) of Schedule 1 (persons without power to sell their interests) conveyance of the land or interest);
- (c) paragraph 2(3) of Schedule 2 (absent and untraced owners); and
- (d) paragraphs 2(3) and 7(2) of Schedule 4 (common land),

are so modified as to secure that, as against persons with interests in the land which are expressed to be overridden by the deed, the right which is to be compulsorily acquired or the restrictive covenant which is to be imposed is vested absolutely in the acquiring authority.

7. Section 11 (powers of entry) of the 1965 Act is so modified as to secure that, as from the date on which the acquiring authority has served notice to treat in respect of any right or restrictive covenant, as well as the notice of entry required by subsection (1) of that section (as it applies to compulsory acquisition under article 18), it has power, exercisable in equivalent circumstances and subject to equivalent conditions, to enter for the purpose of exercising that right or enforcing that restrictive covenant (which is deemed for this purpose to have been created on the date of service of the notice); and sections 11A (powers of entry: further notices of entry), 11B (counter-notice requiring possession to be taken on specified date), 12 (unauthorised entry) and 13 (refusal to give possession to acquiring authority) of the 1965 Act are modified correspondingly.

8. Section 20 (tenants at will, etc.) of the 1965 Act applies with the modifications necessary to secure that persons with such interests in land as are mentioned in that section are compensated in a manner corresponding to that in which they would be compensated on a compulsory acquisition under this Order of that land, but taking into account only the extent (if any) of such interference with such an interest as is actually caused, or likely to be caused, by the exercise of the right or the enforcement of the restrictive covenant in question.

9. Section 22 (interests omitted from purchase) of the 1965 Act as modified by article 22(4) (application of the 1981 Act) is so modified as to enable the acquiring authority, in circumstances corresponding to those referred to in that section, to continue to be entitled to exercise the right acquired or enforce the restrictive covenant imposed, subject to compliance with that section as respects compensation.

10. For Schedule 2A to the 1965 Act substitute—

“SCHEDULE 2A COUNTER-NOTICE REQUIRING PURCHASE OF LAND

Introduction

1.—(1) This Schedule applies where an acquiring authority serve a notice to treat in respect of a right over, or restrictive covenant affecting, the whole or part of a house, building or factory and have not executed a general vesting declaration under section 4 (execution of declaration) of the 1981 Act as applied by article 22 (application of the 1981 Act) of the Hornsea Three Offshore Wind Farm Order 2020 in respect of the land to which the notice to treat relates.

(2) But see article 23(3) (acquisition of subsoil only) of the Hornsea Three Offshore Wind Farm Order 2020 which excludes the acquisition of subsoil only from this Schedule.

2. In this Schedule, “house”, except in paragraph 10, includes any park or garden belonging to a house.

Counter-notice requiring purchase of land

3. A person who is able to sell the house, building or factory (“the owner”) may serve a counter-notice requiring the authority to purchase the owner’s interest in the house, building or factory.

4. A counter-notice under paragraph 3 must be served within the period of 28 days beginning with the day on which the notice to treat was served.

Response to counter-notice

5. On receiving a counter-notice, the acquiring authority must decide whether to—

- (a) withdraw the notice to treat,
- (b) accept the counter-notice, or
- (c) refer the counter-notice to the Upper Tribunal.

6. The authority must serve notice of their decision on the owner within the period of 3 months beginning with the day on which the counter-notice is served (“the decision period”).

7. If the authority decide to refer the counter-notice to the Upper Tribunal they must do so within the decision period.

8. If the authority do not serve notice of a decision within the decision period they are to be treated as if they had served notice of a decision to withdraw the notice to treat at the end of that period.

9. If the authority serve notice of a decision to accept the counter-notice, the compulsory purchase order and the notice to treat are to have effect as if they included the owner’s interest in the house, building or factory.

Determination by the Upper Tribunal

10. On a referral under paragraph 7, the Upper Tribunal must determine whether the acquisition of the right or the imposition of the restrictive covenant would—

- (a) in the case of a house, building or factory, cause material detriment to the house, building or factory, or
- (b) in the case of a park or garden, seriously affect the amenity or convenience of the house to which the park or garden belongs.

- 11.** In making its determination, the Upper Tribunal must take into account—
- (a) the effect of the acquisition of the right or the imposition of the covenant,
 - (b) the use to be made of the right or covenant proposed to be acquired or imposed, and
 - (c) if the right or covenant is proposed to be acquired or imposed for works or other purposes extending to other land, the effect of the whole of the works and the use of the other land.

12. If the Upper Tribunal determines that the acquisition of the right or the imposition of the covenant would have either of the consequences described in paragraph 10, it must determine how much of the house, building or factory the authority ought to be required to take.

13. If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the compulsory purchase order and the notice to treat are to have effect as if they included the owner's interest in that land.

14.—(1) If the Upper Tribunal determines that the authority ought to be required to take some or all of the house, building or factory, the authority may at any time within the period of 6 weeks beginning with the day on which the Upper Tribunal makes its determination withdraw the notice to treat in relation to that land.

(2) If the acquiring authority withdraw the notice to treat under this paragraph they must pay the person on whom the notice was served compensation for any loss or expense caused by the giving and withdrawal of the notice.

(3) Any dispute as to the compensation is to be determined by the Upper Tribunal.”

SCHEDULE 8

Article 26

LAND OF WHICH TEMPORARY POSSESSION MAY BE TAKEN

<i>(1) Area</i>	<i>(2) Number of land shown on land plans</i>	<i>(3) Purpose for which temporary possession may be taken</i>
North Norfolk District	1-005	Temporary use for the passing and re-passing of users of public footpaths to facilitate construction for Work Nos. 5, 6 and 7
North Norfolk District	1-009	Temporary use for access and for the passing and re-passing of users of public footpaths to facilitate construction for Work Nos. 5, 6, 7 and 8
North Norfolk District	1-010	Temporary use for the passing and re-passing of users of public footpaths to facilitate construction for Work Nos. 5, 6 and 7
North Norfolk District	1-011	Temporary use for the passing and re-passing of users of public footpaths to facilitate construction for Work Nos. 5, 6 and 7
North Norfolk District	1-012	Temporary use for access to facilitate construction for Work Nos. 5, 6, 7 and 8
North Norfolk District	1-013	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	1-015	Temporary use (including for access and vehicle holding area) to facilitate construction for Work Nos. 5, 6, 7 and 8
North Norfolk District	1-020	Temporary use (including for access and storage) to facilitate construction for Work No. 8
North Norfolk District	1-021	Temporary use (including for access and storage) to facilitate construction for Work No. 8
North Norfolk District	1-023	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	1-024	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	1-025	Temporary use (including for access and storage) to facilitate construction for Work No. 8
North Norfolk District	2-001	Temporary use (including for storage) to facilitate

		construction for Work No. 8
North Norfolk District	2-002	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	2-003	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	2-005	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	3-007	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-008	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-009	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-010	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-013	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-014	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-015	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	3-020	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	3-021	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	3-029	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	4-001	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	4-005	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	4-008	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	5-005	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	6-003	Temporary use (including for storage) to facilitate construction for Work No. 8

North Norfolk District	7-001	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	7-002	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	7-008	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	8-002	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	8-004	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	9-018	Temporary use (including for storage and access) to facilitate construction for Work Nos. 8 and 9
North Norfolk District	10-001	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	10-007	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	10-010	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	11-001	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	11-002	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	11-003	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	11-007	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	11-008	Temporary use for access to facilitate construction for Work No. 8
North Norfolk District	11-010	Temporary use (including for storage) to facilitate construction for Work No. 8
North Norfolk District	11-012	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	12-002	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	12-003	Temporary use (including for storage) to facilitate construction for Work No. 8

Broadland District	13-003	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	13-005	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	14-001	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	14-003	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	14-004	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	14-008	Temporary use for access to facilitate construction for Work No. 8
Broadland District	14-009	Temporary use for access to facilitate construction for Work No. 8
Broadland District	15-001	Temporary use (including for access and storage) to facilitate construction for Work No. 8
Broadland District	15-003	Temporary use for access to facilitate construction for Work No. 8
Broadland District	15-004	Temporary use for access to facilitate construction for Work No. 8
Broadland District	15-005	Temporary use for access to facilitate construction for Work No. 8
Broadland District	15-010	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	16-008	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-009	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-010	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-011	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-013	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-014	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-015	Temporary use for access to

		facilitate construction for Work No. 8
Broadland District	16-016	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-017	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-018	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-019	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-022	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-023	Temporary use for access to facilitate construction for Work No. 8
Broadland District	16-024	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	17-001	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	17-005	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	19-002	Temporary use for access to facilitate construction for Work No. 8
Broadland District	19-003	Temporary use for access to facilitate construction for Work No. 8
Broadland District	19-004	Temporary use for access to facilitate construction for Work No. 8
Broadland District	19-008	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	19-010	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	19-013	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	19-015	Temporary use for access to facilitate construction for Work No. 8
Broadland District	19-016	Temporary use for access to facilitate construction for Work No. 8
Broadland District	20-001	Temporary use (including for storage) to facilitate

		construction for Work No. 8
Broadland District	20-002	Temporary use for access to facilitate construction for Work No. 8
Broadland District	20-003	Temporary use for access to facilitate construction for Work No. 8
Broadland District	20-004	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	21-004	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	21-009	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	21-016	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	21-019	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	22-001	Temporary use for access to facilitate construction for Work No. 8
Broadland District	22-002	Temporary use for access to facilitate construction for Work No. 8
Broadland District	22-003	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	23-002	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	23-005	Temporary use for access to facilitate construction for Work No. 8
Broadland District	23-006	Temporary use for access to facilitate construction for Work No. 8
Broadland District	23-007	Temporary use for access to facilitate construction for Work No. 8
Broadland District	23-008	Temporary use (including for storage) to facilitate construction for Work No. 8
Broadland District	23-013	Temporary use for access to facilitate construction for Work No. 8
Broadland District	23-014	Temporary use for access to facilitate construction for Work No. 8
Broadland District	23-015	Temporary use for access to facilitate construction for Work No. 8

Broadland District	24-001	Temporary use for access to facilitate construction for Work No. 8
Broadland District	24-002	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	24-005	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	24-006	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	24-007	Temporary use for access to facilitate construction for Work No. 8
Broadland District	24-008	Temporary use for access to facilitate construction for Work No. 8
Broadland District	24-009	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	24-010	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	24-013	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	25-001	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	25-002	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	25-014	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	26-006	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	26-008	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	26-009	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	27-005	Temporary use (including for access and storage) to facilitate construction for Work No. 8
South Norfolk	27-006	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	27-007	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	27-010A	Temporary use (including for

		storage) to facilitate construction for Work No. 8
South Norfolk	27-013	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	28-008	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	28-010	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	28-012	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	28-014	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	29-001	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	29-002	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	29-007	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-008	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-010	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-011	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-014	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-006	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-007	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-008	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-019	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-020	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-030	Temporary use (including for storage) to facilitate

		construction for Work No. 8
South Norfolk	31-003	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-001	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-005	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-011	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	33-001	Temporary use (including for access and storage) to facilitate construction for Work No. 8
South Norfolk	33-002	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	33-003	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	33-017	Temporary use (including for storage) to facilitate construction for Work No. 10
Broadland District	35-001	Temporary use (including for storage) to facilitate construction for Work Nos. 8, 9 10, 11, and 12
Broadland District	35-002	Temporary use for access to facilitate construction for Work Nos. 8, 9 10, 11, and 12
Broadland District	35-003	Temporary use (including for storage, access and vehicle holding area) to facilitate construction for Work Nos. 8, 9 10, 11, and 12
Broadland District	35-004	Temporary use for access to facilitate construction for Work Nos. 8, 9 10, 11, and 12
South Norfolk	29-002	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	29-007	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-008	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-010	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	29-011	Temporary use for access to facilitate construction for Work No. 8

South Norfolk	29-014	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-006	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-007	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-008	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	30-019	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-020	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	30-030	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	31-003	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-001	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-005	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	32-011	Temporary use (including for storage) to facilitate construction for Work No. 8
South Norfolk	33-001	Temporary use (including for access and storage) to facilitate construction for Work No. 8
South Norfolk	33-002	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	33-003	Temporary use for access to facilitate construction for Work No. 8
South Norfolk	33-017	Temporary use (including for storage) to facilitate construction for Work No. 10
Broadland District	35-001	Temporary use (including for storage) to facilitate construction for Work Nos. 6, 7, 8, 9 10, 11, and 12
Broadland District	35-002	Temporary use for access to facilitate construction for Work No. 6, 7, 8, 9 10, 11, and 12
Broadland District	35-003	Temporary use (including for storage, access and vehicle

		holding area) to facilitate construction for Work Nos. 6, 7, 8, 9 10, 11, and 12
Broadland District	35-004	Temporary use for access to facilitate construction for Work Nos. 6, 7, 8, 9 10, 11, and 12

PROTECTIVE PROVISIONS

PART 1

PROTECTION FOR ELECTRICITY, GAS, WATER AND SEWERAGE
UNDERTAKERS**Application**

1. For the protection of the affected undertakers referred to in this Part (save for National Grid which is protected by Part 2 of this Schedule, Cadent Gas Limited which is protected by Part 3 of this Schedule and Anglian Water which is protected by Part 6 of this Schedule) the following provisions must, unless otherwise agreed in writing between the undertaker and the affected undertaking concerned, have effect.

2. In this Part—

“affected undertaker” means

- (a) any licence holder within the meaning of Part 1 (electricity supply) of the 1989 Act;
- (b) a gas transporter within the meaning of Part 1 (gas supply) of the Gas Act 1986(a);
- (c) a water undertaker within the meaning of the Water Industry Act 1991(b);
- (d) a sewerage undertaker within the meaning of Part 1 (preliminary) of the Water Industry Act 1991,

for the area of the authorised development but, for the avoidance of doubt, does not include the undertakers specified in Part 2, Part 3, and Part 6 (National Grid, Cadent Gas Limited and Anglian Water Services Limited) of this Schedule, and in relation to any apparatus, means the undertaker to whom it belongs or by whom it is maintained;

“alternative apparatus” means alternative apparatus adequate to enable the affected undertaker in question to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) in the case of an electricity undertaker, electric lines or electrical plant (as defined in the 1989 Act), belonging to or maintained by that affected undertaker;
- (b) in the case of a gas undertaker, any mains, pipes or other apparatus belonging to or maintained by a gas transporter for the purposes of gas supply;
- (c) in the case of a water undertaker—
 - (i) mains, pipes or other apparatus belonging to or maintained by that affected undertaker for the purposes of water supply; and
 - (ii) any water mains or service pipes (or part of a water main or service pipe) that is the subject of an agreement to adopt made under section 51A (agreements to adopt water main or service pipe at future date) of the Water Industry Act 1991;
- (d) in the case of a sewerage undertaker—
 - (i) any drain or works vested in the affected undertaker in accordance with the Water Industry Act 1991; and

(a) 1986 c.44. A new section 7 was substituted by section 5 of the Gas Act 1995 (c.45), and was further amended by section 76 of the Utilities Act 2000 (c.27).

(b) 1991 c.56.

- (ii) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4) (adoption of sewers and disposal works) of that Act or an agreement to adopt made under section 104 (agreements to adopt sewer, drain or sewerage disposal works, at future date) of that Act,

and includes a sludge main, disposal main (within the meaning of section 219 (general interpretation) of that Act) or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any such sewer, drain or works, and includes any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties; and

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over or upon land.

Precedence of the 1991 Act in respect of apparatus in the streets

3. This Part does not apply to apparatus in respect of which the relations between the undertaker and the affected undertaker are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

No acquisition etc. except by agreement

4. Regardless of any provision in this Order or anything shown on the land plans, the undertaker must not acquire any apparatus otherwise than by agreement.

Removal of apparatus

5.—(1) If, in the exercise of the powers conferred by this Order, the undertaker acquires any interest in any land in which any apparatus is placed, that apparatus must not be removed under this Part and any right of an affected undertaker to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed and is in operation to the reasonable satisfaction of the affected undertaker in question.

(2) If, for the purpose of executing any works in, on or under any land purchased, held, or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to the affected undertaker in question written notice of that requirement, together with a plan and section of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order an affected undertaker reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to the affected undertaker the necessary facilities and rights for the construction of alternative apparatus in other land of the undertaker and subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, the affected undertaker in question must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible use reasonable endeavours to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed.

(4) Any alternative apparatus to be constructed in land of the undertaker under this Part must be constructed in such manner and in such line or situation as may be agreed between the affected undertaker in question and the undertaker or in default of agreement settled by arbitration in accordance with article 37 (arbitration).

(5) The affected undertaker in question must, after the alternative apparatus to be provided or constructed has been agreed or settled by arbitration in accordance with article 37 (arbitration) and after the grant to the affected undertaker of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the

alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part.

(6) Regardless of anything in sub-paragraph (5), if the undertaker gives notice in writing to the affected undertaker in question that it desires itself to execute any work, or part of any work in connection with the construction or removal of apparatus in any land controlled by the undertaker, that work, instead of being executed by the affected undertaker, must be executed by the undertaker without unnecessary delay under the superintendence, if given, and to the reasonable satisfaction of the affected undertaker.

(7) Nothing in sub-paragraph (6) authorises the undertaker to execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within 300 millimetres of the apparatus.

Facilities and rights for alternative apparatus

6.—(1) Where, in accordance with the provisions of this Part, the undertaker affords to an affected undertaker facilities and rights for the construction and maintenance in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and the affected undertaker in question or in default of agreement settled by arbitration in accordance with article 37 (arbitration).

(2) If the facilities and rights to be afforded by the undertaker in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are in the opinion of the arbitrator less favourable on the whole to the affected undertaker in question than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject, the arbitrator must make such provision for the payment of compensation by the undertaker to that affected undertaker as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case.

Retained apparatus

7.—(1) Not less than 28 days before starting the execution of any works of the type referred to in paragraph 5 that are near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 5, the undertaker must submit to the affected undertaker in question a plan, section and description of the works to be executed.

(2) Those works must be executed only in accordance with the plan, section and description submitted under sub-paragraph (1) and in accordance with such reasonable requirements as may be made in accordance with sub-paragraph (3) by the affected undertaker for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and the affected undertaker is entitled to watch and inspect the execution of those works.

(3) Any requirements made by an affected undertaker under sub-paragraph (2) must be made within a period of 21 days beginning with the date on which a plan, section and description under sub-paragraph (1) are submitted to it.

(4) If an affected undertaker in accordance with sub-paragraph (2) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs 1 to 6 apply as if the removal of the apparatus had been required by the undertaker under paragraph 5.

(5) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any works, a new plan, section and description instead of the plan, section and description previously submitted, and having done so the provisions of this paragraph apply to and in respect of the new plan, section and description.

(6) The undertaker is not required to comply with sub-paragraph (1) in a case of emergency but in that case it must give to the affected undertaker in question notice as soon as is reasonably

practicable and a plan, section and description of those works as soon as reasonably practicable subsequently and must comply with sub-paragraph (2) in so far as is reasonably practicable in the circumstances.

8.—(1) Subject to the following provisions of this paragraph, the undertaker must repay to an affected undertaker the reasonable expenses incurred by that affected undertaker in, or in connection with, the inspection, removal, alteration or protection of any apparatus or the construction of any new apparatus which may be required in consequence of the execution of any such works as are referred to in paragraph 5.

(2) There must be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part, that value being calculated after removal.

(3) If in accordance with the provisions of this Part—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, is not determined by arbitration in accordance with article 37 (arbitration) to be necessary, then, if such placing involves cost in the construction of works under this Part exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to the affected undertaker in question by virtue of sub-paragraph (1) must be reduced by the amount of that excess.

(4) For the purposes of sub-paragraph (2)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus is not to be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole is to be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to an affected undertaker in respect of works by virtue of sub-paragraph (1) must, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on the affected undertaker any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Expenses and costs

9.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any such works referred to in paragraph 5, any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of an affected undertaker, or there is any interruption in any service provided, or in the supply of any goods, by any affected undertaker, the undertaker must—

- (a) bear and pay the cost reasonably incurred by that affected undertaker in making good such damage or restoring the supply; and
- (b) make reasonable compensation to that affected undertaker for any other expenses, loss, damages, penalty or costs incurred by the affected undertaker,

by reason or in consequence of any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an affected undertaker, its officers, servants, contractors or agents.

(3) An affected undertaker must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise may be made without the consent of the undertaker which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

10. Nothing in this Part affects the provisions of any enactment or agreement regulating the relations between the undertaker and an affected undertaker in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

PART 2

FOR THE PROTECTION OF NATIONAL GRID AS ELECTRICITY AND GAS UNDERTAKER

Application

1. For the protection of National Grid referred to in this Part the following provisions will, unless otherwise agreed in writing between the undertaker and National Grid, have effect.

Interpretation

2. In this Part—

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of National Grid to enable National Grid to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means—

- (a) electric lines or electrical plant as defined in the Electricity Act 1989, belonging to or maintained by National Grid; and
- (b) any mains, pipes or other apparatus belonging to or maintained by National Grid for the purposes of gas supply,

together with any replacement apparatus and such other apparatus constructed pursuant to the Order that becomes operational apparatus of the undertaker for the purposes of transmission, distribution and/or supply and includes any structure in which apparatus is or must be lodged or which gives or will give access to apparatus;

“authorised development” has the same meaning as in article 2 (interpretation) of this Order (unless otherwise specified) for the purposes of this Part shall include the use and maintenance of the authorised development and construction of any works authorised by this Schedule;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by National Grid (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for National Grid’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of National Grid including construct, use, repair, alter, inspect, renew or remove the apparatus;

“National Grid” means either—

- (a) National Grid Electricity Transmission PLC (Company No. 2366977) whose registered office is at 1-3 Strand, London, WC2N 5EH; or
- (b) National Grid Gas PLC (Company No. 2006000) whose registered office is at 1-3 Strand, London, WC2N 5EH,

or their successor company(ies) as the context requires;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed; and

“specified works” means any of the authorised development or activities undertaken in association with the authorised development which—

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise;
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; or
- (c) include any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (National Grid’s policies for safe working in proximity to gas apparatus “Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties”).

3. Except for paragraphs 4 (apparatus of National Grid in streets subject to temporary stopping up), 9 (retained apparatus: protection of National Grid as gas undertaker), 10 (retained apparatus: protection of National Grid as electricity undertaker), 11 (expenses) and 12 (indemnity) this Schedule does not apply to apparatus in respect of which the relations between the undertaker and National Grid are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

Apparatus of National Grid in streets subject to temporary stopping up

4.—(1) Without prejudice to the generality of any other protection afforded to National Grid elsewhere in the Order, where any street is stopped up under article 10 (temporary stopping up of streets), if National Grid has any apparatus in the street or accessed via that street National Grid will be entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and the undertaker will grant to National Grid, or will procure the granting to National Grid of, legal easements reasonably satisfactory to National Grid in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Notwithstanding the temporary stopping up under the powers of article 10), National Grid will be at liberty at all times to take all necessary access across any such street or to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that street.

Protective works to buildings

5.—(1) The undertaker, in the case of the powers conferred by article 16 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of National Grid which will not unreasonably be withheld and, if by reason of the exercise of those powers any damage to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal or abandonment) or property of National Grid or any interruption in the supply of electricity or gas,

as the case may be, the undertaker must bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and, subject to sub-paragraph (2), shall—

- (a) pay compensation to National Grid for any loss sustained by it; and
- (b) indemnify National Grid against all claims, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from or incurred by National Grid, by reason of any such damage or interruption.

(2) Nothing in this paragraph imposes any liability on the undertaker with respect to any damage or interruption to the extent that such damage or interruption is attributable to the act, neglect or default of National Grid or its contractors or workmen; and National Grid will give to the undertaker reasonable notice of any claim or demand as aforesaid and no settlement or compromise thereof shall be made by National Grid, save in respect of any payment required under a statutory compensation scheme, without first consulting the undertaker and giving the undertaker an opportunity to make representations as to the claim or demand.

Acquisition of land

6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not acquire any land interest or apparatus or override any easement or other interest of National Grid otherwise than by agreement (such agreement not to be unreasonably withheld).

(2) The undertaker and National Grid agree that where there is any inconsistency or duplication between the provisions set out in this Part relating to the relocation and/or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by National Grid as of right or other use in relation to the apparatus, then the provisions in this Schedule shall prevail.

(3) Any agreement or consent granted by National Grid under paragraphs 9 or 10 or any other paragraph of this Part, shall not be taken to constitute agreement under subparagraph 6(1).

Removal of apparatus

7.—(1) If, in the exercise of the agreement reached in accordance with paragraph 6 or in any other authorised manner, the undertaker acquires any interest in any Order land in which any apparatus is placed, that apparatus must not be removed under this Part and any right of National Grid to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of National Grid in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to National Grid 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order National Grid reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to National Grid to its satisfaction (taking into account paragraph 8(1) below) the necessary facilities and rights

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, National Grid must, on receipt of a written notice to

that effect from the undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed save that this obligation shall not extend to the requirement for National Grid to use its compulsory purchase powers to this end unless it elects to so do.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part must be constructed in such manner and in such line or situation as may be agreed between National Grid and the undertaker.

(5) National Grid must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to National Grid of any such facilities and rights as are referred to in sub-paragraph (2) or (3), proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Part, the undertaker affords to or secures National Grid facilities and rights in land for the construction, use, maintenance and protection in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and National Grid and must be no less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by National Grid.

(2) If the facilities and rights to be afforded by the undertaker and agreed with National Grid under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to National Grid than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject in the matter will be referred to arbitration under paragraph 16 (arbitration) and the arbitrator shall make such provision for the payment of compensation by the undertaker to National Grid as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case. In respect of the appointment of an arbitrator under this sub-paragraph, article 37 (arbitration) of the Order shall apply.

Retained apparatus: protection of National Grid as Gas Undertaker

9.—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to National Grid a plan and, if reasonably required by National Grid, a ground monitoring scheme in respect of those works.

(2) The plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant etc.;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) intended maintenance regimes.

(3) The undertaker must not commence any works to which sub-paragraphs (1) and (2) applies until National Grid has given written approval of the plan so submitted.

(4) Any approval of National Grid required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (5) or (7); and,

(b) must not be unreasonably withheld.

(5) In relation to a work to which sub-paragraphs (1) and (2) applies, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraphs (1) and (2) or as relevant sub-paragraph (5), as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5), (7) or (8) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid shall be entitled to watch and inspect the execution of those works.

(7) Where National Grid requires protective works to be carried out either by itself or by the undertaker (whether of a temporary or permanent nature) such protective works, must be carried out to National Grid's satisfaction prior to the commencement of any authorised development (or any relevant part thereof) to which sub-paragraph (1) applies and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraph (1) or (2) (except in an emergency).

(8) If National Grid in accordance with sub-paragraph (5) or (7) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, sub-paragraphs (1) to (3) and (6) to (7) apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(9) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works comprising the authorised development, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph will apply to and in respect of the new plan.

(10) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

(a) comply with sub-paragraphs (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and

(b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under the Order the undertaker must comply with National Grid's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" and the Health and Safety Executive's "HSG47 Avoiding danger from underground services".

(12) As soon as reasonably practicable after any ground subsidence event attributable to the authorised development the undertaker shall implement an appropriate ground mitigation scheme save that National Grid retains the right to carry out any further necessary protective works for the safeguarding of its apparatus and can recover any such costs in line with paragraphs 11 and 12.

Retained apparatus: Protection of National Grid as Electricity Undertaker

10.—(1) Not less than 56 days before the commencement of any authorised development that is near to, or will or may affect, any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise and to which paragraph 7(2)(a) or 7(2)(b) applies, the undertaker must submit to National Grid a plan and seek from National Grid details of the underground extent of their electricity tower foundations.

(2) In relation to works which will or may be situated on, over, under or within—

(a) 15 metres measured in any direction of any apparatus, or

(b) involve embankment works within 15 metres of any apparatus,

the plan to be submitted to National Grid under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus;
- (f) any intended maintenance regimes; and
- (g) an assessment of risks of rise of earth issues.

(3) In relation to any works which will or may be situated on, over, under or within 10 metres of any part of the foundations of an electricity tower or between any two or more electricity towers, the plan to be submitted under sub-paragraph (1) must in addition to the matters set out in sub-paragraph (2) include a method statement describing-

- (a) details of any cable trench design including route, dimensions, clearance to pylon foundations;
- (b) demonstration that pylon foundations will not be affected prior to, during and post construction;
- (c) details of load bearing capacities of trenches;
- (d) details of cable installation methodology including access arrangements, jointing bays and backfill methodology;
- (e) a written management plan for high voltage hazard during construction and ongoing maintenance of the cable route;
- (f) written details of the operations and maintenance regime for the cable, including frequency and method of access;
- (g) assessment of earth rise potential if reasonably required by National Grid's engineers; and
- (h) evidence that trench bearing capacity is to be designed to 26 tonnes to take the weight of overhead line construction traffic.

(4) The undertaker must not commence any works to which sub-paragraph (1), (2), or (3) applies until National Grid has given written approval of the plan so submitted.

(5) Any approval of National Grid required under sub-paragraph (1), (2), or (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraph (6) or (8); and
- (b) must not be unreasonably withheld.

(6) In relation to a work to which sub-paragraph (1), (2), or (3) applies, National Grid may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(7) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraph (1) or as relevant sub-paragraph (2), (3) or (6) as approved or as amended from time to time by agreement between the undertaker and National Grid and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5), (6), (8) or (9) by National Grid for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and National Grid will be entitled to watch and inspect the execution of those works.

(8) Where National Grid require any protective works to be carried out either by themselves or by the undertaker (whether of a temporary or permanent nature) such protective works must be carried out to National Grid's satisfaction prior to the commencement of any authorised development (or any relevant part thereof) to which sub-paragraph (1) applies and National Grid must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraphs (1),(2), (3)or (6) (except in an emergency).

(9) If National Grid in accordance with sub-paragraphs (6) or (8) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, paragraphs (1) to (3) and (6) to (7) shall apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(10) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any work, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph shall apply to and in respect of the new plan.

(11) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to National Grid notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraphs (6), (7) and (8) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (12) at all times.

(12) At all times when carrying out any works authorised under the Order, the undertaker must comply with National Grid's policies for development near overhead lines ENA TA 43-8 and the Health and Safety Executive's guidance note 6 "Avoiding danger from overhead power lines".

Expenses

11.—(1) Subject to the following provisions of this paragraph, the undertaker shall pay to National Grid on demand all charges, costs and expenses reasonably anticipated or incurred by National Grid in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new apparatus or alternative apparatus which may be required in consequence of the execution of any such works as are referred to in this Part including without limitation—

- (a) any costs reasonably incurred or compensation properly paid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that National Grid elects to use compulsory purchase powers to acquire any necessary rights under paragraph 7(3);
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works; and
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement settled by arbitration in accordance with article 37 (arbitration) of the Order to be

necessary, then, if such placing involves cost in the construction of works under this Part exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to National Grid by virtue of sub-paragraph (1) will be reduced by the amount of that excess save where it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to National Grid in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on National Grid any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

12.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works (including without limitation works carried out by the undertaker under this Part or any subsidence resulting from any of these works), any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purpose of those works) or property of National Grid, or there is any interruption in any service provided, or in the supply of any goods, by National Grid, or National Grid becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand the cost reasonably incurred by National Grid in making good such damage or restoring the supply; and
- (b) indemnify National Grid for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from National Grid, by reason or in consequence of any such damage or interruption or National Grid becoming liable to any third party as aforesaid.

(2) The fact that any act or thing may have been done by National Grid on behalf of the undertaker or in accordance with a plan approved by National Grid or in accordance with any requirement of National Grid as a consequence of the authorised development or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of this sub-paragraph (2) where the undertaker fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a manner that does not materially accord with the approved plan or as otherwise agreed between the undertaker and National Grid.

(3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—

- (a) any damage or interruption to the extent that it is attributable to the neglect or default of National Grid, its officers, servants, contractors or agents; and
- (b) any authorised development or any other works authorised by this Part carried out by National Grid as an assignee, transferee or lessee of the undertaker with the benefit of this Order pursuant to section 156 of the 2008 Act or article 5(b) (benefit of the Order) of this Order subject to the proviso that once such works become apparatus (“new apparatus”),

any works yet to be executed and not falling within this sub-paragraph 12(3)(b) will be subject to the full terms of this Part including this paragraph 12 in respect of such new apparatus.

(4) National Grid must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made, unless payment is required in connection with a statutory compensation scheme without first consulting the undertaker and considering its representations.

Enactments and agreements

13. Save to the extent provided for to the contrary elsewhere in this Part or by agreement in writing between the undertaker and National Grid, nothing in this Part shall affect the provisions of any enactment or agreement regulating the relations between the undertaker and National Grid in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

14.—(1) Where in consequence of the proposed construction of any of the authorised development, the undertaker or National Grid requires the removal of apparatus under paragraph 7(2) or National Grid makes requirements for the protection or alteration of apparatus under paragraphs 9 or 10, National Grid shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of National Grid's undertaking and National Grid shall use its best endeavours to co-operate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever National Grid's consent, agreement or approval to is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by National Grid is required, it must not be unreasonably withheld or delayed.

Access

15. If in consequence of the agreement reached in accordance with paragraph 6 or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable National Grid to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

16. Save for differences or disputes arising under paragraphs 7(2), 7(4), 8(1), 9 and 10 any difference or dispute arising between the undertaker and National Grid under this Part must, unless otherwise agreed in writing between the undertaker and National Grid, be determined by arbitration in accordance with article 37 (arbitration).

Notices

17. The plans submitted to National Grid by the undertaker pursuant to paragraphs 9(1) and 10(1) must be sent to National Grid Plant Protection at **plantprotection@nationalgrid.com** or such other address as National Grid may from time to time appoint instead for that purpose and notify to the undertaker in writing.

PART 3

FOR THE PROTECTION OF CADENT GAS LIMITED AS GAS UNDERTAKER

Application

1. For the protection of Cadent Gas Limited referred to in this Part the following provisions will, unless otherwise agreed in writing between the undertaker and Cadent Gas Limited, have effect.

Interpretation

2. In this Part—

“alternative apparatus” means appropriate alternative apparatus to the satisfaction of Cadent Gas Limited to enable Cadent Gas Limited to fulfil its statutory functions in a manner no less efficient than previously;

“apparatus” means any mains, pipes or other apparatus belonging to or maintained by Cadent Gas Limited for the purposes of gas supply together with any replacement apparatus and such other apparatus constructed pursuant to the Order that becomes operational apparatus of the undertaker for the purposes of transmission, distribution or supply and includes any structure in which apparatus is or must be lodged or which gives or will give access to apparatus;

“authorised development” has the same meaning as in article 2 (interpretation) of this Order (unless otherwise specified) for the purposes of this Part shall include the use and maintenance of the authorised development and construction of any works authorised by this Schedule;

“Cadent Gas Limited” means Cadent Gas Limited, with Company Registration Number 10080864, whose registered office is at Ashbrook Court Prologis Park, Central Boulevard, Coventry, CV7 8PE;

“functions” includes powers and duties;

“ground mitigation scheme” means a scheme approved by Cadent Gas Limited (such approval not to be unreasonably withheld or delayed) setting out the necessary measures (if any) for a ground subsidence event;

“ground monitoring scheme” means a scheme for monitoring ground subsidence which sets out the apparatus which is to be subject to such monitoring, the extent of land to be monitored, the manner in which ground levels are to be monitored, the timescales of any monitoring activities and the extent of ground subsidence which, if exceeded, shall require the undertaker to submit for Cadent Gas Limited’s approval a ground mitigation scheme;

“ground subsidence event” means any ground subsidence identified by the monitoring activities set out in the ground monitoring scheme that has exceeded the level described in the ground monitoring scheme as requiring a ground mitigation scheme;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over, across, along or upon such land;

“maintain” and “maintenance” shall include the ability and right to do any of the following in relation to any apparatus or alternative apparatus of the undertaker including construct, use, repair, alter, inspect, renew or remove the apparatus;

“plan” or “plans” include all designs, drawings, specifications, method statements, soil reports, programmes, calculations, risk assessments and other documents that are reasonably necessary properly and sufficiently to describe and assess the works to be executed; and

“specified works” means any of the authorised development or activities undertaken in association with the authorised development which—

- (a) will or may be situated over, or within 15 metres measured in any direction of any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise;
- (b) may in any way adversely affect any apparatus the removal of which has not been required by the undertaker under paragraph 7(2) or otherwise; or

- (c) include any of the activities that are referred to in paragraph 8 of T/SP/SSW/22 (Cadent Gas Limited’s policies for safe working in proximity to gas apparatus “Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties”).

3. Except for paragraphs 4 (apparatus of Cadent Gas Limited in streets subject to temporary stopping up), 9 (retained apparatus: protection of Cadent Gas Limited as gas undertaker), 10 (expenses) and 11 (indemnity) of this Schedule which will apply in respect of the exercise of all or any powers under the Order affecting the rights and apparatus of Cadent Gas Limited, the other provisions of this Schedule do not apply to apparatus in respect of which the relations between the undertaker and Cadent Gas Limited are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

Apparatus of Cadent Gas Limited in streets subject to temporary stopping up

4.—(1) Without prejudice to the generality of any other protection afforded to Cadent Gas Limited elsewhere in the Order, where any street is stopped up under article 10 (temporary stopping up of streets), if Cadent Gas Limited has any apparatus in the street or accessed via that street Cadent Gas Limited will be entitled to the same rights in respect of such apparatus as it enjoyed immediately before the stopping up and the undertaker will grant to Cadent Gas Limited, or will procure the granting to Cadent Gas Limited of, legal easements reasonably satisfactory to Cadent Gas Limited in respect of such apparatus and access to it prior to the stopping up of any such street or highway.

(2) Notwithstanding the temporary stopping up under the powers of article 10, Cadent Gas Limited will be at liberty at all times to take all necessary access across any such street and/or to execute and do all such works and things in, upon or under any such street as may be reasonably necessary or desirable to enable it to maintain any apparatus which at the time of the stopping up or diversion was in that street.

Protective works to buildings

5.—(1) The undertaker, in the case of the powers conferred by article 16 (protective work to buildings), must exercise those powers so as not to obstruct or render less convenient the access to any apparatus without the written consent of Cadent Gas Limited which will not unreasonably be withheld and, if by reason of the exercise of those powers any damage to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal or abandonment) or property of Cadent Gas Limited or any interruption in the supply of gas, the undertaker must bear and pay on demand the cost reasonably incurred by Cadent Gas Limited in making good such damage or restoring the supply; and, subject to sub-paragraph (2), shall—

- (a) pay compensation to Cadent Gas Limited for any loss sustained by it; and
- (b) indemnify Cadent Gas Limited against all claims, demands, proceedings, costs, damages and expenses which may be made or taken against or recovered from or incurred by Cadent Gas Limited, by reason of any such damage or interruption.

(2) Nothing in this paragraph imposes any liability on the undertaker with respect to any damage or interruption to the extent that such damage or interruption is attributable to the act, neglect or default of Cadent Gas Limited or its contractors or workmen; and Cadent Gas Limited will give to the undertaker reasonable notice of any claim or demand as aforesaid and no settlement or compromise thereof shall be made by Cadent Gas Limited, save in respect of any payment required under a statutory compensation scheme, without first consulting the undertaker and giving the undertaker an opportunity to make representations as to the claim or demand.

Acquisition of land

6.—(1) Regardless of any provision in this Order or anything shown on the land plans or contained in the book of reference to the Order, the undertaker may not acquire any land interest

or apparatus or override any easement or other interest of Cadent Gas Limited otherwise than by agreement (such agreement not to be unreasonably withheld).

(2) The undertaker and Cadent Gas Limited agree that where there is any inconsistency or duplication between the provisions set out in this Part relating to the relocation or removal of apparatus (including but not limited to the payment of costs and expenses relating to such relocation and/or removal of apparatus) and the provisions of any existing easement, rights, agreements and licences granted, used, enjoyed or exercised by Cadent Gas Limited as of right or other use in relation to the apparatus, then the provisions in this Part shall prevail.

(3) Any agreement or consent granted by Cadent Gas Limited under paragraph 9 or any other paragraph of this Part, shall not be taken to constitute agreement under sub-paragraph 6(1).

Removal of apparatus

7.—(1) If, in the exercise of the agreement reached in accordance with paragraph 6 or in any other authorised manner, the undertaker acquires any interest in any Order land in which any apparatus is placed, that apparatus must not be removed under this Part and any right of Cadent Gas Limited to maintain that apparatus in that land must not be extinguished until alternative apparatus has been constructed, and is in operation to the reasonable satisfaction of Cadent Gas Limited in accordance with sub-paragraphs (2) to (5) inclusive.

(2) If, for the purpose of executing any works comprised in the authorised development in, on, under or over any land purchased, held, appropriated or used under this Order, the undertaker requires the removal of any apparatus placed in that land, it must give to Cadent Gas Limited 56 days' advance written notice of that requirement, together with a plan of the work proposed, and of the proposed position of the alternative apparatus to be provided or constructed and in that case (or if in consequence of the exercise of any of the powers conferred by this Order Cadent Gas Limited reasonably needs to remove any of its apparatus) the undertaker must, subject to sub-paragraph (3), afford to Cadent Gas Limited to its satisfaction (taking into account paragraph 8(1) below) the necessary facilities and rights

- (a) for the construction of alternative apparatus in other land of or land secured by the undertaker; and
- (b) subsequently for the maintenance of that apparatus.

(3) If alternative apparatus or any part of such apparatus is to be constructed elsewhere than in other land of or land secured by the undertaker, or the undertaker is unable to afford such facilities and rights as are mentioned in sub-paragraph (2), in the land in which the alternative apparatus or part of such apparatus is to be constructed, Cadent Gas Limited must, on receipt of a written notice to that effect from the undertaker, take such steps as are reasonable in the circumstances in an endeavour to obtain the necessary facilities and rights in the land in which the alternative apparatus is to be constructed, save that this obligation shall not extend to the requirement for Cadent Gas Limited to use its compulsory purchase powers to this end unless it elects to do so.

(4) Any alternative apparatus to be constructed in land of or land secured by the undertaker under this Part must be constructed in such manner and in such line or situation as may be agreed between Cadent Gas Limited and the undertaker.

(5) Cadent Gas Limited must, after the alternative apparatus to be provided or constructed has been agreed, and subject to the grant to Cadent Gas Limited of any such facilities and rights as are referred to in sub-paragraph (2) or (3), then proceed without unnecessary delay to construct and bring into operation the alternative apparatus and subsequently to remove any apparatus required by the undertaker to be removed under the provisions of this Part.

Facilities and rights for alternative apparatus

8.—(1) Where, in accordance with the provisions of this Part, the undertaker affords to or secures for Cadent Gas Limited facilities and rights in land for the construction, use, maintenance and protection in land of the undertaker of alternative apparatus in substitution for apparatus to be removed, those facilities and rights must be granted upon such terms and conditions as may be agreed between the undertaker and Cadent Gas Limited and must be no less favourable on the

whole to Cadent Gas Limited than the facilities and rights enjoyed by it in respect of the apparatus to be removed unless agreed by Cadent Gas Limited.

(2) If the facilities and rights to be afforded by the undertaker and agreed with Cadent Gas Limited under sub-paragraph (1) above in respect of any alternative apparatus, and the terms and conditions subject to which those facilities and rights are to be granted, are less favourable on the whole to Cadent Gas Limited than the facilities and rights enjoyed by it in respect of the apparatus to be removed and the terms and conditions to which those facilities and rights are subject in the matter will be referred to arbitration in accordance with paragraph 15 (arbitration) and the arbitrator shall make such provision for the payment of compensation by the undertaker to Cadent Gas Limited as appears to the arbitrator to be reasonable having regard to all the circumstances of the particular case. In respect of the appointment of an arbitrator under this sub-paragraph article 37 (arbitration) of this Order shall apply.

Retained apparatus: protection of Cadent Gas Limited as Gas Undertaker

9.—(1) Not less than 56 days before the commencement of any specified works the undertaker must submit to Cadent Gas Limited a plan and, if reasonably required by Cadent Gas Limited, a ground monitoring scheme in respect of those works.

(2) The plan to be submitted to Cadent Gas Limited under sub-paragraph (1) must include a method statement and describe—

- (a) the exact position of the works;
- (b) the level at which these are proposed to be constructed or renewed;
- (c) the manner of their construction or renewal including details of excavation, positioning of plant etc;
- (d) the position of all apparatus;
- (e) by way of detailed drawings, every alteration proposed to be made to or close to any such apparatus; and
- (f) intended maintenance regimes.

(3) The undertaker must not commence any works to which sub-paragraphs (1) and (2) applies until Cadent Gas Limited has given written approval of the plan so submitted.

(4) Any approval of Cadent Gas Limited required under sub-paragraph (3)—

- (a) may be given subject to reasonable conditions for any purpose mentioned in sub-paragraphs (5) or (7); and
- (b) must not be unreasonably withheld.

(5) In relation to a work to which sub-paragraphs (1) and (2) apply, Cadent Gas Limited may require such modifications to be made to the plans as may be reasonably necessary for the purpose of securing its apparatus against interference or risk of damage or for the purpose of providing or securing proper and convenient means of access to any apparatus.

(6) Works to which this paragraph applies must only be executed in accordance with the plan, submitted under sub-paragraphs (1) and (2) or, as relevant, sub-paragraph (5), as amended from time to time by agreement between the undertaker and Cadent Gas Limited and in accordance with such reasonable requirements as may be made in accordance with sub-paragraphs (5), (7) or (8) by Cadent Gas Limited for the alteration or otherwise for the protection of the apparatus, or for securing access to it, and Cadent Gas Limited shall be entitled to watch and inspect the execution of those works.

(7) Where Cadent Gas Limited requires protective works to be carried out either by themselves or by the undertaker by itself (whether of a temporary or permanent nature) such protective works, must be carried out to Cadent Gas Limited's satisfaction prior to the commencement of any authorised development (or any relevant part thereof) to which sub-paragraph (1) applies and Cadent Gas Limited must give 56 days' notice of such works from the date of submission of a plan in line with sub-paragraph (1) or (2) (except in an emergency).

(8) If Cadent Gas Limited in accordance with sub-paragraph (5) or (7) and in consequence of the works proposed by the undertaker, reasonably requires the removal of any apparatus and gives written notice to the undertaker of that requirement, sub-paragraphs (1) to (3) and (6) to (7) apply as if the removal of the apparatus had been required by the undertaker under paragraph 7(2).

(9) Nothing in this paragraph shall preclude the undertaker from submitting at any time or from time to time, but in no case less than 56 days before commencing the execution of any works comprising the authorised development, a new plan, instead of the plan previously submitted, and having done so the provisions of this paragraph will apply to and in respect of the new plan.

(10) The undertaker will not be required to comply with sub-paragraph (1) where it needs to carry out emergency works as defined in the 1991 Act but in that case it must give to Cadent Gas Limited notice as soon as is reasonably practicable and a plan of those works and must—

- (a) comply with sub-paragraphs (5), (6) and (7) insofar as is reasonably practicable in the circumstances; and
- (b) comply with sub-paragraph (11) at all times.

(11) At all times when carrying out any works authorised under the Order the undertaker must comply with Cadent Gas Limited's policies for safe working in proximity to gas apparatus "Specification for safe working in the vicinity of National Grid, High pressure Gas pipelines and associated installation requirements for third parties T/SP/SSW22" and Health and Safety Executive's "HSG47 Avoiding danger from underground services".

(12) As soon as reasonably practicable after any ground subsidence event attributable to the authorised development the undertaker shall implement an appropriate ground mitigation scheme save that Cadent Gas Limited retains the right to carry out any further necessary protective works for the safeguarding of its apparatus and can recover any such costs in line with paragraph 10.

Expenses

10.—(1) Subject to the following provisions of this paragraph, the undertaker shall pay to Cadent Gas Limited on demand all charges, costs and expenses reasonably anticipated or incurred by Cadent Gas Limited in, or in connection with, the inspection, removal, relaying or replacing, alteration or protection of any apparatus or the construction of any new apparatus or alternative apparatus which may be required in consequence of the execution of any such works as are referred to in this Part including without limitation—

- (a) any costs reasonably incurred or compensation properly paid in connection with the acquisition of rights or the exercise of statutory powers for such apparatus including without limitation in the event that Cadent Gas Limited elects to use compulsory purchase powers to acquire any necessary rights under paragraph 7(3);
- (b) in connection with the cost of the carrying out of any diversion work or the provision of any alternative apparatus;
- (c) the cutting off of any apparatus from any other apparatus or the making safe of redundant apparatus;
- (d) the approval of plans;
- (e) the carrying out of protective works, plus a capitalised sum to cover the cost of maintaining and renewing permanent protective works; and
- (f) the survey of any land, apparatus or works, the inspection and monitoring of works or the installation or removal of any temporary works reasonably necessary in consequence of the execution of any such works referred to in this Part.

(2) There will be deducted from any sum payable under sub-paragraph (1) the value of any apparatus removed under the provisions of this Part and which is not re-used as part of the alternative apparatus, that value being calculated after removal.

(3) If in accordance with the provisions of this Part—

- (a) apparatus of better type, of greater capacity or of greater dimensions is placed in substitution for existing apparatus of worse type, of smaller capacity or of smaller dimensions; or
- (b) apparatus (whether existing apparatus or apparatus substituted for existing apparatus) is placed at a depth greater than the depth at which the existing apparatus was situated,

and the placing of apparatus of that type or capacity or of those dimensions or the placing of apparatus at that depth, as the case may be, is not agreed by the undertaker or, in default of agreement, by arbitration in accordance with article 37 (arbitration) of this Order to be necessary, then, if such placing involves cost in the construction of works under this Part exceeding that which would have been involved if the apparatus placed had been of the existing type, capacity or dimensions, or at the existing depth, as the case may be, the amount which apart from this sub-paragraph would be payable to Cadent Gas Limited by virtue of sub-paragraph (1) will be reduced by the amount of that excess save where it is not possible in the circumstances to obtain the existing type of apparatus at the same capacity and dimensions or place at the existing depth in which case full costs will be borne by the undertaker.

(4) For the purposes of sub-paragraph (3)—

- (a) an extension of apparatus to a length greater than the length of existing apparatus will not be treated as a placing of apparatus of greater dimensions than those of the existing apparatus; and
- (b) where the provision of a joint in a pipe or cable is agreed, or is determined to be necessary, the consequential provision of a jointing chamber or of a manhole will be treated as if it also had been agreed or had been so determined.

(5) An amount which apart from this sub-paragraph would be payable to Cadent Gas Limited in respect of works by virtue of sub-paragraph (1) will, if the works include the placing of apparatus provided in substitution for apparatus placed more than 7 years and 6 months earlier so as to confer on Cadent Gas Limited any financial benefit by deferment of the time for renewal of the apparatus in the ordinary course, be reduced by the amount which represents that benefit.

Indemnity

11.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any works authorised by this Part or in consequence of the construction, use, maintenance or failure of any of the authorised development by or on behalf of the undertaker or in consequence of any act or default of the undertaker (or any person employed or authorised by him) in the course of carrying out such works, including without limitation works carried out by the undertaker under this Part or any subsidence resulting from any of these works, any damage is caused to any apparatus or alternative apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purpose of those works) or property of Cadent Gas Limited, or there is any interruption in any service provided, or in the supply of any goods, by Cadent Gas Limited, or Cadent Gas Limited becomes liable to pay any amount to any third party, the undertaker will—

- (a) bear and pay on demand the cost reasonably incurred by Cadent Gas Limited in making good such damage or restoring the supply; and
- (b) indemnify Cadent Gas Limited for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from Cadent Gas Limited, by reason or in consequence of any such damage or interruption or Cadent Gas Limited becoming liable to any third party as aforesaid.

(2) The fact that any act or thing may have been done by Cadent Gas Limited on behalf of the undertaker or in accordance with a plan approved by Cadent Gas Limited or in accordance with any requirement of Cadent Gas Limited as a consequence of the authorised development or under its supervision will not (unless sub-paragraph (3) applies), excuse the undertaker from liability under the provisions of sub-paragraph (1) where the undertaker fails to carry out and execute the works properly with due care and attention and in a skilful and workman like manner or in a

manner that does not materially accord with the approved plan or as otherwise agreed between the undertaker and Cadent Gas Limited.

- (3) Nothing in sub-paragraph (1) shall impose any liability on the undertaker in respect of—
- (a) any damage or interruption to the extent that it is attributable to the neglect or default of Cadent Gas Limited, its officers, servants, contractors or agents; and
 - (b) any authorised development or any other works authorised by this Part carried out by Cadent Gas Limited as an assignee, transferee or lessee of Cadent Gas Limited with the benefit of this Order pursuant to section 156 of the 2008 Act or article 5 (benefit of the Order) of this Order subject to the proviso that once such works become apparatus (“new apparatus”), any works yet to be executed and not falling within this sub-paragraph (b) will be subject to the full terms of this Part including this paragraph 11 in respect of such new apparatus.
- (4) Cadent Gas Limited must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made unless payment is required in connection with a statutory compensation scheme, without first consulting the undertaker and considering its representations.
- (5) Cadent Gas Limited must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 11 applies. If requested to do so by the undertaker, Cadent Gas Limited shall provide an explanation of how the claim has been minimised. The undertaker shall only be liable under this paragraph 11 for claims reasonably incurred by Cadent Gas Limited.

Enactments and agreements

12. Save to the extent provided for to the contrary elsewhere in this Part or by agreement in writing between Cadent Gas Limited and the undertaker, nothing in this Part shall affect the provisions of any enactment or agreement regulating the relations between the undertaker and Cadent Gas Limited in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

Co-operation

13.—(1) Where in consequence of the proposed construction of any of the authorised development, the undertaker or Cadent Gas Limited requires the removal of apparatus under paragraph 7(2) or Cadent Gas Limited makes requirements for the protection or alteration of apparatus under paragraph 9, the undertaker shall use its best endeavours to co-ordinate the execution of the works in the interests of safety and the efficient and economic execution of the authorised development and taking into account the need to ensure the safe and efficient operation of Cadent Gas Limited’s undertaking and Cadent Gas Limited shall use its best endeavours to co-operate with the undertaker for that purpose.

(2) For the avoidance of doubt whenever Cadent Gas Limited’s consent, agreement or approval to is required in relation to plans, documents or other information submitted by the undertaker or the taking of action by Cadent Gas Limited, it must not be unreasonably withheld or delayed.

Access

14. If in consequence of the agreement reached in accordance with paragraph 6 or the powers granted under this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable Cadent Gas Limited to maintain or use the apparatus no less effectively than was possible before such obstruction.

Arbitration

15. Save for differences or disputes arising under paragraph 7(2), 7(4), 8(1), 9 and 11(5) any difference or dispute arising between the undertaker and Cadent Gas Limited under this Part must,

unless otherwise agreed in writing between the undertaker and Cadent Gas Limited, be determined by arbitration in accordance with article 37 (arbitration).

Notices

16. The plans submitted to Cadent Gas Limited by the undertaker pursuant to paragraph 9(1) must be sent to Cadent Gas Limited Plant Protection at plantprotection@cadentgas.com or such other address as Cadent Gas Limited may, in writing, from time to time appoint instead for that purpose and notify to the undertaker.

PART 4

PROTECTION FOR OPERATORS OF ELECTRONIC COMMUNICATIONS CODE NETWORKS

1.—(1) For the protection of any operator, the following provisions, unless otherwise agreed in writing between the undertaker and the operator, have effect.

2. In this Part—

“the 2003 Act” means the Communications Act 2003(a);

“conduit system” has the same meaning as in the electronic communications code and references to providing a conduit system is construed in accordance with paragraph 1(3A) of that code;

“electronic communications apparatus” has the same meaning as in the electronic communications code;

“the electronic communications code” has the same meaning as in Chapter 1 of Part 2 (networks, services and the radio spectrum) of the 2003 Act(b);

“electronic communications code network” means—

(a) so much of an electronic communications network or conduit system provided by an electronic communications code operator as is not excluded from the application of the electronic communications code by a direction under section 106 (application of the electronic communications code) of the 2003 Act; and

(b) an electronic communications network which the Secretary of State is providing or proposing to provide;

“electronic communications code operator” means a person in whose case the electronic communications code is applied by a direction under section 106 of the 2003 Act; and

“operator” means the operator of an electronic communications code network.

3. The exercise of the powers of article 28 (statutory undertakers) are subject to part 10 of Schedule 3A (the electronic communications code) to the 2003 Act.

4.—(1) Subject to sub-paragraphs (2) to (4), if as the result of the authorised development or their construction, or of any subsidence resulting from any of those works—

(a) any damage is caused to any electronic communications apparatus belonging to an operator (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works, or other property of an operator); or

(b) there is any interruption in the supply of the service provided by an operator, the undertaker must bear and pay the cost reasonably incurred by the operator in making good such damage or restoring the supply and must—

(i) make reasonable compensation to an operator for loss sustained by it; and

(a) 2003 c.21.

(b) See section 106.

- (ii) indemnify an operator against claims, demands, proceedings, costs, damages and expenses which may be made or taken against, or recovered from, or incurred by, an operator by reason, or in consequence of, any such damage or interruption.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of an operator, its officers, servants, contractors or agents.

(3) The operator must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise of the claim or demand may be made without the consent of the undertaker which, if it withholds such consent, shall have the sole conduct of any settlement or compromise or of any proceedings necessary to resist the claim or demand.

(4) Any difference arising between the undertaker and the operator under this paragraph must be referred to and settled by arbitration under article 37 (arbitration).

5. This Part does not apply to—

- (a) any apparatus in respect of which the relations between the undertaker and an operator are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act; or
- (b) any damage, or any interruption, caused by electro-magnetic interference arising from the construction or use of the authorised development.

6. Nothing in this Part affects the provisions of any enactment or agreement regulating the relations between the undertaker and an operator in respect of any apparatus laid or erected in land belonging to the undertaker on the date on which this Order is made.

PART 5

PROTECTION OF NETWORK RAIL INFRASTRUCTURE LIMITED

1. The following provisions of this Part of this Schedule have effect unless otherwise agreed in writing between the undertaker and Network Rail and, in the case of paragraph 15 any other person on whom rights or obligations are conferred by that paragraph.

2. In this Part—

“construction” includes execution, placing, alteration and reconstruction and “construct” and “constructed” have corresponding meanings;

“the engineer” means an engineer appointed by Network Rail for the purposes of this Order;

“network licence” means the network licence, as amended from time to time, granted to Network Rail by the Secretary of State in exercise of powers under section 8 (licences) of the Railways Act 1993(a);

“Network Rail” means Network Rail Infrastructure Limited (Company registration number 02904587) whose registered office is at 1 Eversholt Street, London, NW1 2DN and any associated company of Network Rail Infrastructure Limited which holds property for railway purposes, and for the purpose of this definition, “associated company” means any company which is (within the meaning of section 1159 of the Companies Act 2006(b)) the holding company of Network Rail Infrastructure Limited, a subsidiary of Network Rail Infrastructure Limited or another subsidiary of the holding company of Network Rail Infrastructure Limited;

“plans” includes sections, designs, design data, software, drawings, specifications, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of railway property;

(a) 1993 c.43.

(b) 2006 c.46.

“railway operational procedures” means procedures specified under any access agreement (as defined in the Railways Act 1993) or station lease;

“railway property” means any railway belonging to Network Rail and—

- (a) any station, land, works, apparatus and equipment belonging to Network Rail or connected with any such railway; and
- (b) any easement or other property interest held or used by Network Rail for the purposes of such railway or works, apparatus or equipment; and

“specified work” means so much of any of the authorised project as is situated upon, across, under, over or within 15 metres of, or may in any way adversely affect, railway property and for the avoidance of doubt includes the exercise of the powers conferred by article 4 (power to maintain authorised project), article 12 (access to works), article 15 (discharge of water), article 17 (authority to survey and investigate the land onshore); article 34 (felling or lopping of trees and removal of hedgerows) and article 35 (trees subject to tree preservation orders) in respect of any railway property.

3.—(1) Where under this Part Network Rail is required to give its consent or approval in respect of any matter, that consent or approval is subject to the condition that Network Rail complies with any relevant railway operational procedures and any obligations under its network licence or under statute.

(2) In so far as any specified work or the acquisition or use of railway property is or may be subject to railway operational procedures, Network Rail must—

- (a) co-operate with the undertaker with a view to avoiding undue delay and securing conformity as between any plans approved by the engineer and requirements emanating from those procedures; and
- (b) use their reasonable endeavours to avoid any conflict arising between the application of those procedures and the proper implementation of the authorised project pursuant to this Order.

4.—(1) The undertaker must before commencing construction of any specified work supply to Network Rail proper and sufficient plans of that work for the reasonable approval of the engineer and the specified work must not be commenced except in accordance with such plans as have been approved in writing by the engineer or settled by arbitration under article 37 (arbitration).

(2) The approval of the engineer under sub-paragraph (1) must not be unreasonably withheld, and if by the end of the period of 28 days beginning with the date on which such plans have been supplied to Network Rail the engineer has not intimated disapproval of those plans and the grounds of disapproval, the undertaker may serve upon the engineer written notice requiring the engineer to intimate approval or disapproval within a further period of 28 days beginning with the date upon which the engineer receives written notice from the undertaker. If by the expiry of the further 28 days the engineer has not intimated approval or disapproval, the engineer is deemed to have approved the plans as submitted.

(3) If by the end of the period of 28 days beginning with the date on which written notice was served upon the engineer under sub-paragraph (2), Network Rail gives notice to the undertaker that Network Rail desires itself to construct any part of a specified work which in the opinion of the engineer will or may affect the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker desires such part of the specified work to be constructed, Network Rail must construct it without unnecessary delay on behalf of and to the reasonable satisfaction of the undertaker in accordance with the plans approved or deemed to be approved or settled under this paragraph, and under the supervision (where appropriate and if given) of the undertaker.

(4) When signifying approval of the plans the engineer may specify any protective works (whether temporary or permanent) which in the opinion of the engineer should be carried out before the commencement of the construction of a specified work to ensure the safety or stability of railway property or the continuation of safe and efficient operation of the railways of Network Rail or the services of operators using them (including any relocation de-commissioning and removal of works, apparatus and equipment necessitated by a specified work and the comfort and

safety of passengers who may be affected by the specified work), and such protective works as may be reasonably necessary for those purposes are to be constructed by Network Rail or by the undertaker, if Network Rail so desires, and such protective works must be carried out at the expense of the undertaker in either case without unnecessary delay and the undertaker must not commence the construction of the specified work until the engineer has notified the undertaker that the protective works have been completed to the engineer's reasonable satisfaction.

5.—(1) Any specified work and any protective works to be constructed by virtue of paragraph 4(4) must, when commenced, be constructed—

- (a) without unnecessary delay in accordance with the plans approved or deemed to have been approved or settled under paragraph 4;
- (b) under the supervision (where appropriate and if given) and to the reasonable satisfaction of the engineer;
- (c) in such manner as to cause as little damage as is possible to railway property; and
- (d) so far as is reasonably practicable, so as not to interfere with or obstruct the free, uninterrupted and safe use of any railway of Network Rail or the traffic thereon and the use by passengers of railway property.

(2) If any damage to railway property or any such interference or obstruction is caused by the carrying out of, or in consequence of the construction of, a specified work, the undertaker must, regardless of any approval described in paragraph 5(1)(a), make good such damage and pay to Network Rail all reasonable expenses to which Network Rail may be put and compensation for any loss which it may sustain by reason of any such damage, interference or obstruction.

(3) Nothing in this Part imposes any liability on the undertaker with respect to any damage, costs, expenses or loss attributable to the negligence of Network Rail or its servants, contractors or agents or any liability on Network Rail with respect to any damage, costs, expenses or loss attributable to the negligence of the undertaker or its servants, contractors or agents.

6. The undertaker must—

- (a) at all times afford reasonable facilities to the engineer for access to a specified work during its construction; and
- (b) supply the engineer with all such information as the engineer may reasonably require with regard to a specified work or the method of constructing it.

7. Network Rail must at all times afford reasonable facilities to the undertaker and its agents for access to any works carried out by Network Rail under this Part during their construction and must supply the undertaker with such information as it may reasonably require with regard to such works or the method of constructing them.

8.—(1) If any permanent or temporary alterations or additions to railway property, are reasonably necessary in consequence of the construction of a specified work, or during a period of 24 months after the completion of that work in order to ensure the safety of railway property or the continued safe operation of the railway of Network Rail, such alterations and additions may be carried out by Network Rail and if Network Rail gives to the undertaker reasonable notice of its intention to carry out such alterations or additions (which must be specified in the notice), the undertaker must pay to Network Rail the reasonable cost of those alterations or additions including, in respect of any such alterations and additions as are to be permanent, a capitalised sum representing the increase of the costs which may be expected to be reasonably incurred by Network Rail in maintaining, working and, when necessary, renewing any such alterations or additions.

(2) If during the construction of a specified work by the undertaker, Network Rail gives notice to the undertaker that Network Rail desires itself to construct that part of the specified work which in the opinion of the engineer is endangering the stability of railway property or the safe operation of traffic on the railways of Network Rail then, if the undertaker decides that part of the specified work is to be constructed, Network Rail must assume construction of that part of the specified work and the undertaker must, notwithstanding any such approval of a specified work under paragraph 4(3), pay to Network Rail all reasonable expenses to which Network Rail may be put

and compensation for any loss which it may suffer by reason of the execution by Network Rail of that specified work.

(3) The engineer must, in respect of the capitalised sums referred to in this paragraph and paragraph 9(a) provide such details of the formula by which those sums have been calculated as the undertaker may reasonably require.

(4) If the cost of maintaining, working or renewing railway property is reduced in consequence of any such alterations or additions a capitalised sum representing such saving must be set off against any sum payable by the undertaker to Network Rail under this paragraph.

9. The undertaker must pay to Network Rail all reasonable fees, costs, charges and expenses reasonably incurred by Network Rail—

- (a) in constructing any part of a specified work on behalf of the undertaker as provided by paragraph 4(3) or in constructing any protective works under paragraph 4(4) including, in respect of any permanent protective works, a capitalised sum representing the cost of maintaining and renewing those works;
- (b) in respect of the approval by the engineer of plans submitted by the undertaker and the supervision by the engineer of the construction of a specified work;
- (c) in respect of the employment or procurement of the services of any inspectors, signallers, watch-persons and other persons whom it is reasonably necessary to appoint for inspecting, signalling, watching and lighting railway property and for preventing, so far as may be reasonably practicable, interference, obstruction, danger or accident arising from the construction or failure of a specified work;
- (d) in respect of any special traffic working resulting from any speed restrictions which may in the opinion of the engineer, need to be imposed by reason or in consequence of the construction or failure of a specified work or from the substitution or diversion of services which may be reasonably necessary for the same reason; and
- (e) in respect of any additional temporary lighting of railway property in the vicinity of the specified work, being lighting made reasonably necessary by reason or in consequence of the construction or failure of a specified work.

10.—(1) In this paragraph—

“EMI” means, subject to sub-paragraph (2), electromagnetic interference with Network Rail’s apparatus generated by the operation of the authorised project where such interference is of a level which adversely affects the safe operation of Network Rail’s apparatus; and

“Network Rail’s apparatus” means any lines, circuits, wires, apparatus or equipment (whether or not modified or installed as part of the authorised project) which are owned or used by Network Rail for the purpose of transmitting or receiving electrical energy or of radio, telegraphic, telephonic, electric, electronic or other like means of signalling or other communications.

(2) This paragraph applies to EMI only to the extent that the EMI is not attributable to any change to Network Rail’s apparatus carried out after approval of plans under paragraph 4(1) for the relevant part of the authorised project giving rise to EMI (unless the undertaker has been given notice in writing before the approval of those plans of the intention to make such change).

(3) Subject to sub-paragraph (5), the undertaker must in the design and construction of the authorised project take all measures necessary to prevent EMI and must establish with Network Rail (both parties acting reasonably) appropriate arrangements to verify their effectiveness.

(4) In order to facilitate the undertaker’s compliance with sub-paragraph (3)—

- (a) the undertaker must consult with Network Rail as early as reasonably practicable to identify all Network Rail’s apparatus which may be at risk of EMI, and thereafter must continue to consult with Network Rail (both before and after formal submission of plans under paragraph 4(1)) in order to identify all potential causes of EMI and the measures required to eliminate them;

- (b) Network Rail must make available to the undertaker all information in the possession of Network Rail reasonably requested by the undertaker in respect of Network Rail's apparatus identified pursuant to sub-paragraph (a); and
- (c) Network Rail must allow the undertaker reasonable facilities for the inspection of Network Rail's apparatus identified pursuant to sub-paragraph (a).

(5) In any case where it is established that EMI can reasonably be prevented only by modifications to Network Rail's apparatus, Network Rail must not withhold its consent unreasonably to modifications of Network Rail's apparatus, but Network Rail may, in its reasonable discretion select the means of prevention and the method of their execution, and in relation to such modifications paragraph 4(1) has effect subject to this sub-paragraph.

(6) If at any time prior to the commencement of the commercial operation of the authorised project and regardless of any measures adopted under sub-paragraph (3), the testing or commissioning of the authorised project causes EMI then the undertaker must immediately upon receipt of notification by Network Rail of the EMI either in writing or communicated orally (such oral communication to be confirmed in writing as soon as reasonably practicable after it has been issued) cease to use (or procure the cessation of use of) the undertaker's apparatus causing the EMI until all measures necessary have been taken to remedy the EMI by way of modification to the source of the EMI or (in the circumstances, and subject to the consent, specified in sub-paragraph (5)) to Network Rail's apparatus.

(7) In the event of EMI having occurred—

- (a) the undertaker must afford reasonable facilities to Network Rail for access to the undertaker's apparatus in the investigation of the EMI;
- (b) Network Rail must afford reasonable facilities to the undertaker for access to Network Rail's apparatus in the investigation of the EMI; and
- (c) Network Rail must make available to the undertaker any additional material information in its possession reasonably requested by the undertaker in respect of Network Rail's apparatus or the EMI.

(8) Where Network Rail approves modifications to Network Rail's apparatus pursuant to sub-paragraphs (5) or (6)—

- (a) Network Rail must allow the undertaker reasonable facilities for the inspection of the relevant part of Network Rail's apparatus;
- (b) any modifications to Network Rail's apparatus approved pursuant to those sub-paragraphs must be carried out and completed by the undertaker in accordance with paragraph 5.

(9) To the extent that it would not otherwise do so, the indemnity in paragraph 14(1) applies, subject to paragraphs 14(2) to 14(8), to the costs and expenses reasonably incurred or losses reasonably suffered by Network Rail through the implementation of the provisions of this paragraph (including costs reasonably incurred in connection with the consideration of proposals, approval of plans, supervision and inspection of works and facilitating access to Network Rail's apparatus) or in consequence of any EMI to which sub-paragraph (6) applies.

(10) For the purpose of paragraph 9(a) any modifications to Network Rail's apparatus under this paragraph is deemed to be protective works referred to in that paragraph.

(11) In relation to any dispute arising under this paragraph the reference in article 37 (arbitration) to the Secretary of State shall be read as a reference to the Institution of Engineering and Technology for appointment of an arbitrator.

11. If at any time after the completion of a specified work, not being a work vested in Network Rail, Network Rail gives notice to the undertaker informing it that the state of maintenance of any part of the specified work appears to be such as adversely affects the operation of railway property, the undertaker must, on receipt of such notice, take such steps as may be reasonably necessary to put that specified work in such state of maintenance as not adversely to affect railway property.

12. The undertaker must not provide any illumination or illuminated sign or signal on or in connection with a specified work in the vicinity of any railway belonging to Network Rail unless it has first consulted Network Rail and it must comply with Network Rail's reasonable requirements for preventing confusion between such illumination or illuminated sign or signal and any railway signal or other light used for controlling, directing or securing the safety of traffic on the railway.

13. Any additional expenses which Network Rail may reasonably incur in altering, reconstructing or maintaining railway property under any powers existing at the making of this Order by reason of the existence of a specified work, provided that at least 56 days' prior notice of the commencement of such alteration, reconstruction or maintenance has been given to the undertaker, are to be paid by the undertaker to Network Rail.

14.—(1) The undertaker must—

- (a) pay to Network Rail all reasonable costs, charges, damages and expenses not otherwise provided for in this Part (but subject to the provisions of this paragraph) which may be occasioned to or reasonably incurred by Network Rail by reason of—
 - (i) the construction or maintenance of a specified work or the failure of such a work; or
 - (ii) any act or omission of the undertaker or of any person in its employ or of its contractors or others whilst engaged upon a specified work,
- (b) indemnify and keep indemnified Network Rail from and against all claims and demands arising out of or in connection with a specified work or any such failure, act or omission.

(2) The fact that any act or thing may have been done by Network Rail on behalf of the undertaker or in accordance with plans approved by the engineer or in accordance with any requirement of the engineer or under the supervision of the engineer shall not (if it was done without negligence on the part of Network Rail or of any person in its employ or of its contractors or agents) excuse the undertaker from any liability under the provisions of this sub-paragraph.

(3) Network Rail must give the undertaker reasonable written notice of any such claim or demand and no settlement or compromise of such a claim or demand shall be made without the prior consent of the undertaker.

(4) In no circumstances is the undertaker liable to Network Rail under sub-paragraph (1) for any indirect or consequential loss or loss of profits, save that the sums payable by the undertaker under that sub-paragraph include a sum equivalent to the relevant costs in circumstances where—

- (a) Network Rail is liable to make payment of the relevant costs pursuant to the terms of an agreement between Network Rail and a train operator; and
- (b) the existence of that agreement and the extent of Network Rail's liability to make payment of the relevant costs pursuant to its terms has previously been disclosed in writing to the undertaker, but not otherwise.

(5) Subject to the terms of any agreement between Network Rail and a train operator regarding the timing or method of payment of the relevant costs in respect of that train operator, Network Rail must promptly pay to each train operator the amount of any sums which Network Rail receives under sub-paragraph (3) which relates to the relevant costs of that train operator.

(6) The obligation under sub-paragraph (3) to pay Network Rail the relevant costs is, in the event of default, enforceable directly by any train operator concerned to the extent that such sums would be payable to that operator pursuant to sub-paragraph (5).

(7) Network Rail must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 14 applies. If requested to do so by the undertaker, Network Rail shall provide an explanation of how the claim has been minimised. The undertaker shall only be liable under this paragraph 14 for claims reasonably incurred by Network Rail.

(8) In this paragraph—

“the relevant costs” means the costs, direct losses and expenses (including loss of revenue) reasonably incurred by a train operator as a consequence of any restriction of the use of

Network Rail's railway network as a result of the construction, maintenance or failure of a specified work or any such act or omission as mentioned in sub-paragraph (1); and

“train operator” means any person who is authorised to act as the operator of a train by a licence under section 8 of the Railways Act 1993.

15. Network Rail must, on receipt of a request from the undertaker, from time to time provide the undertaker free of charge with written estimates of the costs, charges, expenses and other liabilities for which the undertaker is or will become liable under this Part (including the amount of the relevant costs mentioned in paragraph 14) and with such information as may reasonably enable the undertaker to assess the reasonableness of any such estimate or claim made or to be made pursuant to this Part (including any claim relating to those relevant costs).

16. In the assessment of any sums payable to Network Rail under this Part no account must be taken of any increase in the sums claimed that is attributable to any action taken by or any agreement entered into by Network Rail if that action or agreement was not reasonably necessary and was taken or entered into with a view to obtaining the payment of those sums by the undertaker under this Part or increasing the sums so payable.

17. The undertaker and Network Rail may, subject in the case of Network Rail to compliance with the terms of its network licence, enter into, and carry into effect, agreements for the transfer to the undertaker of—

- (a) any railway property shown on the works plans and land plans and described in the book of reference;
- (b) any lands, works or other property held in connection with any such railway property; and
- (c) any rights and obligations (whether or not statutory) of Network Rail relating to any railway property or any lands, works or other property referred to in this paragraph.

18. Nothing in this Order, or in any enactment incorporated with or applied by this Order, prejudices or affects the operation of Part I (the provision of services) of the Railways Act 1993.

19. The undertaker must give written notice to Network Rail if any application is proposed to be made by the undertaker for the Secretary of State's consent under article 5 (benefit of the Order) of this Order in relation to land within 15m of Network Rail's operational railway and any such notice must be given no later than 14 days before any such application is made and must describe or give (as appropriate)—

- (a) whether the application is for consent pursuant to article 5(2)(a) or 5(2)(b);
- (b) the extent of the geographical area to which the application relates; and
- (c) the name and address of the person acting for the Secretary of State to whom the application is to be made.

20. In relation to any dispute arising under this Part that is referred to arbitration in accordance with article 37 (arbitration) of this Order, the undertaker will agree to any reasonable extension of time requested by Network Rail pursuant to paragraph 5(3) of Schedule 13 where Network Rail can demonstrate that it is unable (acting reasonably) to comply with the time limit due to timing constraints that may arise for Network Rail in obtaining clearance conditions and/or any engineering regulatory or stakeholder (internal or external) consents and/or assessing any matters of concern with regards to the safe operation of the railway.

21. The undertaker must no later than 28 days from the date that the plans submitted to and certified by the Secretary of State in accordance with article 36 (certification of plans and documents etc.) are certified by the Secretary of State, provide a set of those plans to Network Rail in a format reasonably specified by Network Rail.

PART 6

FOR THE PROTECTION OF ANGLIAN WATER SERVICES LIMITED

1. For the protection of Anglian Water, the following provisions of this Schedule, unless otherwise agreed in writing between the undertaker and Anglian Water shall have effect.

2. In this Part—

“alternative apparatus” means alternative apparatus adequate to enable Anglian Water to fulfil its statutory functions in not less efficient a manner than previously;

“Anglian Water” means Anglian Water Services Limited (company number 02366656) whose registered office is at Lancaster House, Lancaster Way, Ermine Business Park, Huntington, Cambridgeshire PE29 6XU;

“apparatus” means any works, mains, pipes or other apparatus belonging to or maintained by Anglian Water for the purposes of water supply and sewerage and—

- (a) any drain or works vested in Anglian Water under the Water Industry Act 1991;
- (b) any sewer which is so vested or is the subject of a notice of intention to adopt given under section 102(4)(a) (adoption of sewers and disposal works) of the Water Industry Act 1991 or an agreement to adopt made under section 104(b) (agreements to adopt sewer, drain or sewage disposal works at future date) of that Act,

and includes a sludge main, disposal main or sewer outfall and any manholes, ventilating shafts, pumps or other accessories forming part of any sewer, drain, or works (within the meaning of section 219 (general interpretation) of that Act) and any structure in which apparatus is or is to be lodged or which gives or will give access to apparatus;

“functions” includes powers and duties;

“in” in a context referring to apparatus or alternative apparatus in land includes a reference to apparatus or alternative apparatus under, over or upon land; and

“plan” includes sections, drawings, specifications and method statements.

3. This Part does not apply to apparatus to the extent that the relations between the undertaker and Anglian Water are regulated by the provisions of Part 3 (street works in England and Wales) of the 1991 Act.

4. The undertaker must not interfere with, build over or near to any apparatus within the Order land or execute the placing, installation, bedding, packing, removal, connection or disconnection of any apparatus, or execute any filling around the apparatus (where the apparatus is laid in a trench) within the standard protection strips which are the strips of land falling, the following distances to either side of the medial line of any apparatus—

- (a) 2.25 metres where the diameter of the pipe is less than 150 millimetres;
- (b) 3 metres where the diameter of the pipe is between 150 and 450 millimetres;
- (c) 4.5 metres where the diameter of the pipe is between 450 and 750 millimetres; or
- (d) 6 metres where the diameter of the pipe exceeds 750 millimetres,

unless otherwise agreed in writing with Anglian Water, such agreement not to be unreasonably withheld or delayed, and such provision being brought to the attention of any agent or contractor responsible for carrying out the authorised development on behalf of the undertaker.

5. The alteration, extension, removal or re-location of any apparatus shall not be implemented until—

- (a) any requirement for any permits under the Environmental Permitting (England and Wales) Regulations 2016 or other legislation and any other associated consents are

(a) Section 102(4) was amended by the Water Act 2003 (c.37), s96(1) and the Water Act 2014 (c.21), Schedule 7, paragraph 90.

(b) Section 104 was amended by the Water Act 2003 (c.37), s96 and the Water Act 2014 (c.21).

obtained, and any approval or agreement required from Anglian Water on alternative outfall locations as a result of such re-location are approved, such approvals or agreement from Anglian Water not to be unreasonably withheld or delayed; and

- (b) the undertaker has made the appropriate application required under the Water Industry Act 1991 together with a plan and description of the works proposed and Anglian Water has agreed all of the contractual documentation required under the Water Industry Act 1991, such agreement not to be unreasonably withheld or delayed; and such works to be executed only in accordance with the plan and description submitted and in accordance with such reasonable requirements as may be made by Anglian Water without delay for the alteration or otherwise for the protection of the apparatus, or for securing access to it.

6. In the situation, where in exercise of the powers conferred by the Order, the undertaker acquires any interest in any land in which apparatus is placed and such apparatus is to be relocated, extended, removed or altered in any way, no alteration or extension shall take place until Anglian Water has established to its reasonable satisfaction, contingency arrangements in order to conduct its functions for the duration of the works to relocate, extend, remove or alter the apparatus or provide alternative apparatus. Anglian Water must use reasonable endeavours to establish contingency arrangements in a timely manner.

7. Regardless of any provision in this Order or anything shown on any plan, the undertaker must not acquire any apparatus otherwise than by agreement, and before extinguishing any existing rights for Anglian Water to use, keep, inspect, renew and maintain its apparatus in the Order land, the undertaker shall, with the agreement of Anglian Water, create a new right to use, keep, inspect, renew and maintain the apparatus that is reasonably convenient for Anglian Water such agreement not to be unreasonably withheld or delayed, and to be subject to arbitration under article 37 (arbitration).

8. If the undertaker is unable to create the new rights referred to in paragraph 7, Anglian Water must, on receipt of a written notice to that effect from the undertaker, as soon as reasonably possible, use its reasonable endeavours to obtain the necessary rights.

9. If in consequence of the exercise of the powers conferred by the Order the access to any apparatus is materially obstructed the undertaker must provide such alternative means of access to such apparatus as will enable Anglian Water to maintain or use the apparatus no less effectively than was possible before such obstruction.

10. If in consequence of the exercise of the powers conferred by the Order, previously unmapped sewers, lateral drains or other apparatus are identified by the undertaker, notification of the location of such assets will immediately be given to Anglian Water and afforded the same protection as other Anglian Water assets.

11. If for any reason or in consequence of the construction of any of the works referred to in paragraphs 3 and 5 above any damage is caused to any apparatus (other than apparatus the repair of which is not reasonably necessary in view of its intended removal for the purposes of those works) or property of Anglian Water, or there is any interruption in any service provided, or in the supply of any goods, by Anglian Water, the undertaker must—

- (a) bear and pay the cost reasonably incurred by Anglian Water in making good any damage or restoring the supply; and
- (b) make reasonable compensation to Anglian Water for any other expenses, loss, damages, penalty or costs properly and reasonably incurred by Anglian Water,

by reason or in consequence of any such damage or interruption.

12. Nothing in paragraph 11 above imposes any liability on the undertaker in respect of any damage or interruption to the extent that it is attributable to the act, neglect or default of Anglian Water, its officer, servants, contractors or agents.

13. Anglian Water must give the undertaker reasonable notice of any claim or demand pursuant to paragraph 11 and must consider its representations before proceeding further in respect of the claim or demand.

14. Anglian Water must use its reasonable endeavours to mitigate in whole or in part and to minimise any claim, costs, expenses, loss, demands and penalties pursuant to paragraph 11. If requested to do so by the undertaker, Anglian Water shall provide an explanation of how the claim has been minimised.

15. Any difference or dispute arising between the undertaker and Anglian Water under this Part must, unless otherwise agreed in writing between the undertaker and Anglian Water, be determined by arbitration in accordance with article 37(arbitration).

PART 7

FOR THE PROTECTION OF THE ENVIRONMENT AGENCY AND DRAINAGE AUTHORITIES

1. The provisions of this Part have effect for the protection of a drainage authority unless otherwise agreed in writing between undertaker and the drainage authority.

2. In this Part—

“construction” includes execution, placing, altering, replacing, relaying and removal; and
“construct” and “constructed” must be construed accordingly;

“drainage authority” means—

(a) in relation to an ordinary watercourse, the drainage board concerned within the meaning of section 23 (prohibitions of obstructions etc in watercourses) of the Land Drainage Act 1991(a); and

(b) in relation to a main river or any sea defence work, the Environment Agency;

“drainage work” means any watercourse includes any land that provides or is expected to provide flood storage capacity for any watercourse and any bank, wall, embankment or other structure, or any appliance, constructed or used for land drainage, flood defence, sea defence or tidal monitoring;

“ordinary watercourse” has the meaning given in the Land Drainage Act 1991(b);

“plans” includes sections, drawings, specifications and method statements; and

“specified work” means so much of any work or operation authorised by this Order as is in, on, under, over or within 16 metres of a drainage work or is otherwise likely to—

(a) affect any drainage work or the volumetric rate of flow of water in or flowing to or from any drainage work;

(b) affect the flow, purity, or quality of water in any watercourse; or

(c) affect the conservation, distribution or use of water resources.

3.—(1) Before beginning to construct any specified work, the undertaker must submit to the drainage authority plans of the specified work and such further particulars available to it as the drainage authority may within 28 days of the submission of the plans reasonably require.

(2) Any such specified work must not be constructed except in accordance with such plans as may be approved in writing by the drainage authority or determined under sub-paragraph 3.

(3) Any approval of the drainage authority required under this paragraph—

(a) must not be unreasonably withheld or delayed;

(b) is deemed to have been given if it is neither given nor refused within 2 months of the submission of the plans for approval (or submission of further particulars if required by

(a) c.23. Section 23 was amended by the Environment Act 1995 (c.29), Schedule 22, paragraph 192 and the Flood and Water Management Act 2010 (c.29), Schedule 2, paragraph 32.

(b) See section 72(1).

the drainage authority under sub-paragraph (1)) or, in the case of a refusal, if it is not accompanied by a statement of the grounds of refusal; and

- (c) may be given subject to such reasonable requirements as the drainage authority may make for the protection of any drainage work or, where the drainage authority is the Environment Agency, for the protection of water resources for the prevention of pollution or in the discharge of its environmental duties.

(4) The drainage authority must use its reasonable endeavours to respond to the submission of any plans before the expiration of the period mentioned in sub-paragraph 3(3)(b).

4. Without limiting paragraph 3, the requirements which the drainage authority may make under that paragraph include conditions requiring the undertaker at its own expense to construct such protective works, whether temporary or permanent, during the construction of the specified work (including the provision of flood banks, walls or embankments or other new works and the strengthening, repair or renewal of existing banks, walls or embankments) as are reasonably necessary—

- (a) to safeguard any drainage work against damage; or
- (b) to secure that its efficiency for flood defence purposes is not impaired and that the risk of flooding is not otherwise increased,

by reason of any specified work.

5.—(1) Subject to sub-paragraph (2), any specified work, and all protective works required by the drainage authority under paragraph 4, must be constructed—

- (a) without unreasonable delay in accordance with the plans approved or deemed to have been approved or settled under this Part; and
- (b) to the reasonable satisfaction of the drainage authority,

and an officer of the drainage authority is entitled to watch and inspect the construction of such works.

(2) The undertaker must give to the drainage authority—

- (a) not less than 14 days' notice in writing of its intention to commence construction of any specified work; and
- (b) notice in writing of its completion not later than 7 days after the date on which it is brought into use.

(3) If the drainage authority reasonably requires, the undertaker must construct all or part of the protective works so that they are in place before the construction of the specified work.

(4) If any part of a specified work or any protective work required by the drainage authority is constructed otherwise than in accordance with the requirements of this Part, the drainage authority may by notice in writing require the undertaker at the undertaker's expense to comply with the requirements of this Part or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed) to remove, alter or pull down the work and, where removal is required, to restore the site to its former condition to such extent and within such limits as the drainage authority reasonably requires.

(5) Subject to sub-paragraph (6), if within a reasonable period, being not less than 28 days from the date when a notice under sub-paragraph (4) is served on the undertaker, the undertaker has failed to begin taking steps to comply with the requirements of the notice and subsequently to make reasonably expeditious progress towards their implementation, the drainage authority may execute the works specified in the notice, and any expenditure incurred by it in so doing is recoverable from the undertaker.

(6) In the event of any dispute as to whether sub-paragraph (4) is properly applicable to any work in respect of which notice has been served under that sub-paragraph, or as to the reasonableness of any requirement of such a notice, the drainage authority must not except in emergency exercise the powers conferred by sub-paragraph (4) until the dispute has been finally determined.

6.—(1) Subject to sub-paragraph (5) the undertaker must from the commencement of the construction of any specified work maintain in good repair and condition and free from obstruction any drainage work that is situated within the limits of deviation on land held by the undertaker for the purposes of or in connection with the specified work, whether or not the drainage work is constructed under the powers conferred by this Order or is already in existence.

(2) If any drainage work that the undertaker is liable to maintain is not maintained to the reasonable satisfaction of the drainage authority, the drainage authority may by notice in writing require the undertaker to repair and restore the work, or any part of such work, or (if the undertaker so elects and the drainage authority in writing consents, such consent not to be unreasonably withheld or delayed), to remove the work and restore the site to its former condition, to such extent and within such limits as the drainage authority reasonably requires.

(3) If, within a reasonable period being not less than 28 days beginning with the date on which a notice in respect of any drainage work is served under sub-paragraph (2) on the undertaker, the undertaker has failed to begin taking steps to comply with the reasonable requirements of the notice and has not subsequently made reasonably expeditious progress towards their implementation, the drainage authority may do what is necessary for such compliance and may recover any expenditure reasonably incurred by it in so doing from the undertaker.

(4) In the event of any dispute as to the reasonableness of any requirement of a notice served under sub-paragraph (2), the drainage authority must not except in a case of emergency exercise the powers conferred by sub-paragraph (3) until the dispute has been finally determined.

(5) This paragraph does not apply to—

- (a) drainage works that are vested in the drainage authority or that the drainage authority or another person is liable to maintain and is not prevented by this Order from so doing; and
- (b) any obstruction of a drainage work for the purpose of a work or operation authorised by this Order and carried out in accordance with the provisions of this Part.

7. If by reason of the construction of any specified work or of the failure of any such work the efficiency of any drainage work for flood defence purposes is impaired, or the drainage work is otherwise damaged, the impairment or damage must be made good by the undertaker to the reasonable satisfaction of the drainage authority and, if the undertaker fails to do so, the drainage authority may make good the impairment or damage and recover from the undertaker the expense reasonably incurred by it in doing so.

8. The undertaker must indemnify the drainage authority in respect of all costs, charges and expenses that the drainage authority may reasonably incur, have to pay or may sustain—

- (a) in the examination or approval of plans under this Part;
- (b) in inspecting the construction of any specified work or any protective works required by the drainage authority under this Part; and
- (c) in carrying out of any surveys or tests by the drainage authority that are reasonably required in connection with the construction of the specified work.

9.—(1) Without limiting the other provisions of this Part, the undertaker must indemnify the drainage authority in respect of all claims, demands, proceedings, costs, damages, expenses or loss that may be made or taken against, recovered from or incurred by, the drainage authority by reason of—

- (a) any damage to any drainage work so as to impair its efficiency for the purposes of flood defence;
- (b) any raising or lowering of the water table in land adjoining the authorised development or any sewers, drains and watercourses; or
- (c) any flooding or increased flooding of any such land; and
- (d) where the drainage authority is the Environment Agency, inadequate water quality in any watercourse or other surface waters or in any groundwater,

that is caused by the construction of any specified work or any act or omission of the undertaker, its contractors, agents or employees whilst engaged on the work.

(2) The drainage authority must give to the undertaker reasonable notice of any such claim or demand, and no settlement or compromise may be made without the agreement of the undertaker which agreement must not be unreasonably withheld or delayed.

10. The fact that any work or thing has been executed or done by the undertaker in accordance with a plan approved or deemed to be approved by the drainage authority, or to its satisfaction, or in accordance with any directions or award of an arbitrator, does not relieve the undertaker from any liability under this Part.

11. Any dispute between the undertaker and the drainage authority under this Part, if the parties agree, must be determined by arbitration under article 37 (arbitration), but otherwise must be determined by the Secretary of State for Environment, Food and Rural Affairs and the Secretary of State for Business, Energy and Industrial Strategy acting jointly on a reference to them by the undertaker or the drainage authority, after notice in writing by one to the other.

PART 8

FOR THE PROTECTION OF NORFOLK VANGUARD

1. The provisions of this Part apply for the protection of Vanguard unless otherwise agreed in writing between the undertaker and Vanguard.

2. In this Part—

“apparatus” means the cables, structures or other infrastructure owned, occupied or maintained by Vanguard or its successor in title within the Norfolk Vanguard Order land;

“construction” includes execution, placing, altering, replacing, reconstruction, relaying, maintenance, extensions, enlargement and removal; and “construct” and “constructed” must be construed accordingly;

“Crossing Area” means the land within land parcels 16-001, 16-002, 16-003 and 16-004 shown on the land plans and described in the book of reference;

“Norfolk Vanguard Order” means the Norfolk Vanguard Offshore Wind Farm Order as granted by the Secretary of State on 1 July 2020;

“Norfolk Vanguard Order land” means Order land as defined in the Norfolk Vanguard Order;

“plans” includes sections, drawings, specifications, designs, design data, software, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of the Norfolk Vanguard Order land;

“proposed Norfolk Vanguard Cable Corridor” means the proposed location for any electrical circuit(s) and construction compound(s) permitted by the Norfolk Vanguard Order within the Norfolk Vanguard Order land;

“specified works” means so much of any works or operations authorised by this Order (or authorised by any planning permission intended to operate in conjunction with this Order) as is—

- (a) within the Crossing Area;
- (b) in, on, under, over or within 25 metres of the proposed Norfolk Vanguard Cable Corridor or any apparatus; or
- (c) may in any way adversely affect any apparatus; and

“Vanguard” means an undertaker with the benefit of all or part of the Norfolk Vanguard Order for the time being.

3. The consent of Vanguard under this Part is not required where the Norfolk Vanguard Order has expired without the authorised development having been commenced pursuant to requirement 1 of Schedule 1 to the Norfolk Vanguard Order.

4. Where conditions are included in any consent granted by Vanguard pursuant to this Part, the undertaker must comply with the conditions if it chooses to implement or rely on the consent, unless the conditions are waived or varied in writing by Vanguard.

5. The undertaker must not under the powers of this Order—

- (a) acquire, extinguish, suspend, override or interfere with any rights that Vanguard has in respect of any apparatus or the proposed Norfolk Vanguard Cable Corridor;
- (b) acquire the Norfolk Vanguard Order land or acquire any new rights or impose restrictive covenants or exercise any powers of temporary use over or in relation to the Norfolk Vanguard Order land without the consent of Vanguard, which must not be unreasonably withheld or delayed but which may be made subject to reasonable conditions.

6.—(1) The undertaker must not under the powers of this Order carry out any specified works without the consent of Vanguard, which must not be unreasonably withheld or delayed but which may be made subject to reasonable conditions and if Vanguard does not respond within 30 days then consent is deemed to be given.

(2) Subject to obtaining consent pursuant to sub-paragraph (1) and before beginning to construct any specified works, the undertaker must submit plans of the specified works to Vanguard and must submit such further particulars available to it that Vanguard may reasonably require.

(3) Any specified works must be constructed without unreasonable delay in accordance with the plans approved in writing by Vanguard.

(4) Any approval of Vanguard required under this paragraph may be made subject to such reasonable conditions as may be required for the protection or alteration of any apparatus or the proposed Norfolk Vanguard Cable Corridor or for securing access to any apparatus or the proposed Norfolk Vanguard Cable Corridor.

(5) Without limiting sub-paragraph (1), it is not reasonable for Vanguard to withhold or delay any consent or approval under this Part in relation to specified works in, on, under, or over the Crossing Area solely on the basis of thermal interaction where the plans of the specified works submitted under sub-paragraph (2) demonstrate that all reasonable steps have been taken to minimise thermal interaction between the specified works and any apparatus or the proposed Norfolk Vanguard Cable Corridor.

(6) Where Vanguard requires any protective works to be carried out either by themselves or by the undertaker (whether of a temporary or permanent nature) such protective works must be carried out to Vanguard's reasonable satisfaction.

(7) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any specified works, new plans instead of the plans previously submitted, and the provisions of this paragraph shall apply to and in respect of the new plans.

7.—(1) The undertaker must give to Vanguard not less than 28 days' written notice of its intention to commence the construction of the specified works and, not more than 14 days after completion of their construction, must give Vanguard written notice of the completion.

(2) The undertaker is not required to comply with paragraph 6 or sub-paragraph (1) in a case of emergency, but in that case it must give to Vanguard notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonable practicable subsequently and must comply with paragraph 6 in so far as is reasonably practicable in the circumstances.

8. The undertaker must at all reasonable times during construction of the specified works allow Vanguard and its servants and agents access to the specified works and all reasonable facilities for inspection of the specified works.

9.—(1) After the purpose of any temporary works has been accomplished, the undertaker must with all reasonable dispatch, or after a reasonable period of notice in writing from Vanguard requiring the undertaker to do so, remove the temporary works in, on, under, over, or within the Crossing Area.

(2) If the undertaker fails to remove the temporary works within a reasonable period of receipt of a notice pursuant to sub-paragraph (1), Vanguard may remove the temporary works and may recover the reasonable costs of doing so from the undertaker.

10. If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable Vanguard to maintain or use the apparatus no less effectively than was possible before the obstruction.

11. The undertaker must not exercise the powers conferred by this Order to prevent or interfere with the access by Vanguard to the proposed Norfolk Vanguard Cable Corridor.

12. To ensure its compliance with this Part, the undertaker must before carrying out any works or operations pursuant to this Order within the Crossing Area request up-to-date written confirmation from Vanguard of the location of any apparatus or the proposed Norfolk Vanguard Cable Corridor.

13. The undertaker and Vanguard must each act in good faith and use reasonable endeavours to co-operate with, and provide assistance to, each other as may be required to give effect to the provisions of this Part.

14. The undertaker must pay to Vanguard the reasonable expenses incurred by Vanguard in connection with the approval of plans, inspection of any specified works or the alteration or protection of any apparatus or the proposed Norfolk Vanguard Cable Corridor.

15.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any specified works, any damage is caused to any apparatus or there is any interruption in any service provided, or in the supply of any goods, by Vanguard, or Vanguard becomes liable to pay any amount to any third party, the undertaker must—

- (a) bear and pay the cost reasonably incurred by Vanguard in making good such damage or restoring the service or supply; and
- (b) compensate Vanguard for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from Vanguard, by reason or in consequence of any such damage or interruption or Vanguard becoming liable to any third party as aforesaid.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of Vanguard, its officers, servants, contractors or agents.

(3) Vanguard must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made, unless payment is required in connection with a statutory compensation scheme without first consulting the undertaker and considering its representations.

(4) Vanguard must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 15 applies. If requested to do so by the undertaker, Vanguard shall provide an explanation of how the claim has been minimised. The undertaker shall only be liable under this paragraph 15 for claims reasonably incurred by Vanguard.

(5) The fact that any work or thing has been executed or done with the consent of Vanguard and in accordance with any conditions or restrictions prescribed by Vanguard or in accordance with any plans approved by Vanguard or to its satisfaction or in accordance with any directions or award of any arbitrator does not relieve the undertaker from any liability under this Part.

16. Any dispute arising between the undertaker and Vanguard under this Part must be determined by arbitration under article 37 (arbitration).

PART 9

FOR THE PROTECTION OF NORFOLK BOREAS

1. The provisions of this Part apply for the protection of Boreas unless otherwise agreed in writing between the undertaker and Boreas.

2. In this Part—

“apparatus” means the cables, structures or other infrastructure owned, occupied or maintained by Boreas or its successor in title within the Norfolk Boreas Order Land;

“Boreas” means an undertaker with the benefit of all or part of the Norfolk Boreas Order for the time being;

“construction” includes execution, placing, altering, replacing, reconstruction, relaying, maintenance, extensions, enlargement and removal; and “construct” and “constructed” must be construed accordingly;

“Crossing Area” means the land within land parcels 16-001, 16-002, 16-003 and 16-004 shown on the land plans and described in the book of reference;

“Norfolk Boreas Order” means a development consent order granted by the Secretary of State following an application by Norfolk Boreas Limited for the Norfolk Boreas Offshore Wind Farm ;

“Norfolk Boreas Order land” means Order land as defined in the Norfolk Boreas Order;

“plans” includes sections, drawings, specifications, designs, design data, software, soil reports, calculations, descriptions (including descriptions of methods of construction), staging proposals, programmes and details of the extent, timing and duration of any proposed occupation of the Norfolk Boreas Order land;

“proposed Norfolk Boreas Cable Corridor” means the proposed location for any electrical circuit(s) and construction compound(s) permitted by the Norfolk Boreas Order within the Norfolk Boreas Order land; and

“specified works” means so much of any works or operations authorised by this Order (or authorised by any planning permission intended to operate in conjunction with this Order) as is—

- (a) within the Crossing Area;
- (b) in, on, under, over or within 25 metres of the proposed Norfolk Boreas Cable Corridor or any apparatus; or
- (c) may in any way adversely affect any apparatus.

3. The consent of Boreas under this Part is not required where the Norfolk Boreas Order has expired without the authorised development having been commenced pursuant to any requirement of Schedule 1 to the Norfolk Boreas Order.

4. Where conditions are included in any consent granted by Boreas pursuant to this Part, the undertaker must comply with the conditions if it chooses to implement or rely on the consent, unless the conditions are waived or varied in writing by Boreas.

5. The undertaker must not under the powers of this Order—

- (a) acquire, extinguish, suspend, override or interfere with any rights that Boreas has in respect of any apparatus or the proposed Norfolk Boreas Cable Corridor;
- (b) acquire the Norfolk Boreas Order land or acquire any new rights or impose restrictive covenants or exercise any powers of temporary use over or in relation to the Norfolk Boreas Order land without the consent of Boreas, which must not be unreasonably withheld or delayed but which may be made subject to reasonable conditions.

6.—(1) The undertaker must not under the powers of this Order carry out any specified works without the consent of Boreas, which must not be unreasonably withheld or delayed but which

may be made subject to reasonable conditions and if Boreas does not respond within 30 days then consent is deemed to be given.

(2) Subject to obtaining consent pursuant to sub-paragraph (1) and before beginning to construct any specified works, the undertaker must submit plans of the specified works to Boreas and must submit such further particulars available to it that Boreas may reasonably require.

(3) Any specified works must be constructed without unreasonable delay in accordance with the plans approved in writing by Boreas.

(4) Any approval of Boreas required under this paragraph may be made subject to such reasonable conditions as may be required for the protection or alteration of any apparatus or the proposed Norfolk Boreas Cable Corridor or for securing access to any apparatus or the proposed Norfolk Boreas Cable Corridor;

(5) Without limiting sub-paragraph (1), it is not reasonable for Boreas to withhold or delay any consent or approval under this Part in relation to specified works in, on, under, or over the Crossing Area solely on the basis of thermal interaction where the plans of the specified works submitted under sub-paragraph (2) demonstrate that all reasonable steps have been taken to minimise thermal interaction between the specified works and any apparatus or the proposed Norfolk Boreas Cable Corridor.

(6) Where Boreas requires any protective works to be carried out either by themselves or by the undertaker (whether of a temporary or permanent nature) such protective works must be carried out to Boreas's reasonable satisfaction.

(7) Nothing in this paragraph precludes the undertaker from submitting at any time or from time to time, but in no case less than 28 days before commencing the execution of any specified works, new plans instead of the plans previously submitted, and the provisions of this paragraph shall apply to and in respect of the new plans.

7.—(1) The undertaker must give to Boreas not less than 28 days' written notice of its intention to commence the construction of the specified works and, not more than 14 days after completion of their construction, must give Boreas written notice of the completion.

(2) The undertaker is not required to comply with paragraph 6 or sub-paragraph (1) in a case of emergency, but in that case it must give to the Boreas notice as soon as is reasonably practicable and a plan, section and description of those works as soon as reasonable practicable subsequently and must comply with paragraph 6 in so far as is reasonably practicable in the circumstances.

8. The undertaker must at all reasonable times during construction of the specified works allow Boreas and its servants and agents access to the specified works and all reasonable facilities for inspection of the specified works.

9.—(1) After the purpose of any temporary works has been accomplished, the undertaker must with all reasonable dispatch, or after a reasonable period of notice in writing from Boreas requiring the undertaker to do so, remove the temporary works in, on, under, over, or within the Crossing Area.

(2) If the undertaker fails to remove the temporary works within a reasonable period of receipt of a notice pursuant to sub-paragraph (1), Boreas may remove the temporary works and may recover the reasonable costs of doing so from the undertaker.

10. If in consequence of the exercise of the powers conferred by this Order the access to any apparatus is materially obstructed, the undertaker must provide such alternative means of access to such apparatus as will enable Boreas to maintain or use the apparatus no less effectively than was possible before the obstruction.

11. The undertaker must not exercise the powers conferred by this Order to prevent or interfere with the access by Boreas to the proposed Norfolk Boreas Cable Corridor.

12. To ensure its compliance with this Part, the undertaker must before carrying out any works or operations pursuant to this Order within the Crossing Area request up-to-date written confirmation from Boreas of the location of any apparatus or the proposed Norfolk Boreas Cable Corridor.

13. The undertaker and Boreas must each act in good faith and use reasonable endeavours to co-operate with, and provide assistance to, each other as may be required to give effect to the provisions of this Part.

14. The undertaker must pay to Boreas the reasonable expenses incurred by Boreas in connection with the approval of plans, inspection of any specified works or the alteration or protection of any apparatus or the proposed Norfolk Boreas Cable Corridor.

15.—(1) Subject to sub-paragraphs (2) and (3), if by reason or in consequence of the construction of any specified works, any damage is caused to any apparatus or there is any interruption in any service provided, or in the supply of any goods, by Boreas, or Boreas becomes liable to pay any amount to any third party, the undertaker must—

- (a) bear and pay the cost reasonably incurred by Boreas in making good such damage or restoring the service or supply; and
- (b) compensate Boreas for any other expenses, loss, demands, proceedings, damages, claims, penalty or costs incurred by or recovered from Boreas, by reason or in consequence of any such damage or interruption or Boreas becoming liable to any third party as aforesaid.

(2) Nothing in sub-paragraph (1) imposes any liability on the undertaker with respect to any damage or interruption to the extent that it is attributable to the act, neglect or default of Boreas, its officers, servants, contractors or agents.

(3) Boreas must give the undertaker reasonable notice of any such claim or demand and no settlement or compromise shall be made, unless payment is required in connection with a statutory compensation scheme without first consulting the undertaker and considering its representations.

(4) Boreas must use its reasonable endeavours to mitigate in whole or in part and to minimise any costs, expenses, loss, demands, and penalties to which the indemnity under this paragraph 15 applies. If requested to do so by the undertaker, Boreas shall provide an explanation of how the claim has been minimised. The undertaker shall only be liable under this paragraph 15 for claims reasonably incurred by Boreas.

(5) The fact that any work or thing has been executed or done with the consent of Boreas and in accordance with any conditions or restrictions prescribed by Boreas or in accordance with any plans approved by Boreas or to its satisfaction or in accordance with any directions or award of any arbitrator does not relieve the undertaker from any liability under this Part.

16. Any dispute arising between the undertaker and Boreas under this Part must be determined by arbitration under article 37 (arbitration).

SCHEDULE 10

Article 34

PART 1
REMOVAL OF HEDGEROWS

<i>(1) Area</i>	<i>(2) Location of hedgerow</i>
North Norfolk District	The hedgerow shown between points 1a and 1b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 2a and 2b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 3a and 3b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 4a and 4b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 5a and 5b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 7a and 7b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 8a and 8b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 9a and 9b on sheet 2 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 10a and 10b on sheet 2 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 11a and 11b on sheet 2 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 12a and 12b on sheet 2 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 13a and 13b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 14a and 14b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 15a and 15b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 16a and 16b on sheet 3 of the tree preservation order and hedgerow plan

North Norfolk District	The hedgerow shown between points 17a and 17b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 18a and 18b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 19a and 19b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 20a and 20b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 21a and 21b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 22a and 22b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 22b and 22c on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 23a and 23b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 25a and 25b on sheets 3 and 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 26a and 26b on sheets 3 and 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 27a and 27b on sheets 3 and 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 29a and 29b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 30a and 30b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 32a and 32b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 33a and 33b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 34a and 34b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 39a and 39b on sheet 5 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 43a and 43b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 44a and

	44b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 45a and 45b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 47a and 47b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 50a and 50b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 51a and 51b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 52a and 52b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 53a and 53b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 54a and 54b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 55a and 55b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 56a and 56b on sheet 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 57a and 57b on sheets 8 and 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 58a and 58b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 59a and 59b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 60a and 60b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 61a and 61b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 62a and 62b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 63a and 63b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 64a and 64b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 65a and 65b on sheet 9 of the tree preservation order

	and hedgerow plan
North Norfolk District	The hedgerow shown between points 66a and 66b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 67a and 67b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 68a and 68b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 69a and 69b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 70a and 70b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 71a and 71b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 72a and 72b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 73a and 73b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 74a and 74b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 75a and 75b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 76a and 76b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 77a and 77b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 78a and 78b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 80a and 80b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 81a and 81b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 82a and 82b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 83a and 83b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 85a and 85b on sheet 9 of the tree preservation order and hedgerow plan

North Norfolk District	The hedgerow shown between points 85c and 85d on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 85e and 85f on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 86a and 86b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 87a and 87b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 88a and 88b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 89a and 89b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 90a and 90b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 92a and 92b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 93a and 93b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 94a and 94b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 95a and 95b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 96a and 96b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 97a and 97b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 98a and 98b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 100a and 100b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 102a and 102b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 103a and 103b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 104a and 104b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 105a and

	105b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 106a and 106b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 107a and 107b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 108a and 108b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 109a and 109b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 110a and 110b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 111a and 111b on sheet 11 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 112a and 112b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 115a and 115b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 116a and 116b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 122a and 122b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 123a and 123b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 124a and 124b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 125a and 125b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 128a and 128b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 129a and 129b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 131a and 131b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 132a and 132b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 133a and 133b on sheet 14 of the tree preservation order

	and hedgerow plan
Broadland District	The hedgerow shown between points 134a and 134b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 135a and 135b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 136a and 136b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 137a and 137b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 138a and 138b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 139a and 139b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 140a and 140b on sheet 14 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 141a and 141b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 142a and 142b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 143a and 143b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 144a and 144b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 145a and 145b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 146a and 146b on sheet 15 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 147a and 147b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 149a and 149b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 150a and 150b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 152a and 152b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 155a and 155b on sheet 17 of the tree preservation order and hedgerow plan

Broadland District	The hedgerow shown between points 156a and 156b on sheet 17 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 157a and 157b on sheet 18 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 158a and 158b on sheet 18 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 160a and 160b on sheet 18 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 161a and 161b on sheet 18 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 162a and 162b on sheet 18 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 163a and 163b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 164a and 164b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 165a and 165b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 167a and 167b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 168a and 168b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 169a and 169b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 170a and 170b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 171a and 171b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 172a and 172b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 177a and 177b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 178a and 178b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 179a and 179b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 180a and

	180b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 181a and 181b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 182a and 182b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 183a and 183b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 184a and 184b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 185a and 185b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 186a and 186b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 187a and 187b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 188a and 188b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 190a and 190b on sheet 22 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 191a and 191b on sheet 22 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 192a and 192b on sheet 22 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 193a and 193b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 194a and 194b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 195a and 195b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 196a and 196b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 197a and 197b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 199a and 199b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 201a and 201b on sheet 24 of the tree preservation order

	and hedgerow plan
Broadland District	The hedgerow shown between points 202a and 202b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 208a and 208b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 209a and 209b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 210a and 210b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 211a and 211b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 213a and 213b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 215a and 215b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 216a and 216b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 217a and 217b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 218a and 218b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 219a and 219b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 220a and 220b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 221a and 221b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 223a and 223b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 224a and 224b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 225a and 225b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 226a and 226b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 227a and 227b on sheet 26 of the tree preservation order and hedgerow plan

South Norfolk District	The hedgerow shown between points 232a and 232b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 233a and 233b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 234a and 234b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 235a and 235b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 236a and 236b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 237a and 237b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 238a and 238b on sheet 27 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 239a and 239b on sheets 27 and 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 240a and 240b on sheets 27 and 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 241a and 241b on sheets 27 and 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 242a and 242b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 243a and 243b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 246a and 246b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 246c and 246d on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 247a and 247b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 248a and 248b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 252a and 252b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 253a and 253b on sheets 28 and 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 254a and

	254b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 256a and 256b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 258a and 258b on sheets 28 and 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 259a and 259b on sheets 28 and 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 262a and 262b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 263a and 263b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 264a and 264b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 266a and 266b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 267a and 267b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 268a and 268b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 269a and 269b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 270a and 270b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 271a and 271b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 272a and 272b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 275a and 275b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 276a and 276b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 278a and 278b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 281a and 281b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 282a and 282b on sheet 30 of the tree preservation order

	and hedgerow plan
South Norfolk District	The hedgerow shown between points 283a and 283b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 284a and 284b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 285a and 285b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 286a and 286b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 287a and 287b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 288a and 288b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 289a and 289b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 290a and 290b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 291a and 291b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 292a and 292b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 293a and 293b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 294a and 294b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 296a and 296b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 297a and 297b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 298a and 298b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 299a and 299b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 300a and 300b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 301a and 301b on sheet 32 of the tree preservation order and hedgerow plan

South Norfolk District	The hedgerow shown between points 303a and 303b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 304a and 304b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 306a and 306b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 308a and 308b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 310a and 310b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 311a and 311b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 312a and 312b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 313a and 313b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 314a and 314b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 315a and 315b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 317a and 317b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 319a and 319b on sheet 31 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 322a and 322b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 326a and 326b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 329a and 329b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 338a and 338b on sheet 34 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 340a and 340b on sheet 34 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 341a and 341b on sheets 35 and 36 of the tree preservation order and hedgerow plan

PART 2
REMOVAL OF IMPORTANT HEDGEROWS

<i>(1) Area</i>	<i>(2) Reference of hedgerow</i>
North Norfolk District	The hedgerow shown between points 6a and 6b on sheet 1 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 24a and 24b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 28a and 28b on sheet 3 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 31a and 31b on sheet 4 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 35a and 35b on sheet 5 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 36a and 36b on sheet 5 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 37a and 37b on sheet 5 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 38a and 38b on sheet 5 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 40a and 40b on sheet 6 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 42a and 42b on sheet 6 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 46a and 46b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 48a and 48b on sheet 7 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 49a and 49b on sheets 7 and 8 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 79a and 79b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 84a and 84b on sheet 9 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 91a and 91b on sheet 10 of the tree preservation order and hedgerow plan
North Norfolk District	The hedgerow shown between points 99a and 99b on sheet 10 of the tree preservation order

	and hedgerow plan
North Norfolk District	The hedgerow shown between points 101a and 101b on sheet 10 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 113a and 113b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 114a and 114b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 117a and 117b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 118a and 118b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 120a and 120b on sheet 12 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 126a and 126b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 127a and 127b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 130a and 130b on sheet 13 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 148a and 148b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 151a and 151b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 151c and 151d on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 153a and 153b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 154a and 154b on sheet 16 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 166a and 166b on sheet 19 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 173a and 173b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 174a and 174b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 175a and 175b on sheet 20 of the tree preservation order and hedgerow plan

Broadland District	The hedgerow shown between points 176a and 176b on sheet 20 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 189a and 189b on sheet 21 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 198a and 198b on sheet 23 of the tree preservation order and hedgerow plan
Broadland District	The hedgerow shown between points 200a and 200b on sheet 23 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 203a and 203b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 204a and 204b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 205a and 205b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 206a and 206b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 207a and 207b on sheet 24 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 212a and 212b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 214a and 214b on sheet 25 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 222a and 222b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 228a and 228b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 229a and 229b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 230a and 230b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 231a and 231b on sheet 26 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 245a and 245b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 249a and 249b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 250a and

	250b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 251a and 251b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 255a and 255b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 257a and 257b on sheet 28 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 261a and 261b on sheets 28 and 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 265a and 265b on sheet 29 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 273a and 273b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 274a and 274b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 277a and 277b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 279a and 279b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 280a and 280b on sheet 30 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 295a and 295b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 302a and 302b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 305a and 305b on sheet 32 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 307a and 307b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 309a and 309b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 316a and 316b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 318a and 318b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 320a and 320b on sheet 33 of the tree preservation order

	and hedgerow plan
South Norfolk District	The hedgerow shown between points 321a and 321b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 323a and 323b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 324a and 324b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 325a and 325b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 327a and 327b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 328a and 328b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 330a and 330b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 331a and 331b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 332a and 332b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 333a and 333b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 334a and 334b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 335a and 335b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 336a and 336b on sheet 33 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 337a and 337b on sheet 34 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 339a and 339b on sheet 34 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 342a and 342b on sheets 35 and 36 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 343a and 343b on sheets 35 and 36 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 344a and 344b on sheet 36 of the tree preservation order and hedgerow plan

South Norfolk District	The hedgerow shown between points 345a and 345b on sheets 35 and 36 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 346a and 346b on sheets 35 and 36 of the tree preservation order and hedgerow plan
South Norfolk District	The hedgerow shown between points 347a and 347b on sheet 36 of the tree preservation order and hedgerow plan

DEEMED MARINE LICENCE UNDER THE 2009 ACT—
GENERATION ASSETS

PART 1

LICENSED MARINE ACTIVITIES

1.—(1) In this licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“array cable” means the network of offshore subsea cables connecting the wind turbine generators in Work No.1 and the offshore substations in Work No.2;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this licence;

“authorised development” means the development and associated development described in Part 1 of Schedule 1 (authorised project) of the Order;

“authorised project” means Work No. 1 described in paragraph 3 of Part 1 of this licence or any part of that work;

“buoy” means any floating device used for navigational purposes or measurement purposes;

“cable protection” means physical measures for the protection of cables including but not limited to concrete mattresses, with or without frond devices, and/or rock placement (but not material used for cable crossings);

“commence” means the first carrying out of any licensed marine activities authorised by this marine licence, save for pre-construction monitoring surveys approved under this licence and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

“Development Principles” means the document certified as the Development Principles by the Secretary of State for the purposes of the Order under article 36 (certification of plans and documents etc);

“disturbance” must be construed in accordance with regulation 45(1)(b) (protection of wild animals listed in Annex IV(a) to the Habitats Directive) of the 2017 Regulations;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“European site” has the meaning given in regulation 27(meaning of European site) of the 2017 Regulations;

“gravity base foundation” means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or

additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan” means the document certified as the in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

“jacket foundation” means a lattice type structure constructed of steel, which may include scour protection and additional equipment such as, J-tubes, corrosion protection systems and access platforms;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;” includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

“Markham’s Triangle MCZ” means the MCZ designated by the Secretary of State under the Markham’s Triangle Marine Conservation Designation Order 2019;

“Markham’s Triangle MCZ exclusion zone” means the area comprising Markham’s Triangle MCZ as shown on the Markham’s Triangle exclusion zone plan;

“Markham’s Triangle exclusion zone plan” means the document certified as the Markham’s Triangle exclusion zone plan by the Secretary of State for the purposes of this Order under article 36;

“MCA” means the Maritime and Coastguard Agency;

“MCZ” means a marine conservation zone designated under section 116(1) (marine conservation zones) of the 2009 Act or any area which is recommended for such designation to the relevant Secretary of State in accordance with the 2009 Act unless the Secretary of State determines that it shall not be designated as a marine conservation zone;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“monopile foundation” means a steel pile, typically cylindrical, driven and/or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the wind turbine generators;

“offshore electrical installations” means the offshore type 1 substations, the offshore type 2 substations, the offshore subsea HVAC booster stations and the offshore HVAC booster stations forming part of the authorised development;

“offshore HVAC booster station” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

- (a) electrical equipment required to provide reactive power compensation; and
- (b) housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the substation;

“offshore subsea HVAC booster station” means a sealed steel or concrete structure located under the surface of the sea, attached to the seabed by means of a foundation, containing electrical equipment required to provide reactive power compensation;

“offshore substation” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

- (a) electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation; and
- (b) housing accommodation, storage, workshop auxiliary equipment, and facilities for operating, maintaining and controlling the substation or wind turbine generators;

“offshore type 1 substation” means the smaller version of the offshore substations assessed in the environment statement;

“offshore type 2 substation” means the larger version of the offshore substations assessed in the environment statement;

“Order” means the Hornsea Project Three Offshore Wind Farm Order 2020;

“the offshore Order limits” means the offshore Order limits defined by the offshore Order limits and grid coordinates plan;

“the offshore Order limits and grid coordinates plan” means the plan certified as the offshore Order limits and grid coordinates plan by the Secretary of State for the purposes of the Order under article 36 of the Order;

“outline fisheries coexistence and liaison plan” means the plan or plans certified as the outline fisheries coexistence and liaison plan or plans by the Secretary of State for the purposes of the Order under article 36 of the Order;

“pin piles” means steel cylindrical piles driven and/or drilled into the seabed to secure jacket foundations;

“statutory historic body” means the Historic Buildings and Monuments Commission for England or its successor in function;

“suction bucket” means a steel cylindrical structure attached to the legs of a jacket foundation which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“mono suction bucket foundation” means a steel cylindrical structure which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential, and may include scour protection and additional equipment such as J-tubes;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UK Hydrographic Office” means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means Orsted Hornsea Project Three (UK) Limited;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” means a structure comprising a tower, rotor with three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation or transition piece;

“Work No. 2” means—

- (a) up to 12 offshore type 1 substations each fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation or box-type gravity base foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;
- (b) up to four offshore type 2 substations each fixed to the seabed by either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base

foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base 1 foundations, or pontoon gravity base 2 foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;

- (c) a network of cables;
 - (d) up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MHWS including one or more cable crossings; and
 - (e) up to eight temporary horizontal directional drilling exit pits; and
- “works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument is construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

(3) Unless otherwise indicated—

- (a) all times are taken to be Greenwich Mean Time (GMT);
- (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.

(4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence are—

- (a) Marine Management Organisation
Marine Licensing Team
Lancaster House Hampshire Court
Newcastle Business Park
Newcastle upon Tyne
NE4 7YH
Tel: 0300 123 1032;
- (b) Marine Management Organisation (local office)
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
- (c) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900;
- (d) The United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900;
- (e) Maritime and Coastguard Agency
Navigation Safety Branch
Bay 2/20, Spring Place

105 Commercial Road
Southampton
SO15 1EG
Tel: 020 3817 2433;

- (f) Centre for Environment, Fisheries and Aquaculture Science

Pakefield Road
Lowestoft
Suffolk
NR33 0HT

Tel: 01502 562 244;

- (g) Natural England

4th Floor
Foss House
1-2 Peasholme Green
York
YO1 7PX

Tel: 0300 060 4911;

- (h) Historic England

Brooklands
24 Brooklands Avenue
Cambridge
CB2 8BU

Details of licensed marine activities

2. Subject to the licence conditions, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable marine activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and articles specified in paragraph 4 below and up to 1,344,318 cubic metres of inert material of natural origin produced during construction drilling or seabed preparation for foundation works and cable sandwave preparation works within Work No. 1;
- (b) the construction of works in or over the sea and/or on or under the sea bed;
- (c) dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works; the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (d) boulder clearance works either by displacement ploughing or subsea grab technique or any other equivalent method;
- (e) removal of static fishing equipment; and
- (f) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of *Work No. 1*—

- (a) an offshore wind turbine generating station with a gross electrical output of over 100 megawatts comprising up to 231 wind turbine generators each fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation or gravity base foundation;

- (b) up to three offshore accommodation platforms fixed to the seabed within the area shown on the works plan by monopile foundation, mono suction bucket foundation, jacket foundation, or gravity base foundation and which may be connected to each other or one of the offshore substations within Work No. 2 by an unsupported bridge; and
- (c) a network of cables between the wind turbine generators and between the wind turbine generators and Work No. 2 including one or more cable crossings.

In connection with such Work No. 1 and to the extent that they do not otherwise form part of any such work, further associated development within the meaning of section 115(2) (development for which development consent may be granted) of the 2008 Act comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised project and which fall within the scope of the work assessed by the environmental statement and the provisions of this licence including—

- (a) scour protection around the foundations of the offshore structures;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices; and
- (c) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised development.

4. The substances or articles authorised for deposit at sea are—

- (a) iron and steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling or seabed preparation for foundation works and cable sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised development comprising Work No. 1 are specified below and more particularly on the offshore Order limits and grid coordinates plan—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
57	53° 52' 12.798" N	2° 19' 38.938" E	61	54° 0' 4.028" N	2° 40' 52.651" E
58	53° 59' 22.420" N	2° 11' 50.694" E	62	53° 48' 57.136" N	2° 44' 53.902" E
59	53° 59' 19.280" N	2° 13' 34.691" E	63	53° 41' 22.175" N	2° 47' 35.927" E
60	53° 58' 42.514" N	2° 32' 43.904" E	64	53° 45' 27.296" N	2° 34' 19.781" E

6. This licence remains in force until the authorised project has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of sections 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of section 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 5 (benefit of the Order).

8. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or scheme are taken to include any amendments that may subsequently be approved in writing by the MMO.

9. Any amendments to or variations from the approved plans, protocols or statements must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

PART 2 CONDITIONS

Design parameters

1.—(1) The total number of wind turbine generators comprised in the authorised project must not exceed 231 and a total rotor swept area of 8.8 square kilometres.

(2) Subject to paragraph (3), each wind turbine generator forming part of the authorised project must not—

- (a) exceed a height of 325 metres when measured from LAT to the tip of the vertical blade;
- (b) exceed a rotor diameter of 265 metres;
- (c) be less than 41.8 metres from LAT to the lowest point of the rotating blade; and
- (d) be less than one kilometre from the nearest wind turbine generator in all directions.

(3) The reference in sub-paragraph 1(2)(d) to the location of a wind turbine generator is a reference to the centre point of that wind turbine generator.

(4) Wind turbine generator foundation structures forming part of the authorised scheme must be one of the following foundation options: monopile foundation, mono suction bucket foundation, jacket foundation or gravity base foundation.

(5) No wind turbine generator—

- (a) jacket foundation employing pin piles forming part of the authorised project shall have a pin pile diameter of greater than four metres; and
- (b) monopile foundation forming part of the authorised project shall have a diameter greater than 15 metres.

(6) The total seabed footprint area for wind turbine generator foundations must not exceed—

- (a) 435,660 square metres excluding scour protection; and
- (b) 1,623,182 square metres including scour protection.

(7) The volume of scour protection material for wind turbine generator foundations must not exceed 2,375,044 cubic metres.

2.—(1) The total number of offshore accommodation platforms forming part of the authorised project must not exceed three.

(2) The dimensions of any offshore accommodation platform forming part of the authorised project must not exceed—

- (a) 64 metres in height when measured from LAT;
- (b) 60 metres in length; and
- (c) 60 metres in width.

(3) Any bridge located on an offshore accommodation platform shall be no longer than 100 metres.

(4) Offshore accommodation platform foundation structures forming part of the authorised project must be one of the following foundation options: monopile foundations, mono suction bucket foundations, jacket foundations, or gravity base foundations.

(5) No offshore accommodation platform—

- (a) jacket foundation employing pin piles forming part of the authorised project shall have a pin pile diameter of greater than 4 metres; and
 - (b) monopile foundation forming part of the authorised project shall have a diameter greater than 15 metres.
- (6) The total seabed footprint area for offshore accommodation platform foundations must not exceed—
- (a) 8,836 square metres excluding scour protection; and
 - (b) 28,628 square metres including scour protection.
- (7) The volume of scour protection material for offshore accommodation platform foundations must not exceed 43,429 cubic metres.
- (8) The total number of cable crossings when combined with the deemed marine licence granted under Schedule 12 (deemed marine licence under the 2009 Act – transmission assets) of the Order must not exceed 44, unless otherwise agreed between the undertaker and the MMO.
- (9) No works permitted under this licence may be undertaken within the boundaries of the Markham’s Triangle MCZ exclusion zone.

3.—(1) The total length of the cables in Work No.1(c) and the volume of their cable protection (excluding cable crossings) when combined with the cable authorised under Work No.2(c) of the deemed marine licence granted under Schedule 12 of the Order must not exceed the following—

<i>Work</i>	<i>Length</i>	<i>Cable protection</i>
Work No. 1(c)	1055 kilometres	1,055,000 cubic metres

- (2) No cable protection by way of concrete mattresses may be used in European Sites or MCZ.
- (3) No more than 6% of the length of the cables in Work No 1(c) falling within any European Site shall be subject to cable protection, unless otherwise agreed with the MMO.
- (4) No more than 7% of the length of the cables in Work No 1(c) falling within any MCZ shall be subject to cable protection, unless otherwise agreed with the MMO.
- (5) Any cable protection authorised under this licence must be deployed within 15 years from the date of the grant of the Order unless otherwise agreed by the MMO.

Phases of authorised development

- 4.—(1) The authorised development may not be commenced until a written scheme setting out the phases of construction of the authorised project has been submitted to and approved by the MMO.
- (2) The phases of construction referred to in paragraph (1) shall not exceed two, save that each phase may be undertaken in any number of stages as prescribed in the written scheme.
- (3) The scheme must be implemented as approved.

Maintenance of the authorised development

- 5.—(1) The undertaker may at any time maintain the authorised development, except to the extent that this licence or an agreement made under this licence provides otherwise.
- (2) No maintenance works whose likely effects are not assessed in the environmental statement may be carried out, unless otherwise approved by the MMO.
- (3) Maintenance works include but are not limited to—
 - (a) major wind turbine component or offshore accommodation platform replacement;
 - (b) painting wind turbine generators or offshore accommodation platforms;
 - (c) bird waste removal;
 - (d) cable remedial burial;
 - (e) array cable repairs;

- (f) access ladder replacement;
- (g) wind turbine generator anode replacement; and
- (h) J-tube repair/replacement.

(4) Where the MMO's approval is required under paragraph (2), approval may be given only where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

(5) The undertaker shall issue to operators of vessels under its control operating within the Order limits a code of conduct to prevent collision risk or injury to marine mammals.

(6) The undertaker shall ensure appropriate co-ordination of vessels within its control operating within the Order limits so as to reduce collision risk to other vessels including advisory safe passing distances for vessels.

Extension of time periods

6. Any time period given in this licence given to either the undertaker or the MMO may be extended with the agreement of the other party.

Notifications and inspections

7.—(1) The undertaker must ensure that—

- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 16; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 16; and
- (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph (a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.

(2) Only those persons and vessels notified to the MMO in accordance with condition 16 are permitted to carry out the licensed activities.

(3) Copies of this licence must also be available for inspection at the following locations—

- (a) the undertaker's registered address;
- (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
- (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.

(4) The documents referred to in sub-paragraph (1)(a) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3)(b) above.

(5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised project.

(6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licenced activity.

(7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised project or relevant part—

- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
- (b) on completion of construction of all offshore activities,

and confirmation of notification must be provided to the MMO within five days.

(8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work No. 1 and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO and UKHO within five days.

(9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme approved under condition 13(1)(b). Copies of all notices must be provided to the MMO and UKHO within five days.

(10) The undertaker must notify the UK Hydrographic Office both of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO.

(11) In case of damage to, or destruction or decay of, the authorised project seaward of MHWS or any part thereof the undertaker must as soon as possible and no later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish and the UK Hydrographic Office.

(12) In case of the development of a cable exposure deemed by the undertaker to present a risk to fishing activity, the undertaker must notify mariners by issuing a notice to mariners and notify the MMO and the Kingfisher Information Service within three working days following the undertaker becoming aware of it.

Aids to navigation

8.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning of the authorised project seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised project to completion of decommissioning of the authorised project seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised project seaward of MHWS including the following—

- (a) notice of commencement of construction of the authorised project within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised project.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 13(1)(j) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning of the authorised project seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 7(11) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

9.—(1) The undertaker must colour all structures yellow (colour code RAL 1023) from at least highest astronomical tide to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

(2) Subject to sub-paragraph (1) above, unless the MMO otherwise directs, the undertaker must ensure that the wind turbine generators are painted light grey (colour code RAL 7035).

Aviation safety

10.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, and the MMO, at least 14 days prior to the commencement of the authorised project, in writing of the following information—

- (a) the date of the commencement of construction of the authorised project;
- (b) the date any wind turbine generators are brought into use;
- (c) the maximum height of any construction equipment to be used;
- (d) the maximum heights of any wind turbine generator and offshore accommodation platform to be constructed;
- (e) the latitude and longitude of each wind turbine generator and offshore accommodation platform to be constructed,

and the Defence Infrastructure Organisation Safeguarding must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised project.

Chemicals, drilling and debris

11.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised project must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002^(b) (as amended).

(2) The undertaker must ensure that any coatings/treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers.

(4) The undertaker must inform the MMO of the location and quantities of material disposed of each month under the Order, by submission of a disposal return by 31 January each year for the months August to January inclusive, and by 31 July each year for the months February to July inclusive.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(6) The undertaker must ensure that any rock material used in the construction of the authorised project is from a recognised source, free from contaminants and containing minimal fines.

(7) In the event that any rock material used in the construction of the authorised project is misplaced or lost below MHWS, the undertaker must report the loss to the District Marine Office within 48 hours and if the MMO reasonably considers such material to constitute a navigation or

(a) S.I. 2016/765.

(b) S.I. 2002/1355.

environmental hazard (dependent on the size and nature of the material) the undertaker must endeavour to locate the material and recover it.

(8) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained to prevent run off entering the water through the freeing ports.

(9) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 13(1)(d)(i).

(10) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

12.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life and/or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit must be notified to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

Pre-construction plans and documentation

13.—(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) has been submitted to and approved in writing by the MMO, in consultation with Trinity House and the MCA—

(a) A design plan at a scale of between 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, which shows—

- (i) the proposed location, including grid co-ordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions and choice of foundation types for all wind turbine generators and offshore accommodation platforms;
- (ii) the number, specifications and dimensions of the wind turbine generators in that phase;
- (iii) the length and arrangement of cable comprising Work No. 1(c);
- (iv) the dimensions of all monopile foundations, mono suction bucket foundations, jacket foundations or gravity base foundations; and
- (v) any exclusion zones or micrositing requirements identified in any mitigation project pursuant to sub-paragraph 13(2)(d) or relating to any Annex I reefs identified as part of surveys undertaken in accordance with condition 17;

to ensure conformity with the description of Work No. 1 and compliance with conditions 1 to 3 above;

(b) a construction programme to include details of—

- (i) the proposed construction start date;
- (ii) proposed timings for mobilisation of plant delivery of materials and installation works; and
- (iii) an indicative written construction programme for all wind turbine generators offshore accommodation platforms and cable comprised in the works at paragraph

3(a) to 3(b) of Part 1 (licenced marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);

unless otherwise agreed in writing with the MMO;

- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation and cable installation works and having regard to any mitigation scheme pursuant to subparagraph 13(1)(f);
 - (ii) advisory safe passing distances for vessels around construction sites;
 - (iii) cable installation;
 - (iv) contractors;
 - (v) vessels and vessels transit corridors;
 - (vi) codes of conduct for vessel operators;
 - (vii) associated ancillary works;
 - (viii) guard vessels to be employed; and
 - (ix) details of means to avoid impacts on European sites;
- (d) a project management plan and monitoring plan covering the period of construction and operation to include details of—
 - (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents of the authorised project in relation to all activities carried out;
 - (ii) a chemical risk assessment to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a biosecurity plan detailing how the risk of introduction and spread of invasive non-native species will be minimised;
 - (iv) waste management and disposal arrangements;
 - (v) a code of conduct for vessel operators;
 - (vi) the appointment and responsibilities of a fisheries liaison officer; and
 - (vii) all spatial data for archaeological exclusion zones and application of a protocol for archaeological discoveries;
- (e) a scour protection management plan providing details of the need, type, sources, quantity and installation methods for scour protection, which must be updated and resubmitted for approval if changes to it are proposed following cable laying operations;
- (f) proposed pre-construction monitoring surveys, construction monitoring, post-construction monitoring and related reporting in accordance with conditions 17, 18 and 19;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals, including details of soft start procedures with specified duration periods following current best practice as advised by the relevant statutory nature conservation bodies;
- (h) a cable specification and installation plan, to include—
 - (i) technical specification of offshore cables below MHWS, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice;
 - (ii) a sandwave clearance plan for all designated sites affected, including details of the volumes of material to be dredged, timing of works, locations for disposal and monitoring proposals;

- (iii) a detailed cable laying plan for the Order limits, incorporating a burial risk assessment encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection;
 - (iv) a cable protection plan for all designated sites where cable protection is required, including details of the volumes, material, locations and seabed footprints for cable protection measures, where required, consideration of alternative methods of protection and monitoring proposals and provision for review and update of the plan for a period of 15 years from the date of the grant of the Order;
 - (v) proposals for the volume and areas of cable protection to be used for each cable crossing; and
 - (vi) proposals for monitoring offshore cables including cable protection during the operational lifetime of the authorised project which includes a risk based approach to the management of unburied or shallow buried cables, and, where necessary, details of micro-siting through any European Site.
- (i) an offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase;
 - (j) an aid to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 8 for the lifetime of the authorised project;
 - (k) a plan for marine mammal monitoring setting out the circumstances in which marine mammal monitoring will be required and the monitoring to be carried out in such circumstances; and
 - (l) an ornithological monitoring plan setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances.
- (2) The licensed activities or any part of those activities must not commence unless no later than 6 months prior to the commencement a written scheme of archaeological investigation has been submitted to and approved by the MMO, in accordance with the outline offshore written scheme of investigation, and in accordance with industry good practice, in consultation with the statutory historic body to include—
- (a) details of responsibilities of the undertaker, archaeological consultant and contractor;
 - (b) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
 - (c) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within six months of any survey being completed;
 - (d) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones prior to construction;
 - (e) monitoring of archaeological exclusion zones during and post construction, including provision of a report on such monitoring;
 - (f) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS ('Online AccesS to the Index of archaeological investigationS') form with a digital copy of the report within six months of completion of construction of the authorised scheme, and to notify the MMO that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;
 - (g) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised scheme;

- (h) implementation of the Offshore Renewables Protocol for Reporting Archaeological Discoveries as set out by The Crown Estate; and
- (i) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.

(3) Pre-construction archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline offshore written scheme of investigation) which has been submitted to and approved by the MMO.

(4) The licensed activities or any part of those activities must not commence until a fisheries coexistence and liaison plan in accordance with the outline fisheries coexistence and liaison plan has been submitted to and approved by the MMO.

(5) In the event that driven or part-driven pile foundations are proposed to be used, the licensed activities, or any phase of those activities must not commence until a Site Integrity Plan which accords with the principles set out in the in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan has been submitted to the MMO and the MMO is satisfied that where the plan assesses that mitigation is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of the Southern North Sea Special Area of Conservation, it provides for such mitigation, to the extent that harbour porpoise are a protected feature of that site.

(6) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed 5,000kJ.

14.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 13 (save for that required under condition 13(1)(f)) must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The pre-construction monitoring surveys, construction monitoring, post-construction monitoring and related reporting required under condition 13(1)(f) must be submitted in accordance with the following, unless otherwise agreed in writing with the MMO—

- (a) at least four months prior to the first survey, detail of any pre-construction surveys and an outline of all proposed monitoring;
- (b) at least four months prior to construction, detail on construction monitoring; and
- (c) at least four months prior to commissioning, detail of post-construction (and operational) monitoring;

(3) The design plan required by condition 13(1)(a) shall be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(4) The MMO shall determine an application for approval made under condition 13 within a period of four months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(5) The licensed activities must be carried out in accordance with the approved plans, protocols, statements, schemes and details approved under condition 13, unless otherwise agreed in writing by the MMO.

Offshore safety management

15. No part of the authorised scheme may commence until the MMO, in consultation with the MCA, has given written approval of an Emergency Response Co-operation Plan (ERCoP) which includes full details of the plan for emergency response and co-operation for the construction, operation and decommissioning phases of that part of the authorised scheme in accordance with the MCA recommendations contained within MGN543 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it), and has confirmed in writing that the

undertaker has taken into account and, so far as is applicable to that part of the authorised scheme, adequately addressed all MCA recommendations contained within MGN543 and its annexes.

Reporting of engaged agents, contractors and vessels

16.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised scheme a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

17.—(1) The undertaker must in discharging condition 13(1)(f) submit a monitoring plan or plans in accordance with an in-principle monitoring plan for written approval by the MMO in consultation with the relevant statutory bodies, which shall contain details of proposed surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report and;

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) the baseline report proposals must ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition, the pre-construction surveys must comprise, in outline—

- (a) a high-resolution swath bathymetric survey to include a 100% coverage and a side-scan sonar survey of the parts of the offshore Order limits within which it is proposed to carry out construction works and disposal activities under this licence, to—
 - (i) determine the location, extent and composition of any biogenic or geogenic reef features, as set out within the in-principle monitoring plan;
 - (ii) inform future navigation risk assessments as part of the cable specification and installation plan;
 - (iii) inform the identification of any archaeological exclusion zone and post consent monitoring of any such archaeological exclusion zone; and
 - (iv) to identify and characterise any preferred sandeel habitat.
- (b) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 13(1)(k); and
- (c) any ornithological monitoring required by the Ornithological Monitoring Plans submitted in accordance with condition 13(1)(l).

(3) The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Construction monitoring

18.—(1) The undertaker must in discharging condition 13(1)(f) submit a construction monitoring plan or plans for written approval by the MMO in consultation with the relevant

statutory nature conservation body, which shall include details of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition the construction monitoring plan must include, in outline—

- (a) where piled foundations are to be employed, unless otherwise agreed by the MMO in writing, details of proposed monitoring of the noise generated by the installation of the first four monopile foundations to be constructed under this licence;
- (b) a plan for monitoring of the duration of piling activity; and
- (c) details of vessel traffic monitoring by automatic identification system for the duration of the construction period including obligations to report annually to the MMO, Trinity House and the MCA during the construction phase of the authorised development.

(3) The results of the initial noise measurements monitored in accordance with condition 18(2)(a) must be provided to the MMO within six weeks of the installation of the first four piled foundations of each piled foundation type. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.

(4) The undertaker must carry out the surveys specified within the construction monitoring plan or plans in accordance with that plan or plans, including any further noise monitoring required in writing by the MMO under condition 18(3), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Post-construction monitoring

19.—(1) The undertaker must in discharging condition 13(1)(f) submit a post-construction monitoring plan or plans for written approval by the MMO in consultation with the relevant statutory nature conservation body including details of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the preconstruction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals the post-construction survey plan or plans must include, in outline—

- (a) a survey to determine any change in the location, extent and composition of any biogenic or geogenic reef feature identified in the pre-construction survey in the parts of the offshore Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;
- (b) any marine mammal monitoring required by the plan for marine mammal monitoring submitted in accordance with condition 13(1)(k);
- (c) any ornithological monitoring required by the Ornithological Monitoring Plans submitted in accordance with condition 13(1)(l);
- (d) details of vessel traffic monitoring by automatic identification system, for a period of 28 individual days taking account seasonal variations in traffic patterns over the course of one year to be submitted to the MMO, Trinity House and the MCA no later than one year following completion of the construction phase of the authorised development;

- (e) a full sea floor coverage swath-bathymetry survey of the areas within which construction activity has taken place in order to inform of any dropped objects or residual navigational risk to be submitted to the MMO and MCA;
- (f) a bathymetric survey to monitor the effectiveness of archaeological exclusion zones identified to have been potentially impacted by construction works. The data shall be analysed by an accredited archaeologist as defined in the offshore written scheme of investigation required under condition 13(2);
- (g) a high resolution swath bathymetric and side scan sonar survey to determine any change to the seabed morphology and composition around a representative number of WTG foundations within muddy sediments of the outer Silver Pit and Markham's Hole features, in accordance with the scour monitoring detailed within the in-principle monitoring plan; and
- (h) a high resolution swath-bathymetric and side scan sonar survey to determine any change and recovery in the composition of any preferred sandeel habitat identified in the pre-construction survey in the parts of the offshore Order limits in which sandwave clearance activity has been carried out. The survey design must be informed by the results of the pre-construction benthic survey.

(3) The undertaker must carry out the surveys agreed under condition 19(1) and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation body.

Timing of monitoring report

20. Any monitoring report compiled in accordance with the monitoring plans provided under conditions 17, 18 and 19 must be provided to the MMO no later than four months following completion of the monitoring to which it relates, unless otherwise agreed with the MMO.

Updating of cable monitoring plan

21. Following installation of cables, the cable monitoring plan required under condition 13(1)(h)(vi) must be updated with the results of the post-installation surveys. The plan must be implemented during the operational lifetime of the project and reviewed as specified within the plan, following cable burial surveys, or as instructed by the MMO.

Reporting of impact pile driving

22.—(1) Only when driven or part-driven pile foundations or detonation of explosives are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry's Forward Look requirements;
- (b) at six-month intervals following the commencement of pile driving/detonation of explosives, information on the locations and dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry's Close Out requirements; and
- (c) within 12 weeks of completion of impact pile driving/detonation of explosives, information on the locations and dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry's Close Out requirements.

(2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.

(3) For the purpose of this condition—

- (a) “Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas; and
- (b) “Forward Look” and “Close Out” requirements are as set out in the UK Marine Noise Registry Information.

Reporting of cable protection

23.—(1) Not more than 4 months following completion of the construction phase of the project, the undertaker shall provide the MMO and the relevant SNCBs with a report setting out details of the cable protection used for the authorised scheme.

(2) The report shall include the following information—

- (a) location of the cable protection;
- (b) volume of cable protection; and
- (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Decommissioning of cable protection within marine protected areas

24.—(1) The obligations under paragraphs (2) and (3) shall only apply if and to the extent that—

- (a) cable protection is installed as part of the authorised project within an area designated as a European Site or MCZ as at the date of the grant of the Order; and
- (b) it is a requirement of the written decommissioning programme approved by the Secretary of State pursuant to sections 105 (requirement to prepare decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108 (reviews and revisions of decommissioning programmes), that such cable protection is removed as part of the decommissioning of the authorised project.

(2) Within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the undertaker shall carry out an appropriate survey of cables within Work No. 1(c), that are subject to cable protection and that are situated within any European Site or MCZ to assess the integrity and condition of that cable protection and determine the appropriate extent of the feasibility of the removal of such cable protection having regard to the condition of the cable protection and feasibility of any new removal techniques at that time, and submit that along with a method statement for recovery of cable protection to the MMO.

(3) Within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the MMO must confirm whether or not it is satisfied with the method statement pursuant to (2) above.

(4) If the MMO has confirmed it is satisfied pursuant to (3) above, then within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the undertaker shall endeavour to recover the cable protection to the extent identified in the survey and according to the methodology set out in the method statement submitted pursuant to (2) above.

DEEMED MARINE LICENCE UNDER THE 2009 ACT –
TRANSMISSION ASSETS

PART 1

LICENSED MARINE ACTIVITIES

1.—(1) In this licence—

“the 2004 Act” means the Energy Act 2004;

“the 2008 Act” means the Planning Act 2008;

“the 2009 Act” means the Marine and Coastal Access Act 2009;

“2017 Regulations” means the Conservation of Offshore Marine Habitats and Species Regulations 2017;

“Annex I reef” means a reef of a type listed in Annex I of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora;

“authorised deposits” means the substances and articles specified in paragraph 4 of Part 1 of this licence;

“authorised development” means the development and associated development described in Part 1 of Schedule 1 of the Order;

“authorised project” means Work Nos. 2, 3, 4 and 5 as described in paragraph 3 of Part 1 of this licence or any part of that work;

“buoy” means any floating device used for navigational purposes or measurement purposes;

“cable protection” means physical measures for the protection of cables including but not limited to concrete mattresses, with or without frond devices, and/or rock placement (but not material used for cable crossings);

“commence” means the first carrying out of any licensed marine activities authorised by this marine licence, save for pre-construction monitoring surveys approved under this licence and “commenced” and “commencement” must be construed accordingly;

“condition” means a condition in Part 2 of this licence;

“Defence Infrastructure Organisation Safeguarding” means Ministry of Defence Safeguarding, Defence Infrastructure Organisation, Kingston Road, Sutton Coldfield, West Midlands B75 7RL and any successor body to its functions;

“Development Principles” means the document certified as the Development Principles by the Secretary of State for the purposes of the Order under article 36 (certification of plans and documents etc);

“disturbance” must be construed in accordance with regulation 45(1)(b) (protection of wild animals listed in Annex IV(a) to the Habitats Directive) of the 2017 Regulations;

“enforcement officer” means a person authorised to carry out enforcement duties under Chapter 3 of Part 4 (marine licensing) of the 2009 Act;

“environmental statement” means the document certified as the environmental statement by the Secretary of State for the purposes of the Order;

“European site” has the meaning given in regulation 27 of the 2017 Regulations;

“gravity base foundation” means a structure principally of steel, concrete, or steel and concrete which rests on the seabed either due to its own weight with or without added ballast or additional skirts and associated equipment including scour protection, J-tubes, corrosion protection systems and access platform(s) and equipment;

“in-principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan” means the document certified as the in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan by the Secretary of State for the purposes of this Order;

“interconnector cable” means a network of cables between the offshore substations;

“jacket foundation” means a lattice type structure constructed of steel, which may include scour protection and additional equipment such as, J-tubes, corrosion protection systems and access platforms;

“Kingfisher Fortnightly Bulletin” means the bulletin published by the Humber Seafood Institute or such other alternative publication approved in writing by the MMO for the purposes of this licence;

“LAT” means lowest astronomical tide;

“licensed activities” means the activities specified in Part 1 of this licence;

“maintain” includes inspect, upkeep, repair, adjust, and alter and further includes remove, reconstruct and replace, to the extent assessed in the environmental statement; and “maintenance” must be construed accordingly;

“Marine Management Organisation” or “MMO” means the body created under the 2009 Act which is responsible for the monitoring and enforcement of this licence;

“Markham’s Triangle MCZ” means the MCZ designated by the Secretary of State under the Markham’s Triangle Marine Conservation Designation Order 2019;

“Markham’s Triangle MCZ exclusion zone” means the area comprising Markham’s Triangle MCZ as shown on the Markham’s Triangle exclusion zone plan;

“Markham’s Triangle exclusion zone plan” means the document certified as the Markham’s Triangle exclusion zone plan by the Secretary of State for the purposes of this Order under article 36 (certification of plans and documents etc);

“MCZ” means a marine conservation zone designated under section 116(1) (marine conservation zones) of the 2009 Act or any area which is recommended for such designation to the relevant secretary of state in accordance with the 2009 Act unless the Secretary of State determines that it shall not be designated as a marine conservation zone;

“MCA” means the Maritime and Coastguard Agency;

“mean high water springs” or “MHWS” means the highest level which spring tides reach on average over a period of time;

“monopile foundation” means a steel pile, typically cylindrical, driven and/or drilled into the seabed and associated equipment including scour protection, J-tubes, corrosion protection systems and access platforms and equipment;

“offshore accommodation platform” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the wind turbine generators;

“offshore electrical installations” means the offshore type 1 substations, the offshore type 2 substations, the offshore subsea HVAC booster stations and the offshore HVAC booster stations forming part of the authorised development;

“offshore export cable” means a network of cables for as described in Work No.2(d) and Work No.3(d).

“offshore HVAC booster station” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

- (a) electrical equipment required to provide reactive power compensation; and
- (b) housing accommodation, storage, workshop, auxiliary equipment, and facilities for operating, maintaining and controlling the substation;

“offshore subsea HVAC booster station” means a sealed steel or concrete structure located under the surface of the sea, attached to the seabed by means of a foundation, containing electrical equipment required to provide reactive power compensation;

“offshore substation” means a structure above LAT and attached to the seabed by means of a foundation, with one or more decks and a helicopter platform, containing—

- (a) electrical equipment required to switch, transform, convert electricity generated at the wind turbine generators to a higher voltage and provide reactive power compensation; and
- (b) housing accommodation, storage, workshop auxiliary equipment, and facilities for operating, maintaining and controlling the substation or wind turbine generators;

“offshore type 1 substation” means the smaller version of the offshore substations assessed in the environment statement;

“offshore type 2 substation” means the larger version of the offshore substations assessed in the environment statement;

“the offshore Order limits” means the offshore Order limits defined by the offshore Order limits and grid coordinates plan;

“the offshore Order limits and grid coordinates plan” means the plan certified as the offshore Order limits and grid coordinates plan by the Secretary of State for the purposes of the Order under article 36;

“pin piles” means steel cylindrical piles driven and/or drilled into the seabed to secure jacket foundations;

“SAC” means an area designated as an area of special area of conservation under regulation 11 (designation of special areas of conservation) of the 2017 Regulations;

“statutory historic body” means Buildings and Monuments Commission for England, the relevant local authority or its successor in function;

“suction bucket” means a steel cylindrical structure attached to the legs of a jacket foundation which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential;

“Order” means the Hornsea Project Three Offshore Wind Farm Order 2020;

“mono suction bucket foundation” means a steel cylindrical structure which partially or fully penetrates the seabed and remains in place using its own weight and hydrostatic pressure differential, and may include scour protection and additional equipment such as J-tubes;

“Trinity House” means the Corporation of Trinity House of Deptford Strond;

“UK Hydrographic Office” means the UK Hydrographic Office of Admiralty Way, Taunton, Somerset, TA1 2DN;

“undertaker” means Orsted Energy Hornsea Project Three (UK) Limited;

“vessel” means every description of vessel, however propelled or moved, and includes a non-displacement craft, a personal watercraft, a seaplane on the surface of the water, a hydrofoil vessel, a hovercraft or any other amphibious vehicle and any other thing constructed or adapted for movement through, in, on or over water and which is at the time in, on or over water;

“wind turbine generator” means a structure comprising a tower, rotor with three blades connected at the hub, nacelle and ancillary electrical and other equipment which may include J-tube(s), transition piece, access and rest platforms, access ladders, boat access systems, corrosion protection systems, fenders and maintenance equipment, helicopter landing facilities and other associated equipment, fixed to a foundation or transition piece; and

“works plan” means the plan certified as the works plan by the Secretary of State for the purposes of the Order.

(2) A reference to any statute, order, regulation or similar instrument is construed as a reference to a statute, order, regulation or instrument as amended by any subsequent statute, order, regulation or instrument or as contained in any subsequent re-enactment.

- (3) Unless otherwise indicated—
- (a) all times are taken to be Greenwich Mean Time (GMT);
 - (b) all co-ordinates are taken to be latitude and longitude degrees and minutes to two decimal places.
- (4) Except where otherwise notified in writing by the relevant organisation, the primary point of contact with the organisations listed below and the address for returns and correspondence are—
- (a) Marine Management Organisation
Marine Licensing Team
Lancaster House Hampshire Court
Newcastle Business Park
Newcastle upon Tyne
NE4 7YH
Tel: 0300 123 1032;
 - (b) Marine Management Organisation (local office)
Pakefield Road
Lowestoft
Suffolk
NR33 0HT;
 - (c) Trinity House
Tower Hill
London
EC3N 4DH
Tel: 020 7481 6900;
 - (d) The United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset
TA1 2DN
Tel: 01823 337 900;
 - (e) Maritime and Coastguard Agency
Navigation Safety Branch
Bay 2/20, Spring Place
105 Commercial Road
Southampton
SO15 1EG
Tel: 020 3817 2433;
 - (f) Centre for Environment, Fisheries and Aquaculture Science
Pakefield Road
Lowestoft
Suffolk
NR33 0HT
Tel: 01502 562 244;
 - (g) Natural England
4th Floor

Foss House
1-2 Peasholme Green
York
YO1 7PX
Tel: 0300 060 4911;

- (h) Historic England
Brooklands
24 Brooklands Avenue
Cambridge
CB2 8BU.

Details of licensed marine activities

2. Subject to the licence conditions, this licence authorises the undertaker (and any agent or contractor acting on their behalf) to carry out the following licensable marine activities under section 66(1) (licensable offshore activities) of the 2009 Act—

- (a) the deposit at sea within the Order limits seaward of MHWS of the substances and articles specified in paragraph 4 below and up to 2,218,816 cubic metres of inert material of natural origin produced during construction drilling or seabed preparation for foundation works and cable sandwave preparation works within Work Nos. 2, 3, 4 and 5;
- (b) the construction of works in or over the sea or on or under the sea bed; dredging for the purposes of seabed preparation for foundation works and/or electrical circuit works;
- (c) boulder clearance works either by displacement ploughing or subsea grab technique or any other equivalent method;
- (d) the removal of sediment samples for the purposes of informing environmental monitoring under this licence during pre-construction, construction and operation;
- (e) removal of static fishing equipment; and
- (f) site preparation works.

3. Such activities are authorised in relation to the construction, maintenance and operation of—

Work No.2—

- (a) up to 12 offshore type 1 substations each fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation or box-type gravity base foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;
- (b) up to four offshore type 2 substations each fixed to the seabed by either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base 1 foundations, or pontoon gravity base 2 foundations and which may be connected to each other or one of the offshore accommodation platforms within Work No.1(b) by an unsupported bridge;
- (c) a network of cables;
- (d) up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MHWS including one or more cable crossings; and
- (e) up to eight temporary horizontal directional drilling exit pits.

Work No.3—

- (a) in the event that the mode of transmission is HVAC, up to four HVAC booster stations fixed to the seabed within the area shown on the works plan by either monopile

foundation, mono suction bucket foundation, jacket foundation, gravity base foundation, or box-type gravity base foundations;

- (b) in the event that the mode of transmission is HVAC, up to six offshore subsea HVAC booster stations fixed to the seabed by either monopile foundation, mono suction bucket foundation, jacket foundation, gravity base foundation, or box-type gravity base foundations;
- (c) in the event that the mode of transmission is HVAC, a network of cables between HVAC booster stations or offshore subsea HVAC booster stations; and
- (d) up to six cable circuits between Work No. 2 and Work No. 3, and between Work No. 3 and Work No.5 consisting of offshore export cables along routes within the Order limits seaward of MHWS including one or more cable crossings.

Work No. 4— a temporary work area associated with Work No.2 and Work No.3 for vessels to carry out intrusive activities alongside Work No.2 or Work No.3.

Work No. 5— landfall connection works comprising up to six cable circuits and ducts and onshore construction works within the Order limits seaward of MHWS and landward of MLWS.

In connection with such Works Nos. 2, 3, 4 and 5 and to the extent that they do not otherwise form part of any such work, further associated development within the meaning of section 115(2) of the 2008 Act comprising such other works as may be necessary or expedient for the purposes of or in connection with the relevant part of the authorised scheme and which fall within the scope of the work assessed by the environmental statement and the provisions of this license, including—

- (a) scour protection around the foundations of the offshore electrical installations;
- (b) cable protection measures such as the placement of rock and/or concrete mattresses, with or without frond devices;
- (c) the removal of material from the seabed required for the construction of Work Nos. 2, 3, 4 and 5 and the disposal of up to 2,218,816 cubic metres of inert material of natural origin within Order limits produced during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
- (d) temporary landing places, moorings or other means of accommodating vessels in the construction and/or maintenance of the authorised development.

4. The substances or articles authorised for deposit at sea are—

- (a) iron and steel, copper and aluminium;
- (b) stone and rock;
- (c) concrete;
- (d) sand and gravel;
- (e) plastic and synthetic;
- (f) material extracted from within the offshore Order limits during construction drilling and seabed preparation for foundation works and cable sandwave preparation works; and
- (g) marine coatings, other chemicals and timber.

5. The grid coordinates for that part of the authorised development comprising Work Nos. 2, 3, 4 and 5 are specified below and more particularly on the offshore Order limits and grid coordinates plan—

<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>	<i>Point ID</i>	<i>Latitude (DMS)</i>	<i>Longitude (DMS)</i>
1	52° 57' 23.299" N	1° 5' 48.611" E	64	53° 45' 27.296" N	2° 34' 19.781" E
2	52° 58' 22.516" N	1° 4' 22.810" E	65	53° 45' 17.155" N	2° 33' 57.193" E
3	52° 59' 43.107" N	1° 3' 16.300" E	66	53° 44' 25.151" N	2° 28' 22.483" E
4	53° 0' 12.806" N	1° 3' 4.176" E	67	53° 43' 43.437" N	2° 23' 42.266" E

5	53° 0' 41.322" N	1° 3' 5.626" E	68	53° 43' 38.549" N	2° 23' 1.918" E
6	53° 2' 15.365" N	1° 3' 25.796" E	69	53° 40' 30.736" N	2° 17' 49.303" E
7	53° 4' 22.383" N	1° 5' 4.618" E	70	53° 37' 10.969" N	2° 7' 19.167" E
8	53° 4' 48.739" N	1° 5' 38.118" E	71	53° 37' 2.480" N	2° 6' 39.277" E
9	53° 5' 0.912" N	1° 6' 53.813" E	72	53° 36' 20.389" N	2° 5' 9.581" E
10	53° 4' 56.963" N	1° 8' 49.809" E	73	53° 35' 18.067" N	2° 5' 0.546" E
11	53° 4' 47.089" N	1° 10' 20.278" E	74	53° 34' 58.529" N	2° 4' 49.759" E
12	53° 4' 50.116" N	1° 12' 8.936" E	75	53° 34' 37.908" N	2° 4' 16.626" E
13	53° 5' 1.606" N	1° 14' 7.325" E	76	53° 32' 54.718" N	2° 4' 40.220" E
14	53° 5' 2.192" N	1° 14' 30.074" E	77	53° 32' 31.275" N	2° 4' 37.727" E
15	53° 4' 58.764" N	1° 14' 55.483" E	78	53° 31' 59.257" N	2° 4' 11.934" E
16	53° 4' 32.854" N	1° 16' 47.381" E	79	53° 31' 13.675" N	2° 3' 20.449" E
17	53° 4' 32.226" N	1° 19' 19.524" E	80	53° 30' 18.703" N	2° 2' 26.715" E
18	53° 4' 54.358" N	1° 22' 30.281" E	81	53° 30' 0.496" N	2° 1' 55.943" E
19	53° 5' 6.119" N	1° 25' 0.302" E	82	53° 29' 53.014" N	2° 1' 22.871" E
20	53° 5' 7.887" N	1° 26' 23.233" E	83	53° 29' 52.335" N	2° 0' 47.588" E
21	53° 5' 4.100" N	1° 27' 30.916" E	84	53° 28' 18.157" N	1° 53' 52.525" E
22	53° 5' 52.998" N	1° 28' 30.016" E	85	53° 27' 38.035" N	1° 51' 19.593" E
23	53° 14' 11.509" N	1° 41' 28.704" E	86	53° 27' 25.643" N	1° 50' 32.418" E
24	53° 14' 27.431" N	1° 42' 14.962" E	87	53° 27' 18.150" N	1° 50' 31.601" E
25	53° 15' 49.705" N	1° 44' 10.074" E	88	53° 26' 16.707" N	1° 50' 4.603" E
26	53° 16' 25.597" N	1° 44' 37.874" E	89	53° 25' 53.921" N	1° 50' 10.016" E
27	53° 19' 1.814" N	1° 45' 50.556" E	90	53° 25' 34.502" N	1° 50' 4.308" E
28	53° 22' 33.955" N	1° 46' 57.914" E	91	53° 24' 21.903" N	1° 49' 42.825" E
29	53° 22' 55.872" N	1° 46' 55.918" E	92	53° 24' 2.505" N	1° 49' 42.663" E
30	53° 23' 22.176" N	1° 47' 7.319" E	93	53° 23' 34.480" N	1° 49' 32.287" E
31	53° 23' 41.762" N	1° 47' 5.727" E	94	53° 23' 14.095" N	1° 49' 34.013" E
32	53° 24' 11.270" N	1° 47' 16.705" E	95	53° 22' 47.157" N	1° 49' 22.581" E
33	53° 24' 33.225" N	1° 47' 17.703" E	96	53° 22' 23.714" N	1° 49' 23.370" E
34	53° 25' 56.028" N	1° 47' 42.459" E	97	53° 18' 42.217" N	1° 48' 12.788" E
35	53° 26' 20.933" N	1° 47' 36.143" E	98	53° 15' 55.220" N	1° 46' 54.772" E
36	53° 26' 43.765" N	1° 47' 45.420" E	99	53° 15' 3.154" N	1° 46' 14.109" E
37	53° 27' 30.131" N	1° 48' 5.945" E	100	53° 13' 23.395" N	1° 43' 55.484" E
38	53° 27' 46.677" N	1° 48' 5.619" E	101	53° 13' 5.062" N	1° 43' 4.402" E
39	53° 28' 17.076" N	1° 48' 21.428" E	102	53° 4' 59.121" N	1° 30' 24.338" E
40	53° 28' 37.302" N	1° 49' 1.846" E	103	53° 4' 20.493" N	1° 29' 37.106" E
41	53° 29' 38.707" N	1° 52' 55.786" E	104	53° 4' 9.988" N	1° 29' 29.310" E
42	53° 31' 13.071" N	1° 59' 48.933" E	105	53° 3' 47.663" N	1° 28' 59.880" E
43	53° 31' 19.720" N	2° 0' 36.709" E	106	53° 3' 36.602" N	1° 28' 9.237" E
44	53° 32' 1.260" N	2° 1' 17.462" E	107	53° 3' 36.599" N	1° 27' 27.833" E
45	53° 32' 51.864" N	2° 2' 12.822" E	108	53° 3' 40.623" N	1° 26' 14.722" E
46	53° 34' 50.465" N	2° 1' 45.585" E	109	53° 3' 39.011" N	1° 25' 12.221" E
47	53° 35' 23.664" N	2° 1' 56.535" E	110	53° 3' 28.120" N	1° 22' 53.680" E
48	53° 35' 46.884" N	2° 2' 37.417" E	111	53° 3' 4.980" N	1° 19' 32.112" E
49	53° 36' 32.251" N	2° 2' 43.845" E	112	53° 3' 6.278" N	1° 16' 22.646" E
50	53° 37' 0.888" N	2° 2' 53.784" E	113	53° 3' 34.066" N	1° 14' 17.070" E
51	53° 37' 20.916" N	2° 3' 21.412" E	114	53° 3' 23.126" N	1° 12' 23.483" E
52	53° 38' 20.262" N	2° 5' 30.569" E	115	53° 3' 19.662" N	1° 10' 8.762" E

53	53° 38' 31.038" N	2° 6' 19.862" E	116	53° 3' 30.020" N	1° 8' 33.828" E
54	53° 41' 39.572" N	2° 16' 17.662" E	117	53° 3' 32.792" N	1° 7' 6.899" E
55	53° 44' 4.728" N	2° 20' 18.541" E	118	53° 1' 51.145" N	1° 5' 45.682" E
56	53° 51' 54.307" N	2° 19' 24.004" E	119	53° 0' 17.303" N	1° 5' 29.793" E
57	53° 52' 12.798" N	2° 19' 38.938" E	120	52° 59' 10.951" N	1° 6' 24.006" E
58	53° 59' 22.420" N	2° 11' 50.694" E	121	52° 58' 23.000" N	1° 7' 34.209" E
59	53° 59' 19.280" N	2° 13' 34.691" E	122	52° 57' 44.291" N	1° 7' 45.470" E
60	53° 58' 42.514" N	2° 32' 43.904" E	123	52° 57' 19.850" N	1° 7' 56.688" E
61	54° 0' 4.028" N	2° 40' 52.651" E	124	52° 56' 59.623" N	1° 8' 4.381" E
62	53° 48' 57.136" N	2° 44' 53.902" E	125	52° 57' 2.633" N	1° 7' 44.016" E
63	53° 41' 22.175" N	2° 47' 35.927" E	126	52° 57' 4.058" N	1° 7' 42.464" E

6. This licence remains in force until the authorised project has been decommissioned in accordance with a programme approved by the Secretary of State under section 106 (approval of decommissioning programmes) of the 2004 Act, including any modification to the programme under section 108, and the completion of such programme has been confirmed by the Secretary of State in writing.

7. The provisions of section 72 (variation, suspension, revocation and transfer) of the 2009 Act apply to this licence except that the provisions of sections 72(7) and (8) relating to the transfer of the licence only apply to a transfer not falling within article 5 (benefit of the Order).

8. With respect to any condition which requires the licensed activities be carried out in accordance with the plans, protocols or statements approved under this Schedule, the approved details, plan or project are taken to include any amendments that may subsequently be approved in writing by the MMO.

9. Any amendments to or variations from the approved plans, protocols or statements must be in accordance with the principles and assessments set out in the environmental statement. Such agreement may only be given in relation to immaterial changes where it has been demonstrated to the satisfaction of the MMO that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

PART 2 CONDITIONS

Design parameters

1.—(1) The total number of offshore electrical installations shall not exceed 18, and shall consist of no more than—

- (a) 12 offshore type 1 substations;
- (b) four offshore type 2 substations;
- (c) four offshore HVAC booster stations; and
- (d) six offshore subsea HVAC booster stations.

2.—(1) The dimensions of any offshore type 1 substations forming part of the authorised project must not exceed—

- (a) 90 metres in height when measured from LAT;
- (b) 100 metres in length; and
- (c) 100 metres in width.

(2) The dimensions of any offshore type 2 substations forming part of the authorised project must not exceed—

- (a) 110 metres in height when measured from LAT;
 - (b) 180 metres in length; and
 - (c) 90 metres in width.
- (3) The dimensions of any offshore HVAC booster station forming part of the authorised project must not exceed—
- (a) 90 metres in height when measured from LAT;
 - (b) 100 metres in length; and
 - (c) 100 metres in width.
- (4) The dimensions of any offshore subsea HVAC booster station forming part of the authorised project must not exceed—
- (a) 15 metres in height when measured from the seabed;
 - (b) 50 metres in length; and
 - (c) 50 metres in width.
- (5) Any bridge located on an offshore electrical installation shall be no longer than 100 metres.
- (6) Offshore electrical installation foundation structures forming part of the authorised scheme must be one of the following foundation options—
- (a) for offshore type 1 substations, offshore HVAC booster stations and offshore subsea HVAC booster stations either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations or box-type gravity base foundations; and
 - (b) for offshore type 2 substations, either monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, jacket foundations, box-type gravity base foundations, pontoon gravity base 1 foundations, or pontoon gravity base 2 foundations.
- (7) No offshore electrical installation—
- (a) jacket foundation employing pin piles forming part of the authorised project shall have a pin pile diameter of greater than 4 metres; and
 - (b) monopile foundation forming part of the authorised project shall have a diameter greater than 15 metres.
- (8) The total seabed footprint area for offshore electrical installation foundations must not exceed—
- (a) 138,900 square metres excluding scour protection; and
 - (b) 267,900 square metres including scour protection.
- (9) The volume of scour protection material for offshore electrical installation foundations must not exceed 291,200 cubic metres.
- (10) The total number of cable crossings when combined with the deemed marine licence granted under Schedule 11 of the Order must not exceed 44, unless otherwise agreed between the undertaker and the MMO.
- (11) No works permitted under this licence may be undertaken within the boundaries of Markham’s Triangle MCZ exclusion zone.—

3.—(1) The total length of the cables and the volume of their cable protection (excluding cable crossings) must not exceed the following—

<i>Work</i>	<i>Length</i>	<i>Cable protection</i>
Work Nos. 2 and 3	1,371 kilometres	1,371,000 cubic metres
Work No. 5	3 kilometres	None

- (2) No cable protection by way of concrete mattresses may be used in European Sites or MCZ.

(3) No more than 6% of the length of the cables in Work Nos. 2, 3 and 5 falling within any European Site shall be subject to cable protection.

(4) No more than 7% of the length of the cables in Works Nos. 2, 3 and 5 falling within any MCZ shall be subject to cable protection.

4.—(1) The total length of the cables in Work No.2(c) and the volume of their cable protection when combined with the cable authorised under Work No.1(c) of the deemed marine licence granted under Schedule 11 of the Order must not exceed the following—

<i>Length</i>	<i>Cable protection</i>
1,055 kilometres	1,055,000 cubic metres

(2) Any cable protection authorised under this licence must be deployed within 15 years from the date of the grant of the Order unless otherwise agreed by the MMO.

Phases of authorised development

5.—(1) The authorised development may not be commenced until a written scheme setting out the phases of construction of the authorised project has been submitted to and approved by the MMO.

(2) The phases of construction referred to in paragraph (1) shall not exceed two, save that each phase may be undertaken in any number of stages as prescribed in the written scheme.

(3) The scheme must be implemented as approved.

Maintenance of the authorised development

6.—(1) The undertaker may at any time maintain the authorised development, except to the extent that this licence or an agreement made under this licence provides otherwise.

(2) No maintenance works whose likely effects are not assessed in the environmental statement may be carried out, unless otherwise approved by the MMO.

(3) Maintenance works include but are not limited to—

- (a) offshore electrical installation component replacement;
- (b) offshore electrical installation painting;
- (c) removal of organic build-up;
- (d) cable remedial burial;
- (e) cable repairs;
- (f) replacement of offshore electrical installation anodes; and
- (g) J-tube repair/replacement.

(4) Where the MMO's approval is required under paragraph (2), such approval may be given only where it has been demonstrated to the satisfaction of the MMO that the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.

(5) The undertaker shall issue to operators of vessels under its control operating within the Order limits a code of conduct to prevent collision risk or injury to marine mammals.

(6) The undertaker shall ensure appropriate co-ordination of vessels within its control operating within the Order limits so as to reduce collision risk to other vessels including advisory safe passing distances for vessels.

Extension of time periods

7. Any time period given in this licence given to either the undertaker or the MMO may be extended with the agreement of the other party.

Notifications and inspections

- 8.—(1) The undertaker must ensure that—
- (a) a copy of this licence (issued as part of the grant of the Order) and any subsequent amendments or revisions to it is provided to—
 - (i) all agents and contractors notified to the MMO in accordance with condition 17; and
 - (ii) the masters and transport managers responsible for the vessels notified to the MMO in accordance with condition 17; and
 - (b) within 28 days of receipt of a copy of this licence those persons referred to in paragraph (a) above must provide a completed confirmation form to the MMO confirming receipt of this licence.
- (2) Only those persons and vessels notified to the MMO in accordance with condition 17 are permitted to carry out the licensed activities.
- (3) Copies of this licence must also be available for inspection at the following locations—
- (a) the undertaker's registered address;
 - (b) any site office located at or adjacent to the construction site and used by the undertaker or its agents and contractors responsible for the loading, transportation or deposit of the authorised deposits; and
 - (c) on board each vessel or at the office of any transport manager with responsibility for vessels from which authorised deposits or removals are to be made.
- (4) The documents referred to in sub-paragraph (1)(a) must be available for inspection by an authorised enforcement officer at the locations set out in sub-paragraph (3)(b) above.
- (5) The undertaker must provide access, and if necessary appropriate transportation, to the offshore construction site or any other associated works or vessels to facilitate any inspection that the MMO considers necessary to inspect the works during construction and operation of the authorised project.
- (6) The undertaker must inform the MMO Coastal Office in writing at least five days prior to the commencement of the licensed activities or any part of them and within five days of the completion of the licenced activity.
- (7) The undertaker must inform the Kingfisher Information Service of Seafish by email to kingfisher@seafish.co.uk of details regarding the vessel routes, timings and locations relating to the construction of the authorised project or relevant part—
- (a) at least fourteen days prior to the commencement of offshore activities, for inclusion in the Kingfisher Fortnightly Bulletin and offshore hazard awareness data; and
 - (b) on completion of construction of all offshore activities,
- and confirmation of notification must be provided to the MMO within five days.
- (8) A notice to mariners must be issued at least ten days prior to the commencement of the licensed activities or any part of them advising of the start date of Work Nos 2, 3, 4 and 5 and the expected vessel routes from the construction ports to the relevant location. Copies of all notices must be provided to the MMO and UKHO within five days.
- (9) The notices to mariners must be updated and reissued at weekly intervals during construction activities and at least five days before any planned operations and maintenance works and supplemented with VHF radio broadcasts agreed with the MCA in accordance with the construction programme approved under condition 14(1)(b). Copies of all notices must be provided to the MMO and UKHO within five days.
- (10) The undertaker must notify the UK Hydrographic Office both of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO.
- (11) In case of damage to, or destruction or decay of, the authorised project seaward of MHWS or any part thereof including the exposure of cables the undertaker must as soon as possible and no

later than 24 hours following the undertaker becoming aware of any such damage, destruction or decay, notify the MMO, MCA, Trinity House, the Kingfisher Information Service of Seafish and the UK Hydrographic Office. In case of the development of a cable exposure deemed by the undertaker to present a risk to fishing activity, the undertaker must notify the MMO and the Kingfisher Information Service within three working days following the undertaker becoming aware of it.

Aids to navigation

9.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning of the authorised project seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.

(2) The undertaker must during the period from the start of construction of the authorised project to completion of decommissioning of the authorised project seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised project seaward of MHWS including the following—

- (a) notice of commencement of construction of the authorised project within 24 hours of commencement having occurred;
- (b) notice within 24 hours of any aids to navigation being established by the undertaker; and
- (c) notice within five days of completion of construction of the authorised project.

(3) The undertaker must provide reports to Trinity House on the availability of aids to navigation in accordance with the frequencies set out in the aids to navigation management plan agreed pursuant to condition 14(1)(j) using the reporting system provided by Trinity House.

(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning of the authorised project seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.

(5) In the event that the provisions of condition 8(11) are invoked, the undertaker must lay down such buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.

10. The undertaker must colour all structures yellow (colour code RAL 1023) from at least highest astronomical tide to a height directed by Trinity House, or must colour the structure as directed by Trinity House from time to time.

Aviation safety

11.—(1) The undertaker must exhibit such lights, with such shape, colour and character as are required in writing by Air Navigation Order 2016^(a) and determined necessary for aviation safety in consultation with the Defence Infrastructure Organisation Safeguarding and as directed by the Civil Aviation Authority

(2) The undertaker must notify the Defence Infrastructure Organisation Safeguarding, at least 14 days prior to the commencement of the authorised project, in writing of the following information—

- (a) the date of the commencement of construction of the authorised project;
- (b) the date any offshore electrical installations are brought into use;
- (c) the maximum height of any construction equipment to be used;
- (d) the maximum heights of any offshore electrical installations to be constructed; and

(a) S.I. 2016/765.

(e) the latitude and longitude of each offshore electrical installations to be constructed, and the Defence Infrastructure Organisation Safeguarding must be notified of any changes to the information supplied under this paragraph and of the completion of the construction of the authorised project. Copies of notifications must be provided to the MMO.

Chemicals, drilling and debris

12.—(1) Unless otherwise agreed in writing by the MMO all chemicals used in the construction of the authorised project must be selected from the List of Notified Chemicals approved for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002(a) (as amended).

(2) The undertaker must ensure that any coatings or treatments are suitable for use in the marine environment and are used in accordance with guidelines approved by Health and Safety Executive and the Environment Agency Pollution Prevention Control Guidelines.

(3) The storage, handling, transport and use of fuels, lubricants, chemicals and other substances must be undertaken so as to prevent releases into the marine environment, including bunding of 110% of the total volume of all reservoirs and containers.

(4) The undertaker must inform the MMO of the location and quantities of material disposed of each month under the Order, by submission of a disposal return by 31 January each year for the months August to January inclusive, and by 31 July each year for the months February to July inclusive.

(5) The undertaker must ensure that only inert material of natural origin, produced during the drilling installation of or seabed preparation for foundations, and drilling mud is disposed of within the Order limits seaward of MHWS.

(6) The undertaker must ensure that any rock material used in the construction of the authorised project is from a recognised source, free from contaminants and containing minimal fines.

(7) In the event that any rock material used in the construction of the authorised project is misplaced or lost below MHWS, the undertaker must report the loss to the District Marine Office within 48 hours and if the MMO reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material) the undertaker must endeavour to locate the material and recover it.

(8) The undertaker must ensure that no waste concrete slurry or wash water from concrete or cement works are discharged into the marine environment. Concrete and cement mixing and washing areas should be contained to prevent run off entering the water through the freeing ports.

(9) The undertaker must ensure that any oil, fuel or chemical spill within the marine environment is reported to the MMO, Marine Pollution Response Team in accordance with the marine pollution contingency plan agreed under condition 14(1)(d)(i).

(10) All dropped objects must be reported to the MMO using the Dropped Object Procedure Form as soon as reasonably practicable and in any event within 24 hours of the undertaker becoming aware of an incident. On receipt of the Dropped Object Procedure Form, the MMO may require relevant surveys to be carried out by the undertaker (such as side scan sonar) if reasonable to do so and the MMO may require obstructions to be removed from the seabed at the undertaker's expense if reasonable to do so.

Force majeure

13.—(1) If, due to stress of weather or any other cause the master of a vessel determines that it is necessary to deposit the authorised deposits within or outside of the Order limits because the safety of human life or of the vessel is threatened, within 48 hours full details of the circumstances of the deposit must be notified to the MMO.

(2) The unauthorised deposits must be removed at the expense of the undertaker unless written approval is obtained from the MMO.

(a) S.I. 2002/1355.

Pre-construction plans and documentation

14.—(1) The licensed activities or any phase of those activities must not commence until the following (as relevant to that phase) have been submitted to and approved in writing by the MMO in consultation with Trinity House and the MCA—

- (a) a design plan at a scale of between 1:25,000 and 1:50,000, including detailed representation on the most suitably scaled admiralty chart, to be agreed in writing with the MMO which shows, in accordance with the Development Principles—
 - (i) the proposed location, including grid co-ordinates of the centre point of the proposed location for each offshore electrical installation, subject to any micro-siting required due to anthropological constraints, environmental constraints or difficult ground conditions and choice of foundation of all offshore electrical installations;
 - (ii) the height, length and width of all offshore electrical installations;
 - (iii) the length and arrangement of all cables comprised in Work Nos. 2, 3, and 5;
 - (iv) the dimensions of all monopile foundations, mono suction bucket foundations, jacket foundations, gravity base foundations, box-type gravity base foundations, pontoon gravity base 1 foundations and pontoon gravity base 2 foundations;
 - (v) the proposed layout of all offshore electrical installations including any exclusion zones identified under sub-paragraph 14(2)(d); and
 - (vi) any exclusion zones or micrositing requirements identified in any mitigation scheme pursuant to sub-paragraph 14(2)(d) or relating to any Annex I reefs identified as part of surveys undertaken in accordance with condition 18,
to ensure conformity with the description of Work Nos. 2, 3, 4 and 5 and compliance with conditions 1 to 3 above;
- (b) a construction programme to include details of—
 - (i) the proposed construction start date;
 - (ii) proposed timings for mobilisation of plant delivery of materials and installation works; and
 - (iii) an indicative written construction programme for all offshore electrical installations and electrical circuits comprised in the works at paragraph 2(f) of Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above);
unless otherwise agreed in writing with the MMO;
- (c) a construction method statement in accordance with the construction methods assessed in the environmental statement and including details of—
 - (i) foundation installation methodology, including drilling methods and disposal of drill arisings and material extracted during seabed preparation for foundation works and having regard to any mitigation scheme pursuant to sub-paragraph 14(1)(f);
 - (ii) advisory safe passing distances for vessels around construction sites;
 - (iii) cable installation;
 - (iv) contractors;
 - (v) vessels and vessels transit corridors;
 - (vi) codes of conduct for vessel operators;
 - (vii) associated ancillary works;
 - (viii) guard vessels to be employed; and
 - (ix) details of means to avoid impacts on European sites;
- (d) a project management plan and monitoring plan covering the period of construction and operation to include details of—

- (i) a marine pollution contingency plan to address the risks, methods and procedures to deal with any spills and collision incidents of the authorised project in relation to all activities carried out;
 - (ii) a chemical risk assessment to include information regarding how and when chemicals are to be used, stored and transported in accordance with recognised best practice guidance;
 - (iii) a biosecurity plan detailing how the risk of introduction and spread of invasive non-native species will be minimised;
 - (iv) waste management and disposal arrangements;
 - (v) a code of conduct for vessel operators;
 - (vi) the appointment and responsibilities of a fisheries liaison officer; and
 - (vii) all spatial data for archaeological exclusion zones and application of a protocol for archaeological discoveries;
- (e) a scour protection management plan providing details of the need, type, sources, quantity and installation methods for scour protection, which plan must be updated and resubmitted for approval if changes to it are proposed following cable laying operations;
- (f) proposed pre-construction surveys, construction monitoring, post-construction monitoring and related reporting in accordance with conditions 18, 19 and 20;
- (g) in the event that driven or part-driven pile foundations are proposed to be used, a marine mammal mitigation protocol, the intention of which is to prevent injury to marine mammals, including details of soft start procedures with specified duration periods following current best practice as advised by the relevant statutory nature conservation bodies;
- (h) a cable specification and installation plan, to include—
- (i) technical specification of offshore cables below MHWS, including a desk-based assessment of attenuation of electro-magnetic field strengths, shielding and cable burial depth in accordance with industry good practice;
 - (ii) a sandwave clearance plan for all designated sites affected, including details of the volumes of material to be dredged, timing of works, locations for disposal and monitoring proposals;
 - (iii) a detailed cable laying plan for the Order limits, incorporating a burial risk assessment encompassing the identification of any cable protection that exceeds 5% of navigable depth referenced to Chart Datum and, in the event that any area of cable protection exceeding 5% of navigable depth is identified, details of any steps (to be determined following consultation with the MCA and Trinity House) to be taken to ensure existing and future safe navigation is not compromised or similar such assessment to ascertain suitable burial depths and cable laying techniques, including cable protection;
 - (iv) a cable protection plan for all designated sites where cable protection is required, including details of the volumes, material, locations and seabed footprints for cable protection measures, where required, consideration of alternative methods of protection and monitoring proposals and provision for review and update of the plan for a period of 15 years from the date of the grant of the Order;
 - (v) proposals for the volume and areas of cable protection to be used for each cable crossing; and
 - (vi) proposals for monitoring offshore cables including cable protection during the operational lifetime of the authorised project which includes a risk based approach to the management of unburied or shallow buried cables, and, where necessary, details of micrositing through any European Site;
- (i) an offshore operations and maintenance plan, to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase; and

- (j) an aid to navigation management plan to be agreed in writing by the MMO following consultation with Trinity House, to include details of how the undertaker will comply with the provisions of condition 8 for the lifetime of the authorised project.

(2) The licensed activities or any part of those activities must not commence unless no later than six months prior to the commencement a written scheme of archaeological investigation has been submitted to and approved by the MMO, in accordance with the outline offshore written scheme of investigation, and in accordance with industry good practice, in consultation with the statutory historic body to include—

- (a) details of responsibilities of the undertaker, archaeological consultant and contractor;
- (b) a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;
- (c) archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within six months of any survey being completed;
- (d) delivery of any mitigation including, where necessary, identification and modification of archaeological exclusion zones prior to construction;
- (e) monitoring of archaeological exclusion zones during and post construction;
- (f) a requirement for the undertaker to ensure that a copy of any agreed archaeological report is deposited with the National Record of the Historic Environment, by submitting a Historic England OASIS ('Online Access to the Index of archaeological investigations') form with a digital copy of the report within six months of completion of construction of the authorised project, and to notify the MMO (and North Norfolk District Council where the report relates to the intertidal area) that the OASIS form has been submitted to the National Record of the Historic Environment within two weeks of submission;
- (g) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised project;
- (h) implementation of the Offshore Renewables Protocol for Reporting Archaeological Discoveries as set out by The Crown Estate; and
- (i) a timetable for all further site investigations, which must allow sufficient opportunity to establish a full understanding of the historic environment within the offshore Order limits and the approval of any necessary mitigation required as a result of the further site investigations prior to commencement of licensed activities.

(3) Pre-construction archaeological investigations and pre-commencement material operations which involve intrusive seabed works must only take place in accordance with a specific outline written scheme of investigation (which must accord with the details set out in the outline offshore written scheme of investigation) which has been submitted to and approved by the MMO.

(4) The licensed activities or any part of those activities must not commence until a fisheries coexistence and liaison plan in accordance with the outline fisheries coexistence and liaison plan has been submitted to and approved by the MMO.

(5) In the event that driven or part-driven pile foundations are proposed to be used, the licensed activities, or any phase of those activities must not commence until a site integrity plan which accords with the principles set out in the in principle Hornsea Three Southern North Sea Special Area of Conservation Site Integrity Plan has been submitted to the MMO and the MMO is satisfied that the plan provides such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.

(6) In the event that driven or part-driven pile foundations are proposed to be used, the hammer energy used to drive or part-drive the pile foundations must not exceed 5,000kJ.

15.—(1) Each programme, statement, plan, protocol or scheme required to be approved under condition 14 (save for that required under condition 14(1)(f)) must be submitted for approval at least four months prior to the intended commencement of licensed activities, except where otherwise stated or unless otherwise agreed in writing by the MMO.

(2) The pre-construction monitoring surveys, construction monitoring, post-construction monitoring and related reporting required under condition 14(1)(f) must be submitted in accordance with the following, unless otherwise agreed in writing with the MMO—

- (a) at least four months prior to the first survey, detail of any pre-construction surveys and an outline of all proposed monitoring;
- (b) at least four months prior to construction, detail on construction monitoring; and
- (c) at least four months prior to commissioning, detail of post-construction (and operational) monitoring.

(3) The design plan required by condition 14(1)(a) shall be prepared by the undertaker and determined by the MMO in accordance with the Development Principles.

(4) The MMO shall determine an application for consent made under this article within a period of four months commencing on the date the application is received by the MMO, unless otherwise agreed in writing with the undertaker.

(5) The licensed activities must be carried out in accordance with the approved plans, protocols, statements, schemes and details approved under condition 14, unless otherwise agreed in writing by the MMO.

Offshore safety management

16. No part of the authorised project may commence until the MMO, in consultation with the MCA, has given written approval of an Emergency Response Co-operation Plan (ERCoP) which includes full details of the plan for emergency response and co-operation for the construction, operation and decommissioning phases of that part of the authorised project in accordance with the MCA recommendations contained within MGN543 “Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response Issues” (or any equivalent guidance that replaces or supersedes it), and has confirmed in writing that the undertaker has taken into account and, so far as is applicable to that part of the authorised project, adequately addressed all MCA recommendations contained within MGN543 and its annexes.

Reporting of engaged agents, contractors and vessels

17.—(1) The undertaker must provide the following information to the MMO—

- (a) the name and function of any agent or contractor appointed to engage in the licensed activities within seven days of appointment; and
- (b) each week during the construction of the authorised project a completed Hydrographic Note H102 listing the vessels currently and to be used in relation to the licensed activities.

(2) Any changes to the supplied details must be notified to the MMO in writing prior to the agent, contractor or vessel engaging in the licensed activities.

Pre-construction monitoring and surveys

18.—(1) The undertaker must submit in discharging condition 14(1)(f) submit a monitoring plan or plans in accordance with an in-principle monitoring plan for written approval by the MMO in consultation with the relevant statutory bodies, which shall contain details of proposed surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report, and;

- (a) the survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey’s objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position or will enable the validation or otherwise of key predictions in the environmental statement; and
- (b) the baseline report proposals must ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the

preconstruction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this Condition the pre-construction surveys must comprise, in outline—

- (a) a high-resolution swath bathymetric survey to include a 100% coverage and a side-scan sonar survey of the parts of the offshore Order limits within which it is proposed to carry out construction works and disposal activities under this licence to—
 - (i) provide a baseline of the seabed environment and bathymetric conditions against which specific post construction marine process monitoring can be undertaken, as set out within the in-principle monitoring plan;
 - (ii) determine the location, extent and composition of any biogenic or geogenic reef features, as set out within the in-principle monitoring plan;
 - (iii) inform future navigation risk assessments as part of the cable specification and installation plan;
 - (iv) inform the identification of any archaeological exclusion zone and post consent monitoring of any such archaeological exclusion zone; and
 - (v) identify and characterise any preferred sandeel habitat; and
- (b) a survey (in the parts of the offshore Order limits in which it is proposed to carry out construction works under this licence) to provide a baseline of the benthic environment within designated sites against which specific post construction benthic monitoring can be undertaken, as set out within the in-principle monitoring plan.

(3) Any monitoring report compiled in accordance with the monitoring plans provided under this condition must be provided to the MMO no later than four months following completion of the monitoring to which it relates.

Construction monitoring

19.—(1) The undertaker must in discharging condition 14(1)(f) submit a construction monitoring plan or plans for written approval by the MMO in consultation with the relevant statutory nature conservation body, which shall include details of any proposed construction monitoring, including methodologies and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt from the undertaker of specific proposals pursuant to this condition the construction monitoring plan must include in outline details of vessel traffic monitoring by automatic identification system for the duration of the construction period including obligations to report annually to the MMO, Trinity House and the MCA during the construction phase of the authorised development.

(3) The undertaker must carry out the surveys specified within the construction monitoring plan or plans in accordance with that plan or plans unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Post-construction monitoring

20.—(1) The undertaker must in discharging condition 14(1)(f) submit a post-construction monitoring plan or plans for written approval by the MMO in consultation with the relevant statutory nature conservation body including details of proposed post-construction surveys, including methodologies (including appropriate buffers, where relevant) and timings, and a proposed format, content and timings for providing reports on the results. The survey proposals must be in general accordance with the principles set out in the in-principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful

and valid comparison with the preconstruction position and/or will enable the validation or otherwise of key predictions in the environmental statement.

(2) Subject to receipt of specific proposals the post-construction survey plan or plans must include, in outline—

- (a) details of a high-resolution swath bathymetric survey to be undertaken no sooner than 6 months following completion of construction works and disposal activities were carried out under this licence to assess recovery of sandwave features within any designated site, and any changes bathymetric profile in designated sites following application of cable protection material. The need for further surveys must be agreed in writing with the MMO following submission of the first year of survey data;
- (b) details of a survey to determine any change in the location, extent and composition of any biogenic or geogenic reef feature identified in the pre-construction survey in the parts of the offshore Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey;
- (c) details of a survey to determine the recovery of any benthic features of ecological importance within designated sites, following cable burial and excavation of HDD exit pits, and to assess degree colonisation of cable protection material as detailed within the in-principle monitoring plan. The survey design must be informed by the results of the pre-construction benthic survey. The need for further surveys must be agreed in writing with the MMO following submission of the first year of survey data;
- (d) details of vessel traffic monitoring by automatic identification system, for a period of 28 individual days taking account seasonal variations in traffic patterns over the course of one year to be submitted to the MMO, Trinity House and the MCA no later than one year following completion of the construction phase of the authorised development;
- (e) details of a full sea floor coverage swath-bathymetry survey of the areas within which construction activity has taken place in order to inform of any dropped objects or residual navigational risk to be submitted to the MMO and MCA;
- (f) a bathymetric survey to monitor the effectiveness of archaeological exclusion zones identified to have been potentially impacted by construction works. The data shall be analysed by an accredited archaeologist as defined in the offshore written scheme of investigation required under condition 14(2);
- (g) a high resolution swath-bathymetric and side scan sonar survey to determine any change in the composition of any preferred sandeel habitat identified in the pre-construction survey in the parts of the offshore Order limits in which sandwave clearance activity has been carried out. The survey design must be informed by the results of the pre-construction benthic survey; and
- (h) a swath bathymetric survey to IHO Order 1a of the installed export cable route and provision of the data and survey report(s) to the MMO, MCA and UKHO.

(3) The undertaker must carry out the surveys specified within the post-construction monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.

Timing of monitoring report

21. Any monitoring report compiled in accordance with the monitoring plans provided under conditions 18, 19 and 20 must be provided to the MMO no later than four months following completion of the monitoring to which it relates, unless otherwise agreed with the MMO.

Reporting of impact pile driving

22.—(1) Only when driven or part-driven pile foundations or detonation of explosives are proposed to be used as part of the foundation installation the undertaker must provide the following information to the Marine Noise Registry—

- (a) prior to the commencement of the licenced activities, information on the expected location, start and end dates of impact pile driving/detonation of explosives to satisfy the Marine Noise Registry’s Forward Look requirements;
 - (b) at 6 month intervals following the commencement of pile driving or detonation of explosives, information on the locations and dates of impact pile driving or detonation of explosives to satisfy the Marine Noise Registry’s Close Out requirements;
 - (c) within 12 weeks of completion of impact pile driving or detonation of explosives, information on the locations and dates of impact pile driving or detonation of explosives to satisfy the Marine Noise Registry’s Close Out requirements.
- (2) The undertaker must notify the MMO of the successful submission of Forward Look or Close Out data pursuant to paragraph (1) above within 7 days of the submission.
- (3) For the purpose of this condition—
- (a) “Marine Noise Registry” means the database developed and maintained by JNCC on behalf of Defra to record the spatial and temporal distribution of impulsive noise generating activities in UK seas; and
 - (b) “Forward Look” and “Close Out” requirements are as set out in the UK Marine Noise Registry Information.

Reporting of cable protection

23.—(1) Not more than 4 months following completion of the construction phase of the project, the undertaker shall provide the MMO and the relevant SNCBs with a report setting out details of the cable protection used for the authorised scheme.

- (2) The report shall include the following information—
- (a) location of the cable protection;
 - (b) volume of cable protection; and
 - (c) any other information relating to the cable protection as agreed between the MMO and the undertaker.

Decommissioning of cable protection within marine protected areas

24.—(1) The obligations under paragraphs (2) and (3) shall only apply if and to the extent that—

- (a) cable protection is installed as part of the authorised project within an area designated as a European Site or MCZ as at the date of the grant of the Order; and
- (b) it is a requirement of the written decommissioning programme approved by the Secretary of State pursuant to sections 105 of the 2004 Act, including any modification to the programme under section 108, that such cable protection is removed as part of the decommissioning of the authorised project.

(2) Within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the undertaker shall carry out an appropriate survey of cables within Work Nos. 2(c), 2(d), 3(c) and 3(d) that are subject to cable protection and that are situated within any European Site or MCZ to assess the integrity and condition of that cable protection and determine the appropriate extent of the feasibility of the removal of such cable protection having regard to the condition of the cable protection and feasibility of any new removal techniques at that time, and submit that along with a method statement for recovery of cable protection to the MMO.

(3) Within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the MMO must confirm whether or not it is satisfied with the method statement pursuant to (2) above.

(4) If the MMO has confirmed it is satisfied pursuant to (3) above, then within such timeframe as specified within the decommissioning programme approved by the Secretary of State, the undertaker shall endeavour to recover the cable protection to the extent identified in the survey

and according to the methodology set out in the method statement submitted pursuant to (2) above.

SCHEDULE 13

Article 37

ARBITRATION RULES

Primary objective

1.—(1) The primary objective of these Arbitration Rules is to achieve a fair, impartial, final and binding award on the substantive difference between the parties (save as to costs) within 4 months from the date the Arbitrator is appointed pursuant to article 37 (arbitration) of the Order.

(2) The Parties will first use their reasonable endeavours to settle a dispute amicably through negotiations undertaken in good faith by the senior management of the Parties. Any dispute which is not resolved amicably by the senior management of the Parties within twenty business days of the dispute arising, or such longer period as agreed in writing by the Parties, shall be subject to arbitration in accordance with the terms of this Schedule.

(3) The Arbitration shall be deemed to have commenced when a party (“the Claimant”) serves a written notice of arbitration on the other party (“the Respondent”).

Time periods

2.—(1) All time periods in these Arbitration Rules will be measured in business days and this will exclude weekends, bank and public holidays.

(2) Time periods will be calculated from the day after the Arbitrator is appointed which shall be either—

- (a) the date the Arbitrator notifies the parties in writing of his/her acceptance of an appointment by agreement of the parties; or
- (b) the date the Arbitrator is appointed by the Secretary of State.

Timetable

3.—(1) The timetable for the arbitration will be that set out in sub-paragraphs (2) to (4) below unless amended in accordance with paragraph 5(3).

(2) Within 15 days of the Arbitrator being appointed, the Claimant shall provide both the Respondent and the Arbitrator with—

- (a) a written Statement of Claim which describes the nature of the difference between the parties, the legal and factual issues, the Claimant’s contentions as to those issues, and the remedy it is seeking; and
- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports.

(3) Within 15 days of receipt of the Claimant’s statements under sub-paragraph (2) by the Arbitrator and Respondent, the Respondent shall provide the Claimant and the Arbitrator with—

- (a) a written Statement of Defence responding to the Claimant’s Statement of Claim, its statement in respect of the nature of the difference, the legal and factual issues in the Claimant’s claim, its acceptance of any element(s) of the Claimant’s claim, its contentions as to those elements of the Claimant’s claim it does not accept;
- (b) all statements of evidence and copies of all documents on which it relies, including contractual documentation, correspondence (including electronic documents), legal precedents and expert witness reports; and
- (c) any objections it wishes to make to the Claimant’s statements, comments on the Claimant’s expert report(s) (if submitted by the Claimant) and explanations for the objections.

(4) Within 5 days of the Respondent serving its statements sub-paragraph (3), the Claimant may make a Statement of Reply by providing both the Respondent and the Arbitrator with—

- (a) a written statement responding to the Respondent's submissions, including its reply in respect of the nature of the difference, the issues (both factual and legal) and its contentions in relation to the issues;
- (b) all statements of evidence and copies of documents in response to the Respondent's submissions;
- (c) any expert report in response to the Respondent's submissions;
- (d) any objections to the statements of evidence, expert reports or other documents submitted by the Respondent; and
- (e) its written submissions in response to the legal and factual issues involved.

Procedure

4.—(1) The Arbitrator shall make an award on the substantive difference based solely on the written material submitted by the parties unless the Arbitrator decides that a hearing is necessary to explain or resolve any matters.

(2) Either party may, within 2 days of delivery of the last submission, request a hearing giving specific reasons why it considers a hearing is required.

(3) Within 5 days of receiving the last submission, the Arbitrator will notify the parties whether a hearing is to be held and the length of that hearing.

(4) Within 10 days of the Arbitrator advising the parties that he will hold a hearing, the date and venue for the hearing will be fixed by agreement with the parties, save that if there is no agreement the Arbitrator shall direct a date and venue which he considers is fair and reasonable in all the circumstances. The date for the hearing shall not be less than 35 days from the date of the Arbitrator's direction confirming the date and venue of the hearing.

(5) A decision will be made by the Arbitrator on whether there is any need for expert evidence to be submitted orally at the hearing. If oral expert evidence is required by the Arbitrator, then any expert(s) attending the hearing may be asked questions by the Arbitrator.

(6) There will be no process of examination and cross-examination of experts, but the Arbitrator shall invite the parties to ask questions of the experts by way of clarification of any answers given by the expert(s) in response to the Arbitrator's questions. Prior to the hearing the procedure for the expert(s) will be that—

- (a) at least 20 days before a hearing, the Arbitrator will provide a list of issues to be addressed by the expert(s);
- (b) if more than one expert is called, they will jointly confer and produce a joint report or reports within 10 days of the issues being provided; and
- (c) the form and content of a joint report shall be as directed by the Arbitrator and must be provided at least 5 days before the hearing.

(7) Within 10 days of a Hearing or a decision by the Arbitrator that no hearing is to be held the Parties may by way of exchange provide the Arbitrator with a final submission in connection with the matters in dispute and any submissions on costs. The Arbitrator shall take these submissions into account in the Award.

(8) The Arbitrator may make other directions or rulings as considered appropriate in order to ensure that the parties comply with the timetable and procedures to achieve an award on the substantive difference within 4 months of the date on which they are appointed, unless both parties otherwise agree to an extension to the date for the award.

(9) If a party fails to comply with the timetable, procedure or any other direction then the Arbitrator may continue in the absence of a party or submission or document, and may make a decision on the information before them attaching the appropriate weight to any evidence submitted beyond any timetable or in breach of any procedure and/or direction.

(10) The Arbitrator's award shall include reasons. The parties shall accept that the extent to which reasons are given shall be proportionate to the issues in dispute and the time available to the Arbitrator to deliver the award.

Arbitrator's powers

5.—(1) The Arbitrator has all the powers of the Arbitration Act 1996(a), including the non-mandatory sections, save where modified by these Rules.

(2) There shall be no discovery or disclosure, except that the Arbitrator shall have the power to order the parties to produce such documents as are reasonably requested by another party no later than the Statement of Reply, or by the Arbitrator, where the documents are manifestly relevant, specifically identified and the burden of production is not excessive. Any application and orders should be made by way of a Redfern Schedule without any hearing.

(3) Any time limits fixed in accordance with this procedure or by the Arbitrator may be varied by agreement between the parties, subject to any such variation being acceptable to and approved by the Arbitrator. In the absence of agreement, the Arbitrator may vary the timescales and/or procedure—

- (a) if the Arbitrator is satisfied that a variation of any fixed time limit is reasonably necessary to avoid a breach of the rules of natural justice and then;
- (b) only for such a period that is necessary to achieve fairness between the parties.

(4) On the date the award is made, the Arbitrator will notify the parties that the award is completed, signed and dated, and that it will be issued to the parties on receipt of cleared funds for the Arbitrator's fees and expenses.

Costs

6.—(1) The costs of the Arbitration shall include the fees and expenses of the Arbitrator, the reasonable fees and expenses of any experts and the reasonable legal and other costs incurred by the parties for the Arbitration.

(2) Subject to sub-paragraph (3), the Arbitrator will award recoverable costs on the general principle that each party should bear its own costs.

(3) The Arbitrator may depart from the general principle in sub-paragraph (2) and make such other costs award as it considers reasonable where a party has behaved unreasonably as defined within the National Planning Practice Guidance or such other guidance as may replace it.

Confidentiality

7.—(1) Subject to sub-paragraphs (2) and (3), any arbitration hearing and documentation shall be open to and accessible by the public.

(2) The Arbitrator may direct that the whole or part of a hearing is to be private or any documentation to be confidential where it is necessary in order to protect commercially sensitive information.

(3) Nothing in this paragraph shall prevent any disclosure of a document by a party pursuant to an order of a court in England and Wales or where disclosure is required under any enactment.

(a) 1996 c.23.

COMPENSATION MEASURES

PART 1

KITTIWAKE COMPENSATION MEASURES

1. In this Schedule:

“the FFC” means the site designated as the Flamborough and Filey Coast Special Protection Area; and

“the kittiwake compensation plan means the document certified as the kittiwake compensation plan by the Secretary of State for the purposes of this Order under article 36 (certification of plans and documents etc.).

2. The authorised development may not be commenced until a plan for the work of the Offshore Ornithology Engagement Group (“OOEG”) has been submitted to and approved by the Secretary of State. Such plan to include:

- (a) terms of Reference of the OOEG;
- (b) details of the membership of the OOEG;
- (c) details of the schedule of meetings, timetable for preparation of the kittiwake implementation and monitoring plan (the “KIMP”) and reporting and review periods; and
- (d) the dispute resolution mechanism.

3. The KIMP must be submitted to the Secretary of State for approval (in consultation with the MMO, the local planning authority or authorities for the land containing the artificial nest sites, and Natural England). The KIMP must be based on the strategy for kittiwake compensation set out in the kittiwake compensation plan and include:

- (a) details of locations where compensation measures will be deployed and details of landowner agreements demonstrating how the land will be bought or leased and assurances that the land management will deliver the ecology objectives of the KIMP;
- (b) details of designs of artificial nest sites including the number of nesting structures; and how risks from avian or mammalian predation and unauthorised human access will be mitigated;
- (c) an implementation timetable for delivery of the artificial nest structures that ensures all compensation measures are in place to allow four full kittiwake breeding seasons prior to the operation of any turbine forming part of the authorised development;
- (d) details of the proposed ongoing monitoring of the measures including: survey methods; survey programmes; success criteria; recording of OOEG consultations and project reviews; details of the factors used to trigger alternative compensation measures and/ or adaptive management measures; and annual reporting to the Secretary of State;
- (e) details of any adaptive management measures, to include the provision of additional nesting sites if capacity in one location is exceeded;
- (f) provision for annual reporting to the Secretary of State, to include details of the use of each site by breeding kittiwake to identify barriers to success and target the adaptive management measures. This would include the number of birds colonising the site; evidence of birds prospecting; nesting attempts; egg laying; hatching; and fledging.
- (g) details of how natal dispersal and colony interchange with the FFC kittiwake colony will be considered and proposals for assessing any evidence of additional productivity to the FFC;
- (h) details of the artificial nesting site maintenance schedule; and

- (i) details of the work within the exploration of prey availability measures as set out in Appendix 1 of the response from the undertaker to the Secretary of State's minded to approve letter dated 1 July 2020, that could support practical management measures to increase prey availability, and which should be undertaken alongside the artificial nest site installation.

4. The undertaker must implement the measures as set out in the KIMP approved by the Secretary of State and no operation of any turbine forming part of the authorised development may be commenced until four full breeding seasons following the implementation of the measures set out in the KIMP have elapsed. For the purposes of this paragraph each breeding season is assumed to have commenced on 1 March in each year and ended on 30 September.

5. The undertaker shall notify the Secretary of State of completion of implementation of the measures set out in the KIMP.

6. Once the measures have been implemented the undertaker shall provide an annual report to the Secretary of State on the progress of the measures as detailed in the KIMP.

7. The artificial nest structures must not be decommissioned without written approval of the Secretary of State. The artificial nest structures shall be maintained beyond the operational lifetime of the authorised development if they are colonised, and routine and adaptive management measures and monitoring must continue whilst the artificial nesting structures are in place.

8. The KIMP approved under this Schedule includes any amendments that may subsequently be approved in writing by the Secretary of State. Any amendments to or variations of the approved KIMP must be in accordance with the principles set out in the kittiwake compensation plan and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any materially new or materially different environmental effects from those considered in the kittiwake compensation plan.

PART 2

BENTHIC COMPENSATION MEASURES

Benthic compensation measures

9. In this part of the Schedule:

“the NNSSR” means the site designated as the North Norfolk Sandbanks and Saturn Reef Special Area of Conservation;

“the WNNC” means the site designated as the Wash and North Norfolk Coast Special Area of Conservation; and

“the sandbanks compensation strategy” means the document certified as the sandbanks compensation strategy by the Secretary of State for the purposes of this Order under article 36 (certification of plans and documents etc.).

10. The authorised development may not be commenced until a plan for the work of a Steering Group who will shape and inform the scope and delivery of Sandbanks Implementation Plans for the NNSSR and the WNNC (“the SIPs”) has been submitted to and approved by the Secretary of State. Such plan to include:

- (a) terms of reference of the Steering Group;
- (b) the membership of the Steering Group;
- (c) the schedule of meetings, timetable for preparation of the SIPs and reporting and review periods; and
- (d) the dispute resolution mechanism.

11. The Steering Group must be consulted on i) the proposed SIPs prior to the submission to the Secretary of State and ii) the decommissioning feasibility study and monitoring plans prior to the submission to the MMO and must be consulted further as required during the approval process for each. The undertaker will meet with and report to the Steering Group at least annually throughout the establishment and implementation phases of the Project and document the conclusions of the meetings.

12. A SIP for each of the NNSSR and the WNNC must be submitted to the Secretary of State for approval.

13. Each SIP must accord with the principles set out in the Sandbanks Compensation Strategy relating to the protected feature “sandbanks slightly covered by water all the time” and must include the following:

- (a) details of how all impacts to Annex 1 reef habitats within designated sites will be avoided;
- (b) details of the locations for the disposal of dredged material, and evidence that the disposal mechanism will allow sediment to be retained within the sandbank system and avoid impacts to other features, particularly reef habitats;
- (c) details of the areas which will be subject to marine debris removal, which should equate to no less than 41.80 ha at NNSSR and 2.77 ha at WNNC;
- (d) details of the marine debris awareness events, and measures to facilitate the rapid recovery of lost fishing gear, as detailed in the sandbanks compensation strategy. Such measures should be applied to both NNSSR and WNNC;
- (e) an environmental monitoring plan to include: appropriate surveys to assess the effects of cable protection on sediment movement and epifauna assemblages during the operation of the Project, to improve the evidence base for assessing the impacts of offshore windfarm cable installation and rock protection for future projects; and appropriate surveys to monitor the recovery of the areas of the NNSSR and the WNNC impacted by cable protection, post-decommissioning; and
- (f) Details of the timetable for implementation of each measure.

14. No cable installation works in Work No. 2(c) and (d), Work No. 3(c) and (d) and Work No. 5 may be commenced until a SIP for each of the NNSSR and the WNNC has been approved in writing by the Secretary of State. Before approving the SIPs the Secretary of State must consult the MMO and Natural England and, in relation to the SIP for the NNSSR, the JNCC.

15. No cable installation work in Work No, 2(c) and (d), Work No, 3(c) and (d) and Work No. 5 may be commenced until the KIMP for the FFC as described in Part 1 of this Schedule has been approved in writing by the Secretary of State.

16. The measures in the SIPs must be carried out in accordance with the timetable in the relevant SIP as approved by the Secretary of State. In particular no cable installation works in Work No. 2(c) and (d), Work No. 3(c) and (d) and Work No. 5 may be commenced unless the measures set out in paragraph 13(c) have been completed.

17. No later than four months prior to each deployment of cable protection, except where otherwise stated or unless otherwise agreed in writing by the MMO, the undertaker must submit the following documents for approval by the MMO:

- (a) A decommissioning feasibility study on the proposed cable protection to be updated at intervals of not more than every ten years throughout the operational phase of the project; and
- (b) A monitoring plan including appropriate surveys of cables situated within WNNC and NNSSR that are subject to cable protection to assess the integrity and condition of that cable protection and determine the appropriate extent of the feasibility of the removal of such cable protection having regard to the condition of the cable protection and feasibility of any new removal techniques at that time, along with a method statement for recovery of cable protection.

18. A SIP approved under this Schedule, includes any amendments that may subsequently be approved in writing by the Secretary of State. Any amendments to or variations of the approved SIP must be in accordance with the principles and assessments set out in the Sandbanks Compensation Strategy and may only be approved where it has been demonstrated to the satisfaction of the Secretary of State that it is unlikely to give rise to any materially new or materially different environmental effects from those assessed in those sandbank compensation strategy.

EXPLANATORY NOTE

(This note is not part of the Order)

This Order grants development consent for, and authorises the construction, operation and maintenance of an offshore wind farm in the North Sea approximately 121 kilometres to the northeast of the north Norfolk coast and approximately 10 kilometres west of the median line between UK and Netherlands waters together with associated development. This Order imposes requirements in connection with the development and authorises the compulsory purchase of land (including rights in land) and the right to use land and to override easements and other rights.

This Order also grants deemed marine licences under Part 4 of the Marine and Coastal Access Act 2009 in connection with the wind farms. The marine licences impose conditions in connection with the deposits and works for which they grant consent.

A copy of the plans and book of reference referred to in this Order and certified in accordance with article 36 (certification of plans and documents etc) together with a copy of any guarantee or alternative form of security approved by the Secretary of State pursuant to article 43, may be inspected free of charge at the offices of Orsted at 5 Howick Place, London SW1P 1WG.

Hornsea Project Three
Offshore Wind Farm



Hornsea Project Three Offshore Wind Farm

Environmental Statement:
Chapter 3: Project Description

PINS Document Reference: A6.1.3
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Date: May 2018

Hornsea 3
Offshore Wind Farm

Orsted

Environmental Impact Assessment

Environmental Statement

Volume 1

Chapter 3 – Project Description

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This report is also downloadable from the Hornsea Project Three offshore wind farm website at:

www.hornseaproject3.co.uk

Ørsted

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Front cover picture: Kite surfer near a UK offshore wind farm © Orsted Hornsea Project Three (UK) Ltd., 2018.

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Glossary

Term	Definition
Arisings	The soil that is displaced, or raised, from drilling to install foundations for offshore structures. For the purposes of this document, this soil is then considered spoil.
Array Cables (inter-array cables)	Cables which connect the wind turbines to each other and to the offshore substation(s).
Cable Circuit	A circuit is defined as a collection of conductors necessary to transmit electric power between two points. For underground cable systems, the number of conductors depends on the type of transmission technology. For HVAC transmission, there will be 3 conductors (or a multiple of 3), one for each phase. These can either take the form of three conductors bundled as one cable, or three separate cables. For HVDC transmission only two conductors (or multiple of 2) are necessary (assuming an earth return is not used). These typically are separate cables but may be attached together offshore for ease of installation. If there are multiple circuits between two points they typically will be differentiated by their ability to be isolated (by circuit breaker or disconnect) at either end. The circuit may or may not include one or more fibre optic cables for the purpose of control, monitoring, protection or general communications.
Design Envelope	A description of the range of possible elements which make up the project design options under consideration, as set out in detail in this chapter. This envelope is used to define the project for Environmental Impact Assessment (EIA) purposes when the exact engineering parameters are not yet known. This is also often referred to as the "Rochdale Envelope."
Dynamic Positioning (DP)	An advanced autopilot system installed on vessels that consists of thrusters, GPS, and a control unit. The system is capable of automatically holding a vessel at location and heading specified by the operator.
Edge Weighted Layouts	A type of wind turbine layout where the spacing at all or some of the boundary of the wind farm is less than the spacing between some or all of the inter array turbines.
Offshore Export Cables	Cables that transfer power from the offshore substation(s) or the converter station(s) to shore.
Offshore Interconnector Cables	Cables that may be required to interconnect the offshore substations in order to provide redundancy in the case of cable failure elsewhere, or to connect to the offshore accommodation platforms in order to provide power for operation.
Onshore Export Cables	Cables that transfer power from the offshore export cables to the onshore substation(s).
Spoil	Waste soil or sediment that is excavated or drilled out as part of the Project's installation works.
Trenchless Techniques	Also referred to as trenchless crossing techniques or trenchless methods. These techniques include HDD, thrust boring, auger boring, and pipe ramming, which allow ducts to be installed under an obstruction without breaking open the ground and digging a trench.
Weather Downtime	Hours or days when the weather conditions, including wave, tide, current, and/or wind, prevent work.
Wind Turbine Generator	All of the components of a wind turbine, including the tower, nacelle, and rotor.

Acronyms

Unit	Description
AEZ	Archaeological Exclusion Zone
AfL	Agreement for Lease
BEIS	Department for Business, Energy and Industrial Strategy (formerly DECC)
CAA	Civil Aviation Authority
CBRA	Cable Burial Risk Assessment
CEMP	Construction Environment Management Plan
CTV	Crew Transport Vessel
DCO	Development Consent Order
DECC	Department of Energy and Climate Change (now BEIS)
DNO	Distribution Network Operator
DP	Dynamic Positioning
DPV	Dynamic Positioning Vessel
DRA	Design Risk Assessment
ECR	Export Cable Route
EIA	Environmental Impact Assessment
EMF	Electro-magnetic Field
ES	Environmental Statement
FID	Final Investment Decision
GBF	Gravity Base Foundation
GPR	Ground Penetrating Radar
HAT	Highest Astronomical Tide
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
HSE	Health, Safety and Environment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IALA	International Association of Lighthouse Authorities
IPC	Infrastructure Planning Commission
JB	Joint Bay

Unit	Description
JNCC	Joint Nature Conservation Committee
JUV	Jack-up Vessel
LAT	Lowest Astronomical Tide
LB	Link Box
MBES	Multi-Beam Echo Sounder
MCA	Maritime and Coastguard Agency
MFE	Mass Flow Excavation
MHWS	Mean High Water Springs
MIND	Mass Impregnated Non-Draining
MoD	Ministry of Defence
MP	Monopile
MV	Medium Voltage
NPS EN-1	Overarching National Policy Statement for Energy
NPS EN-3	National Policy Statement for Renewable Energy Infrastructure
O&M	Operations and Maintenance
OAP	Offshore Accommodation Platform
Ofgem	Office of Gas and Electricity Markets
OFTO	Offshore Transmission Operator
OREI	Offshore Renewable Energy Installations
OSS	Offshore Substations
PAX	Passengers
PEIR	Preliminary Environmental Information Report
PINS	Planning Inspectorate
PLGR	Pre-Lay Grapple Run
PRoW	Public Rights of Way
ROV	Remotely Operated Vehicle
RPS	RPS Planning and Development Limited
SBP	Sub-bottom Profiler
SCADA	Supervisory Control and Data Acquisition
SCAR RCS	SCAR Route Clearance System

Unit	Description
SOV	Special Operations Vessel
SSS	Side Scan Sonar
SWMP	Site Waste Management Plan
TCE	The Crown Estate
TH	Trinity House Lighthouse Service
TJB	Transition Joint Bay
TJB	Transition Joint Bay
TP	Transition Piece
UXO	Unexploded Ordnance
VSC	Voltage Source Converter
WD	Water Depth
WTG	Wind Turbine Generator
XLPE	Cross Linked Polyethylene
ZDA	Zone Development Agreement
ZEA	Zone Environmental Appraisal

Units

Unit	Description
AC	Alternating Current (electricity)
DC	Direct Current (electricity)
GW	Gigawatt
KJ	Kilojoule
km	Kilometre
kV	Kilovolt
m/s	Metres Per Second
MW	Megawatt

3. Project Description

3.1 Introduction

- 3.1.1.1 Orsted Power (UK) Ltd. (hereafter referred to as Orsted), on behalf of Orsted Hornsea Project Three (UK) Ltd., is promoting the development of the Hornsea Project Three Offshore Wind Farm (hereafter referred to as Hornsea Three).
- 3.1.1.2 This chapter of the Environmental Statement provides an outline description of the potential design of Hornsea Three, based on preliminary conceptual design information and current understanding of the environment from initial survey work. It sets out the Hornsea Three design and components for both the onshore and offshore infrastructure, as well as the main activities associated with the construction, operation and maintenance, and decommissioning of Hornsea Three.
- 3.1.1.3 At this early stage in the Hornsea Three development process, the project description is indicative and **the ‘envelope’ has been designed to include sufficient flexibility to accommodate further project refinement** during detailed design, post consent. This chapter therefore sets out a series of options and parameters for which values are shown.
- 3.1.1.4 In order to avoid excessive conservatism in the assessments, the parameters assessed throughout the Environmental Impact Assessments (EIAs) are not a combination of the maximum design parameters for each component. For example, the EIA has not assessed both the maximum number of turbines and the parameters related to the largest turbine type within the envelope, as this is not a feasible scenario. Instead the maximum design scenario is chosen on a receptor by receptor and an impact by impact basis, based on a range of scenarios, whereby the physical size of the turbines is related to their number and the sizes of the associated infrastructure such as turbine foundations. These scenarios generally assume either the maximum number of turbines with parameters related to the use of the smallest turbine type, or the largest parameters in the envelope, and fewer turbines. The details of these maximum design scenarios are set out within the topic chapters, of this Environmental Statement (see volume 2: chapters 1 to 11, and volume 3: chapters 1 to 10) themselves.
- 3.1.1.5 It should also be noted that this project description does not refer directly to the capacity of the turbines, but rather their physical dimensions. In recent years, the capacity of the current generation of turbines has become more flexible, and may be different depending on the environmental conditions at the sites. It is also noted that the EIAs are not linked directly to the turbine capacity (but rather its physical dimensions such as tip height and rotor diameter), therefore it is not considered appropriate to constrain the envelope based on turbine capacity.

- 3.1.1.6 The final design will be refined after consent has been granted from within the parameters stated within this project description. Hornsea Three has already, throughout the EIA process (i.e. from Scoping to Preliminary Environmental Information Report (PEIR) to the Environmental Statement), started to refine the proposed values and to provide more detailed realistic maximum design scenarios where required.

3.2 Design Envelope approach

- 3.2.1.1 The use of the Design Envelope approach has been recognised in the Overarching National Policy Statement (NPS) for Energy (EN-1) (DECC, 2011a) and the NPS for Renewable Energy Infrastructure (EN-3) (DECC, 2011b). This approach has been used in the majority of offshore wind farm applications.
- 3.2.1.2 In the case of offshore wind farms, NPS EN-3 (**paragraph 2.6.42**) recognises that: *“Owing to the complex nature of offshore wind farm development, many of the details of a proposed scheme may be unknown to the applicant at the time of the application, possibly including:*
- *Precise location and configuration of turbines and associated development;*
 - *Foundation type;*
 - *Exact turbine tip height;*
 - *Cable type and cable route; and*
 - *Exact locations of offshore and/or onshore substations.”*
- 3.2.1.3 NPS EN-3 (paragraph 2.6.43) continues:
- “The IPC [Infrastructure Planning Commission] should accept that wind farm operators are unlikely to know precisely which turbines will be procured for the site until sometime after any consent has been granted. Where some details have not been included in the application to the IPC, the applicant should explain which elements of the scheme have yet to be finalised, and the reasons. Therefore, some flexibility may be required in the consent. Where this is sought and the precise details are not known, then the applicant should assess the effects the project could have (as set out in EN-1 paragraph 4.2.8) to ensure that the project as it may be constructed has been properly assessed (the Rochdale [Design] Envelope)”.* (DECC, 2011b).
- 3.2.1.4 NPS EN-3 also states (in footnote 23, on page 32) that:
- “The ‘Rochdale [Design] Envelope’ is a series of maximum extents of a project for which the significant effects are established. The detailed design of the project can then vary within this ‘envelope’ without rendering the ES [Environmental Statement] inadequate”.*
- 3.2.1.5 The Design Envelope approach is widely recognised and is consistent with PINS Advice Note Nine: Rochdale Envelope (PINS, 2012) which states (page 11, conclusions) that:

“The ‘Rochdale [Design] Envelope’ is an acknowledged way of dealing with an application comprising EIA development where details of a project have not been resolved at the time when the application is submitted”.

3.2.1.6 Throughout the Environmental Statement the Design Envelope (otherwise known as the “Rochdale Envelope”) Approach has been taken to allow meaningful assessments of Hornsea Three to proceed, whilst still allowing reasonable flexibility for future project design decisions.

3.3 Hornsea Three boundary

3.3.1.1 The boundary of Hornsea Three is delineated on Figure 3.1 below and specifically consists of the:

- Hornsea Three array area: This is where the offshore wind farm will be located, which will include the turbines, array cables, offshore accommodation platforms and a range of offshore substations as well as offshore interconnector cables and export cables;
- Hornsea Three offshore cable corridor: This is where the permanent offshore electrical infrastructure (offshore export cable(s), as well as the offshore HVAC booster station(s) (if required), (see Table 3.37 below) will be located; and
- Hornsea Three onshore cable corridor : This is where the permanent onshore electrical infrastructure (onshore export cable(s), as well as the onshore HVAC booster station (if required), onshore HVDC converter/HVAC substation and connections to the National Grid) will be located.

3.4 The Agreement for Lease (AfL) area

3.4.1.1 The Agreement for Lease (AfL) from The Crown Estate (TCE) allows Orsted, as a prospective tenant of the AfL, to carry out investigations, such as survey activities, to identify the potential design within the Hornsea Three array area. It allows Hornsea Three to understand environmental sensitivities that may exist, in advance of submitting the consent application, whilst and before applying to TCE for a lease for the lifetime of the wind farm. As noted under NPS EN-3, the detailed design cannot be proposed at this stage, however further information on the site will inform the refinement of the Design Envelope post consent.

3.4.1.2 The AfL for the Hornsea Three array area covers approximately 696 km² and is broadly a diamond shape with a length of approximately 29 km west to east and 35 km north to south. The AfL area is where the offshore infrastructure, such as the turbines, offshore substation(s) and array cables, will be located. This area is hereafter referred to as the Hornsea Three array area throughout this chapter (see Figure 3.1).

3.4.1.3 Hornsea Three has applied to The Crown Estate for an Agreement for Lease for the offshore cable corridor.

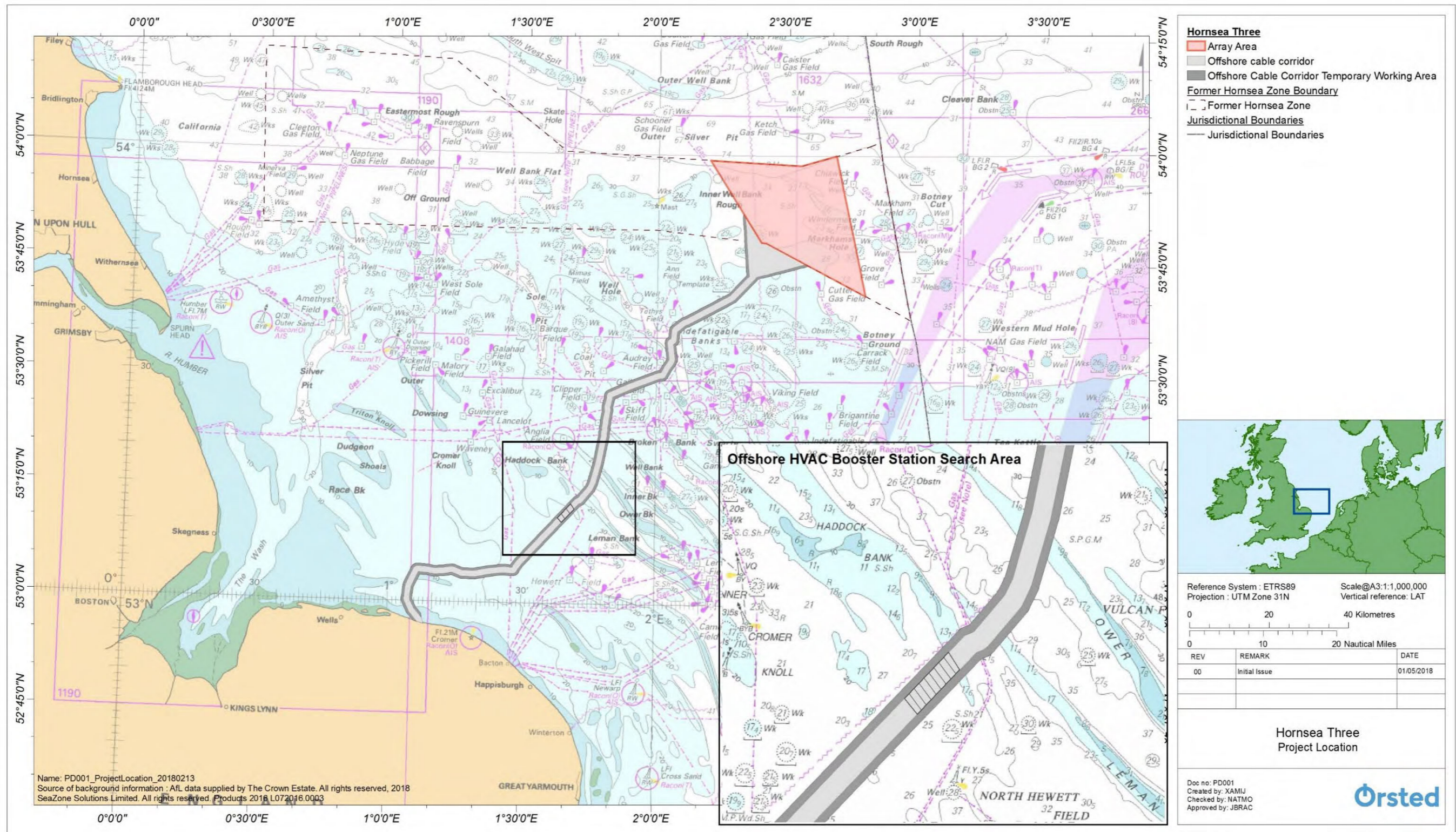


Figure 3.1: Overview of the Hornsea Three project location.

3.5 Project infrastructure overview

3.5.1.1 Hornsea Three will comprise of turbines and all infrastructure required to transmit the power generated by the turbines to the existing Norwich Main National Grid substation, which is located south of Norwich. It will also comprise of any offshore infrastructure required to operate and maintain the wind farm.

3.5.1.2 Hornsea Three will have a maximum of 300 turbines, and will have a capacity of approximately 2.4 GW. The ultimate capacity of the project will be determined based on available technology as constrained by the Design Envelope presented in this chapter. On this basis, references throughout this Environmental Statement to a capacity of up to 2.4 GW are references to an approximate capacity only.

3.5.1.3 The maximum proposed number of turbines has been reduced from the 342 proposed in the PEIR. This will reduce impacts on several receptors including, but not limited to, those associated with the following chapters;

- Marine Mammals (volume 2, chapter 4);
- Offshore Ornithology (volume 2, chapter 5);
- Commercial Fisheries (volume 2, chapter 6); and
- Shipping and Navigation (volume 2, chapter 7).

3.5.1.4 The onshore infrastructure will consist of up to 18 onshore export cables buried in up to six trenches and an onshore HVDC converter/HVAC substation to allow the power to be transferred to the National Grid via the existing Norwich Main National Grid substation. It may also include an onshore HVAC booster station.

3.5.1.5 Hornsea Three may use HVAC or HVDC transmission, or could use a combination of both technologies in separate electrical systems. Hornsea Three is applying for both HVAC and HVDC transmission to allow for suitable flexibility to ensure a low cost of energy to the UK consumer and to facilitate successful completion of Hornsea Three in a competitive market. If a combination of the two technologies is used, the total infrastructure installed will not exceed the maximum values assessed within this Environmental Statement.

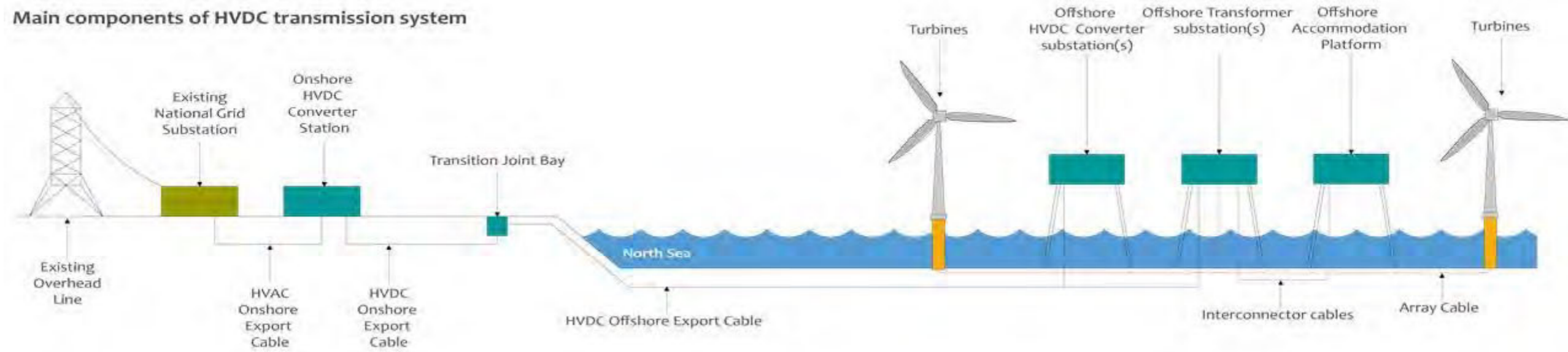
3.5.1.6 The key components of Hornsea Three are likely to include (also shown in Figure 3.2):

- Offshore turbines;
- Foundations (for turbines, offshore substation platforms, and offshore accommodation platforms);
- Scour protection;
- Offshore accommodation platform(s);
- Array cables linking the individual turbines to offshore substations;
- Connection works to existing Norwich Main Substation;
- Temporary construction compounds, including storage areas;

- Permanent and temporary access roads; and
- HVAC or/and HVDC transmission system including either:
 - HVAC:
 - Offshore transformer substation(s);
 - Offshore interconnector cables(s);
 - Offshore export cable(s);
 - Offshore HVAC booster station(s) (unless specified otherwise, this refers to both Surface and Subsea designs. See paragraph 3.6.9.19 to 3.6.9.31));
 - Onshore export cable(s);
 - Onshore HVAC booster station (either instead of, or as well as, offshore HVAC booster station(s));
 - Onshore HVAC substation; and
 - Grid connection export cable(s).
 - HVDC:
 - Offshore transformer substation(s);
 - Offshore interconnector cables(s);
 - Offshore HVDC converter substation(s);
 - Offshore export cables(s);
 - Onshore export cables(s);
 - Onshore HVDC converter substation; and
 - Grid connection export cable(s).

3.5.1.7 It is likely that the Hornsea Three components will be fabricated at a number of manufacturing sites across Europe or elsewhere, to be determined as part of a competitive tendering process upon award of consent and the completion by Orsted of a Final Investment Decision (FID). A construction base (port facility) may be used to stockpile some components, such as foundations and turbines, before delivery to the Hornsea Three array area for installation. Other components, such as pre-fabricated offshore substation units, may be delivered directly to the Hornsea Three array area when required. An onshore operations and maintenance base may be provided to support the operating wind farm after construction. This onshore operations and maintenance base is not included in this application and any consent will be secured at a later date when the location and requirements for this are known.

Main components of HVDC transmission system



Main components of HVAC transmission system

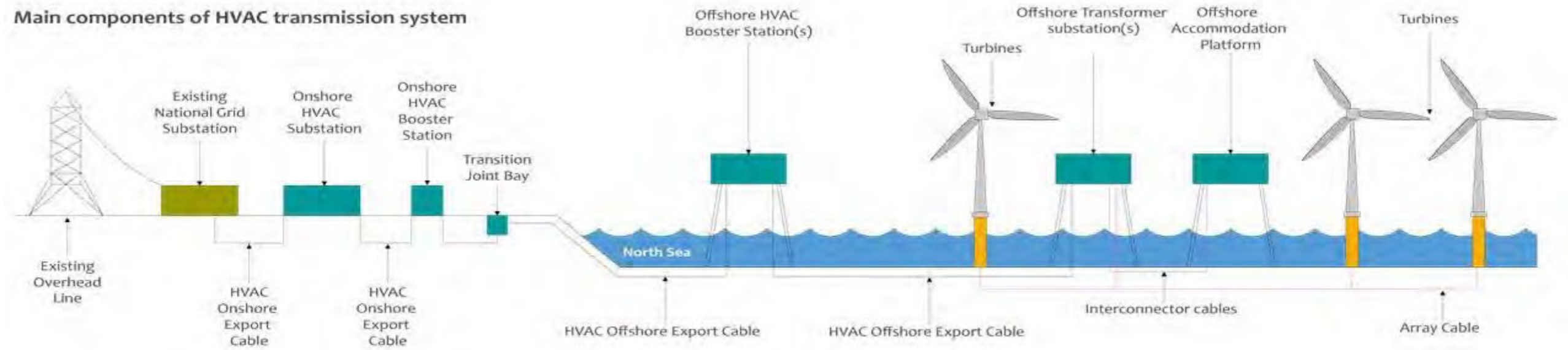


Figure 3.2: Overview of Hornsea Three infrastructure.

3.5.1.8 Hornsea Three may be constructed in a single phase or two phases. Although the total durations for each component would not exceed those stated in this document, there may be periods where work stops as one phase is completed and is initiated again for the following phase after a gap.

3.5.1.9 The maximum number of phases has been reduced from the three phases proposed in the PEIR. This will reduce impacts on a number of receptors including, but not limited to:

- Ecology and Nature Conversation (volume 3, chapter 3); and
- Land Use and Recreation, including Public Rights of Way (PRoW) (volume 3, chapter 6).

3.5.1.10 The offshore wind farm and associated grid connection components are briefly described in the following sections. Maximum design parameters (dimensions and/or numbers where appropriate) are provided to indicate the potential scale of the proposed offshore wind farm, as well as to inform the EIA. A further refined and detailed project description compared to the project description presented in the PEIR is presented here based on the findings of the consultation and EIA process.

3.6 Offshore infrastructure

3.6.1 Introduction

3.6.1.1 The following sections provide a description of the offshore components of Hornsea Three together with relevant information on construction or operation and maintenance methods and techniques where these are relevant to the EIA.

3.6.2 Site preparation activities

3.6.2.1 A number of site preparation activities will need to be undertaken in the Hornsea Three array area and offshore cable corridor (including the offshore HVAC booster station search area) prior to the commencement of construction. An overview of these activities is provided below.

Pre-Construction Surveys

3.6.2.2 A number of pre-construction surveys will be undertaken, approximately one to two years prior the start of offshore construction works, to identify, in detail, seabed conditions and morphology, and presence/absence of any potential obstructions or hazards and to verify seabed layers. These geophysical and geotechnical surveys will be conducted across the Hornsea Three array area and offshore cable corridor. They will comprise techniques such as side scan sonar (SSS), sub-bottom profiling, multibeam bathymetry and backscatter, high-density magnetometer surveys, geotechnical boreholes, CPTs and vibrocores. In addition Remotely Operated Vehicle (ROV) inspection work will be undertaken on potential items of UXO near to the cable route position lists.

3.6.2.3 Geotechnical surveys will be conducted within the footprint of the export cable corridor, turbines, offshore substations and other infrastructure.

3.6.2.4 Geophysical survey works will be carried out to provide detailed UXO, bedform and boulder mapping, bathymetry, a topographical overview of the seabed and an indication of sub-layers. These will be carried out within the whole Hornsea Three array area and offshore cable corridor boundary, utilising towed arrays and sonar, with no seabed interaction.

Unexploded Ordnance (UXO) clearance

3.6.2.5 It is common to encounter Unexploded Ordnance (UXO) originating from World War I or World War II during the construction of offshore infrastructure. This poses a health and safety risk where it coincides with the planned location of infrastructure and associated vessel activity, and therefore it is necessary to survey for and carefully manage UXO. If UXOs are found, they are either avoided, removed or detonated in situ. Due to the intensity of the surveys required to accurately identify UXO, this work cannot be conducted before detailed design work has confirmed the planned location of infrastructure. It is therefore not possible at this time to define the number of UXO which may require detonation. As a result, a separate Marine Licence will be applied for pre-construction for the detonation (where required) of any UXO which may be identified in pre-construction surveys. However, the detonation of UXO is a source of additional noise in the marine environment and hence may need to be considered in the assessments for certain receptors and hence some information is provided below on what could be anticipated in relation to UXO detonation.

3.6.2.6 In order to define a design scenario for consideration in the EIA a review of recent publicly available information on UXO disposal was undertaken, including a recent study by von Benda-Beckmann *et al.* (2015) and noise modelling work carried out to inform the assessment of the potential effect of UXO clearance at the Beatrice Offshore wind farm site (BOWL 2016), along with experience from Hornsea Project One. Hornsea Project One identified 23 UXO targets that required in-situ detonation and therefore the same number could be expected for Hornsea Project Three across the Hornsea Three array area and offshore cable corridor and is considered a realistic assumption. The outputs of the study by Von Benda-Beckmann *et al.* (2015) and clearance at the Beatrice Offshore wind farm site (BOWL 2016) are used to inform specific assessments in relation to marine mammals (see volume 2, chapter 4: Marine Mammals).

Methodology

3.6.2.7 Targets identified during the geophysical survey that model as potential UXO (pUXO) can either be investigated to confirm their identity or avoided by a suitable distance. Indicative exclusion zones are given in Table 3.1 below.

Table 3.1: Maximum design scenario: Avoidance buffers for UXOs.

Feature	Exclusion Zone Radius (m)
Foundation	30
Cables	15
Jack-up leg	15

3.6.2.8 Inspections will be conducted using divers in the nearshore and intertidal areas. Inspections will be conducted using ROV in all other offshore areas.

3.6.2.9 Following consultation with the MMO and Ministry of Defence (MoD), any UXO found with a potential to contain live ammunition may be detonated on site and any remaining debris removed. UXO clearance for Hornsea Three will be carried out approximately one to two years prior the start of offshore construction works.

3.6.2.10 Following careful excavation of suspected UXO, identification of each UXO target will generally be made visually by on-board specialists monitoring camera footage (Figure 3.3). An immediate risk assessment will be carried out to enable a decision on the appropriate management required for each target.

3.6.2.11 Where a target is confirmed as non-UXO (i.e. to be inert) the device may be recovered for onshore disposal where practicable. Inert devices that cannot be practically moved will be left in-situ with Hornsea Three infrastructure to be micro-sited around the device. Non-inert devices will be managed through clearance as shown in Figure 3.4. Should an UXO be identified and clearance is required, the maximum design scenario would be an explosive detonation of the UXO in-situ to make it safe for disposal (if practicable).

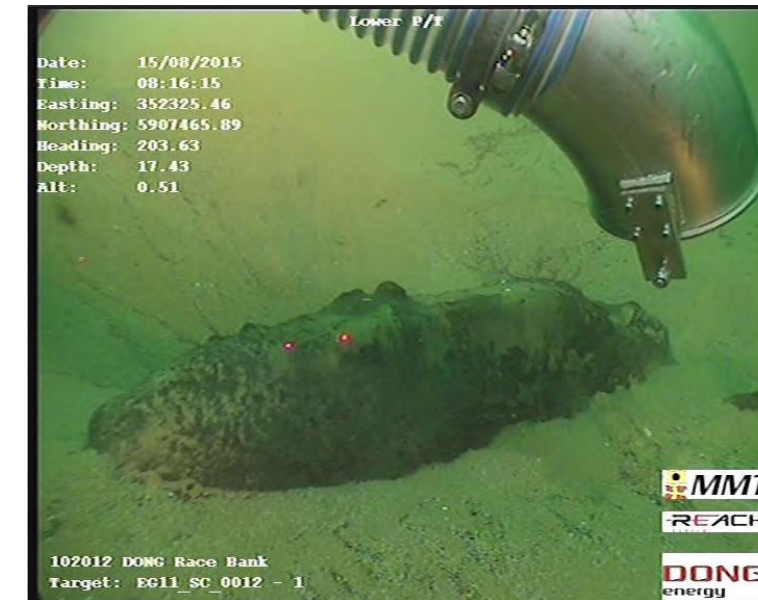


Figure 3.3: An example of a UXO following excavation.

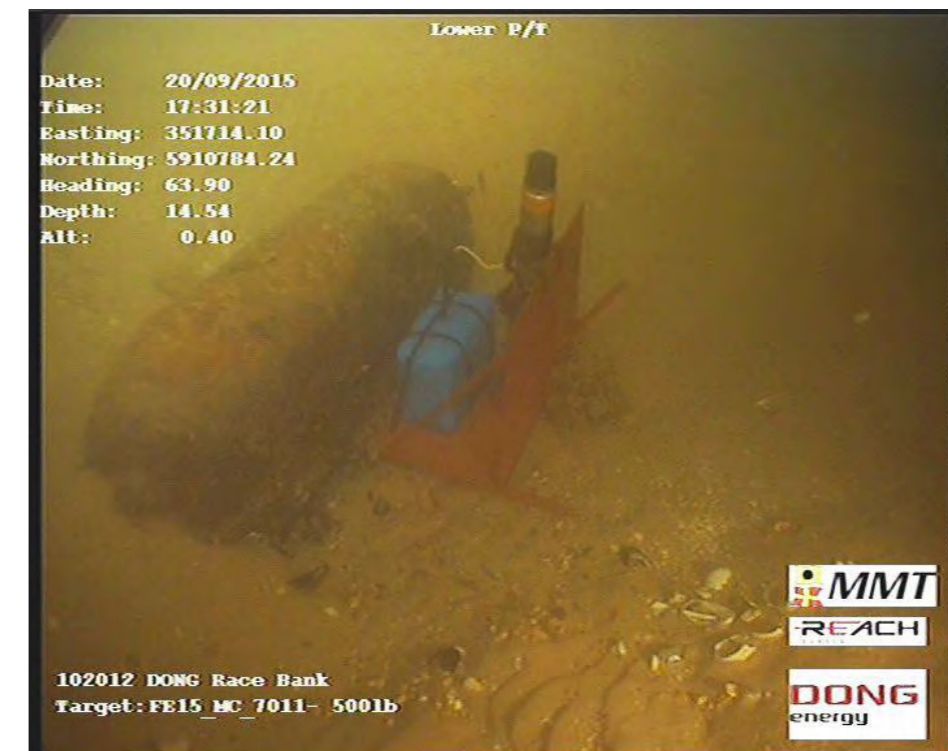


Figure 3.4: An example of a UXO fitted with an explosive charge.

Boulder Clearance

3.6.2.12 Geophysical surveys have been undertaken within the Hornsea Three array area and offshore cable corridor and have been used to inform boulder clearance requirements for the purposes of the EIA.

3.6.2.13 From the interpretation of these data, a large number of boulders can be seen to cover the Hornsea Three array area and offshore cable corridor. The volume of boulders recorded means that micrositing of cables around these contacts would be onerous and impractical. If left *in-situ*, these boulders will pose the following risks to Hornsea Three:

- Exposure of cables and/or shallow buried cables, that might lead to the requirement for post-lay cable protection such as rock dumping or concrete matting;
- Obstruction risk to the cable installation equipment, leading to damage and/or multiple passes and therefore, a delayed cable installation programme (with no guarantee of achieving target burial depth); and
- Risk of damage to the cable assets.

3.6.2.14 As a result of the above risks, Hornsea Three have identified that boulders over a certain size will be required to be cleared from the cable installation footprint.

3.6.2.15 Based on current industry experience within similar geological conditions, the following assumptions are made:

- Boulders greater than 0.3 m in any dimension must be cleared;
- For cables within the Hornsea Three offshore cable corridor, a corridor of up to 25 m must be cleared to ensure that all the export cable burial tools being considered in the envelope can operate in the cleared corridors; and
- For cables within the Hornsea Three array area, a corridor of up to 15 m must be cleared as this width is sufficient for the operation of the array cable burial tools under consideration.

3.6.2.16 Boulder clearance is a common feature of offshore wind farm route clearance, taking place prior to the main construction process.

Methodology

3.6.2.17 There are two methodologies, specifically a displacement plough or a subsea grab, that may be selected for undertaking boulder clearance activities. These are presented within this section.

3.6.2.18 A displacement plough such as a SCAR RCS (shown in Figure 3.5) is a simple and robust Y-shaped design configured with a boulder board attached to the plough that scrapes along the seabed surface displacing boulders along a clearance path; a common size of this tool will clear a 15 m path. The plough will be pulled along the seabed using pulling chains. The plough will be lightly ballasted to only clear the way of boulders and not to create a deep depression in the seabed with resulting berm on each side.

3.6.2.19 For export cable sections that are densely populated by surface boulders, a displacement plough is the most likely method that will be employed to clear the export cable corridor ready for the cable trenching and burial operations.

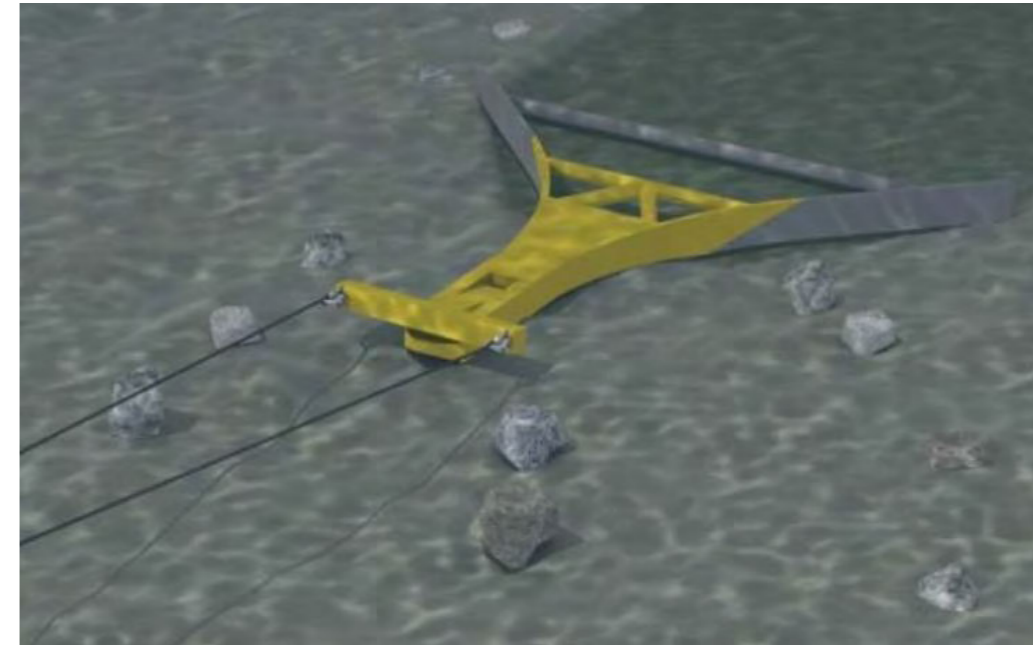


Figure 3.5: Example of a SCAR RCS.

3.6.2.20 There are two limitations of using the SCAR RCS or similar tools:

- The SCAR RCS or similar tools cannot be used in areas where slopes are present in excess of 5°; and
- If the SCAR RCS or a similar tool encounters an obstacle on the seabed such as a large boulder, that encounters a force greater than 80 Te, a rotational shift may occur in the tool resulting in potential damage to the tool and reduced effectiveness of the clearance tool in these areas.

3.6.2.21 As a result of the above limitations, this method is often used in combination with the subsea grab method (shown in Figure 3.6). Boulder clearance using a subsea grab may be conducted where boulder density is lower and where seabed slope is high (>5°). The vessel will be equipped with a survey and ROV spread to assist in subsea positioning of the grab onto the boulders and for recording their new position.



Figure 3.6: Example of a subsea grab tool (Source: DEME Group).

Table 3.2: Maximum design parameters for boulder clearance in the Hornsea Three array area.

Parameter	Maximum value
Array cable clearance corridor width – SCAR RCS (m)	15
Export and interconnector cable clearance corridor width – SCAR RCS (m)	25
Clearance corridor width – subsea grab (m)	Size of individual boulders within 15 m corridor ^a
Clearance impact area – Markham's Triangle ^{a,b} (m ²)	2,122,759
Total clearance impact area – SCAR RCS ^c (m ²)	8,910,000
Total clearance impact area – subsea grab ^c (m ²)	6,814,500
a	While this is the clearance corridor for the subsea grab tool, individual boulders will be grabbed within the corridor. Thus the impact is in a much smaller area.
b	For the purposes of this assessment, it is assumed that a maximum of 24% of the array infrastructure (i.e. foundation and cable infrastructure) could be placed in the part of the Hornsea Three array area which coincides with the Markham's Triangle rMCZ. This assumption is based on the maximum number of structures that could be placed within this part of the Hornsea Three array area, assuming a minimum spacing of 1 km between foundations (i.e. 76 foundations for turbines, substations and accommodation platforms, of a total 319 offshore structures).
c	Total impact area for SCAR RCS and subsea grab are mutually exclusive.

3.6.2.22 The presence, position and nature of the boulders will first be visually confirmed through ROV inspection. The subsea grab will be lowered over the confirmed boulder using the vessel crane. The engagement of the mechanical grab with the boulder will be guided by observations using the ROV. The boulder is lifted off the seabed and relocated.

3.6.2.23 Boulder relocation using a subsea grab can be a very effective way of relocating individual boulders that are found scattered in small and moderate numbers across the seabed, and gives the ability to relocate **the boulders in a 'natural' scattered manner with only limited interaction with the seabed and therefore does not disturb seabed sediments.**

3.6.2.24 For the Hornsea Three array area, boulder interpretation has been carried out to identify boulders that would require clearance. Assumptions on the tool required to clear these areas have been made taking the following into consideration:

- Where a high density of boulders is seen, the expectation is that the SCAR RCS or similar system will be required to clear the cable installation corridor (this is considered to present the maximum design scenario but in some scenarios a subsea grab may be used as explained in 3.6.2.20);
- Where a medium density of boulders is seen, a subsea grab is expected to be employed; and
- Where a low density of boulders is seen, a subsea grab is expected to be employed, or it is possible that installations may be micro-sited to avoid the requirement to clear boulders.

3.6.2.25 An indicative maximum design scenario has been calculated based on the methodology above for boulder clearance in the Hornsea Three array area and this is presented in Table 3.2 below.

3.6.2.26 For the Hornsea Three offshore cable corridor, boulder interpretation has been carried out to identify potential boulders that would require clearance. Assumptions on the tool required to clear these areas have been made taking this into consideration:

- Where a high density of boulders is seen, the expectation is that the SCAR RCS or similar system will be required to clear the cable installation corridor, where the size of the boulders is sufficiently small to be cleared by the tool (this is considered to present the maximum design scenario but in some scenarios a subsea grab may be used as explained in 3.6.2.20); and
- Where medium and low densities of boulders are seen, a subsea grab is expected to be employed (note that due to the wider clearance corridor required, it is thought to be unlikely that micrositing can be successfully carried out to avoid all boulders, even in the areas currently seen to have a relatively lower density of boulders >1 m).

3.6.2.27 The maximum design scenario has been calculated based on the methodology above for boulder clearance in the Hornsea Three offshore cable corridor and this is presented in Table 3.3 below.

Table 3.3: Maximum design parameters for boulder clearance in the Hornsea Three offshore cable corridor.

Parameter	Maximum value
Clearance corridor width – SCAR RCS (m)	25
Clearance corridor width – subsea grab (m)	Size of individual boulders within 15 m corridor
Clearance impact area – Cromer Shoal Chalk Beds MCZ – subsea grab only(m ²)	176,900
Clearance impact area – North Norfolk Sandbanks and Saturn Reef SAC - subsea grab (m ²)	3,638,200
Clearance impact area The Wash and North Norfolk Coast SAC - subsea grab (m ²)	1,632,000
Clearance impact area – North Norfolk Sandbanks and Saturn Reef SAC – SCAR RCS (m ²)	3,327,900
Total clearance impact area – SCAR RCS (m ²)	16,565,100
Total clearance impact area – subsea grab (m ²)	14,017,000

Pre-lay Grapnel Run

3.6.2.28 Following the pre-construction route survey (paragraph 3.6.2.2 *et seq.*) and clearance works (paragraph 3.6.2.5 *et seq.*), it is likely that a Pre-Lay Grapnel Run (PLGR) and an associated route clearance survey of the final cable route will be undertaken. A multi-purpose vessel will be mobilised with a series of grapnels, chains, recovery winch and survey spread suitable for vessel positioning and data logging.

3.6.2.29 Any items recorded will be recovered onto deck where possible and the results of this survey will be used to determine the need for any further clearance. The PLGR work will take account of and adhere to any archaeological protocols developed for Hornsea Three (see volume 5, annex 9.2: Outline Written Scheme of Investigation) .

3.6.2.30 If the final route of the offshore cables crosses any out of service cables, these will be recovered to a vessel deck, where one end will be cut, in order to pull the cable past the crossing point. The cable will then be cut, and pulled to the surface where it will be removed from site by the vessel. Any out of service cable removal will be carried out in consultation with the asset owner and in accordance with the International Cable Protection Committee (ICPC) guidelines (2011).

Sandwave Clearance

3.6.2.31 In some areas within the Hornsea Three array area and along the offshore cable corridor existing sandwaves and similar bedforms may be required to be removed before cables are installed. This is done for two reasons. Firstly, many of the cable installation tools require a relatively flat seabed surface in order to work properly as it may not be possible to install the cable up or down a slope over a certain angle, nor where the installation tool is working on a camber. Secondly, the cable must be buried to a depth where it may be expected to stay buried for the duration of Hornsea Three's project lifetime (35 years). Sandwaves are generally mobile in nature therefore the cable must be buried beneath the level where natural sandwave movement would uncover it. Sometimes this can only be done by removing the mobile sediments before installation takes place.

Methodology

3.6.2.32 A sandwave clearance campaign will be completed approximately one year in advance of cable installation. If required, sandwave clearance will be completed in areas within the Hornsea Three array area at turbine, substation and accommodation platform locations, and along the offshore cable corridor, including at the offshore HVAC booster stations.

3.6.2.33 In the Hornsea Three array area and offshore cable corridor geophysical survey data from site specific surveys were used to estimate the sandwave clearance volumes, assuming a disturbance width of 30 m per cable. However, the approach to estimating the required clearance differed between the Hornsea Three array area and the offshore cable corridor due to the certainty of encountering sandwave features. For example, sandwave features are often seen across the majority of the width of the Hornsea Three offshore cable corridor and therefore the chances of encountering these are considered high. However, as the array and interconnector cable layout is unknown and will not be confirmed before detailed design, a different approach was taken to consider the chances of encountering sandwaves within the Hornsea Three array area, as described in 3.6.2.35 below.

3.6.2.34 Within the Hornsea Three offshore cable corridor, sandwaves that were of sufficient height and formed with sufficient slope to be considered likely to require clearance have been identified based on the offshore export cable installation technique to be employed (see section 3.6.10) and sandwave clearance experience within Ørsted. The maximum design scenario for sandwave clearance in the Hornsea Three offshore cable corridor is summarised in Table 3.4 below.

3.6.2.35 Within the Hornsea Three array area, bathymetry data were used to identify sandwaves and it was determined that up to 60% of the array, interconnector and export cables within the Hornsea Three array area would require sandwave clearance. The maximum design scenario for sandwave clearance in the Hornsea Three array area is summarised in Table 3.5 below.

3.6.2.36 In addition to sandwave clearance, pre-trenching and pre-sweeping may be required to prepare the site for cable installation. This is described as part of cable installation in section 3.6.10 below.

Seabed preparation for foundations

Methodology

3.6.2.37 Some form of seabed preparation may be required for each foundation type. Seabed preparations may include seabed levelling, and removing surface and subsurface debris such as (for example) boulders, lost fishing nets or lost anchors. If debris is present below the seabed surface, then excavation may be required for access and removal.

3.6.2.38 Gravity base foundations need to be placed in pre-prepared areas of seabed. Seabed preparation would involve levelling and dredging of the soft mobile sediments as required, as well as any boulder and obstruction removal. UXO, boulder and sandwave clearance for foundations are discussed earlier in this section.

3.6.2.39 It is likely that dredging would be required if using the gravity base foundations. If dredging is required it would be carried out by dredging vessels using suction hoppers or similar, and the spoil would be deposited on site adjacent to the turbine locations. In some cases, it may be required to place a layer of gravel on the seabed prior to installation of gravity base foundations. Gravel volumes, where required, are provided in Table 3.10 to Table 3.15.

Table 3.4: Maximum design parameters for sandwave clearance in the Hornsea Three offshore cable corridor.

Parameter	Maximum design parameters
Sandwave clearance impact width (m)	30
Length of export cables affected by sandwaves – within Cromer Shoal Chalk Beds MCZ (km)	1
Length of export cables affected by sandwaves – within The Wash and North Norfolk Coast SAC (km)	11
Length of export cables affected by sandwaves – within North Norfolk Sandbanks and Saturn Reef SAC (km)	32
Length of export cables affected by sandwaves – outside designated sites (km)	58
Length of export cables affected by sandwaves – Total in the offshore export cable corridor (km)	102
Sandwave clearance – within Cromer Shoal Chalk Beds MCZ (m ³)	1,329
Sandwave clearance – within The Wash and North Norfolk Coast SAC (m ³)	132,737
Sandwave clearance – within North Norfolk Sandbanks and Saturn Reef SAC (m ³)	619,689
Sandwave clearance – outside designated sites (m ³)	449,202
Sandwave clearance – total (m ³)	1,202,956

Table 3.5: Maximum design parameters for sandwave clearance in the Hornsea Three array area.

Parameter	Maximum design parameters
Sandwave clearance impact width – array, interconnector and export cables (m)	30
Length of array cables affected by sandwaves (km)	498
Sand-wave clearance: Array cables (m ³)	52,031
Sand-wave clearance: Export cable (Within Array Area Only) Total (m ³)	1,755
Sand-wave clearance: Interconnector cables (m ³)	14,105
Sand-wave clearance: Foundations (m ³)	3,260
Sand-wave clearance: Total in Markham's Triangle (export cables, array cables, interconnector cables, foundations) (m ³)	7,471
Sand-wave clearance: Total in array area (export cables, array cables, interconnector cables, foundations) (m ³)	71,150

3.6.3 Turbines

Design

3.6.3.1 Hornsea Three requires flexibility in wind turbine choice to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design. The Design Envelope therefore sets maximum and, where relevant, minimum design scenario parameters against which likely significant environmental effects have been assessed. It is possible that more than one turbine type may be selected to be used within the Hornsea Three array area.

3.6.3.2 Hornsea Three may construct up to 300 turbines. A range of turbine models will be considered; however, they are likely to all follow the traditional offshore wind turbine design with three blades and a horizontal rotor axis. The blades will be connected to a central hub, forming a rotor which turns a shaft connected to the generator or gearbox (if required). The generator and gearbox will be located within a containing structure known as the nacelle situated adjacent to the rotor hub. The nacelle will be supported by a tower structure affixed to the transition piece or foundation. **The nacelle will be able to rotate or 'yaw' on the vertical axis in order to face the oncoming wind direction.** An illustration of this design can be seen in Figure 3.7 and a picture of a turbine at Walney offshore wind farm is shown in Figure 3.8 below.

3.6.3.3 The maximum design scenario for turbines describes two scenarios that represent the extents of the Design Envelope; scenario one comprising maximum number of smallest turbines, and scenario two comprising maximum number of largest turbines. The most numerous turbine scenario has a maximum of 300 turbines. The maximum size turbine has a rotor diameter of 265 m and a maximum blade tip height of 325 m relative to LAT (highest point of the structure). The minimum distance between the bottom of the blade and the water surface will be 34.97 m LAT for both the smallest and largest turbine scenario. All turbines will be marked for aviation and navigation purposes.

3.6.3.4 The maximum design scenario for the Hornsea Three turbines is shown in Table 3.6.

Access

3.6.3.5 The turbines may be accessed either from a vessel via a boat landing or a stabilised gangway via the foundation or transition piece, or by hoisting from a helicopter to a heli-hoist platform on the nacelle. Any helicopter access would be designed in accordance with relevant Civil Aviation Authority (CAA) guidance and standards.

Oils and fluids

3.6.3.6 Table 3.7 shows maximum requirements for oils and fluids in a single offshore wind turbine. Each turbine will contain components that require lubricating oils, hydraulic oils and coolants for operation (not including any other infrastructure sited on a transition piece for which values will not exceed the totals in Table 3.7 across the Hornsea Three array area).

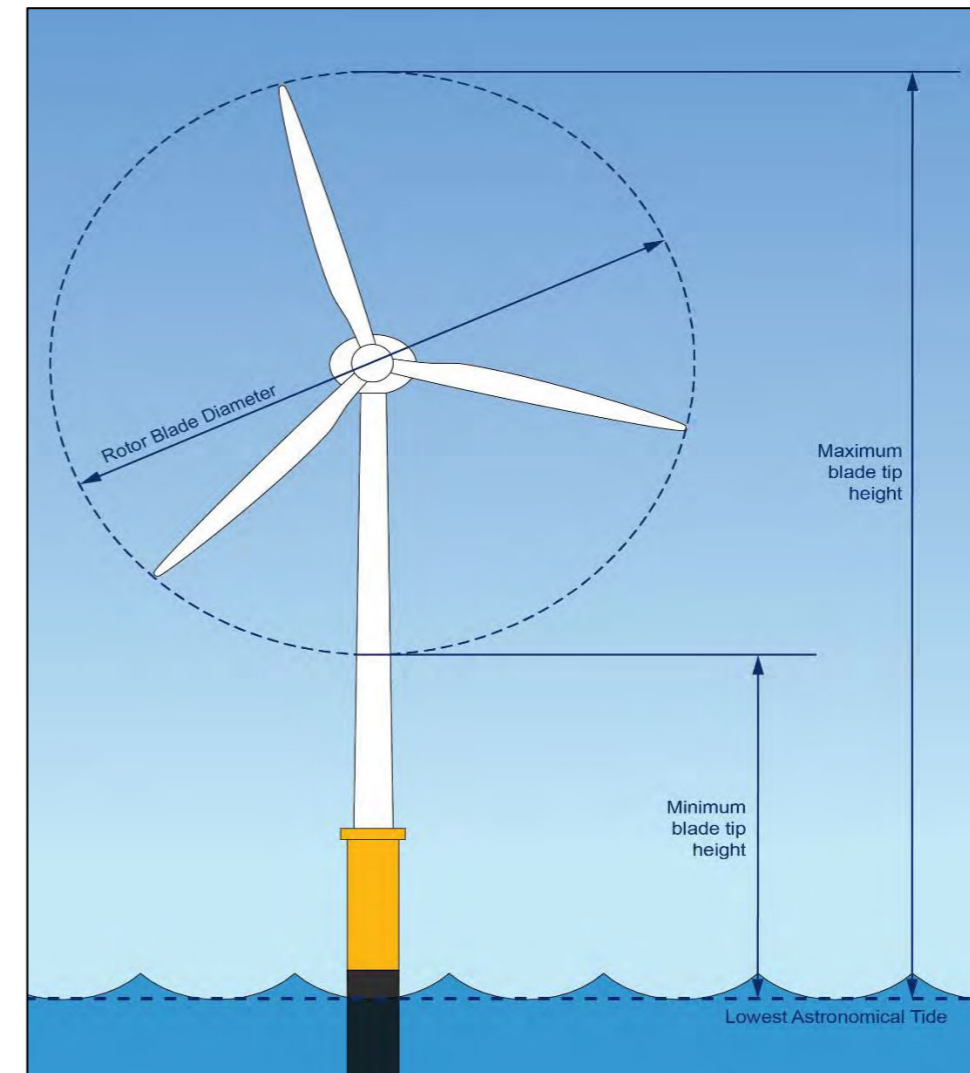


Figure 3.7: Schematic of an offshore wind turbine.

Table 3.6: Maximum design scenario: turbines.

Parameter	Maximum design scenario – Most Numerous Turbine	Maximum design scenario – Largest Turbine
Number of turbines	300	160
Minimum height of lowest blade tip above LAT (m)	34.97	34.97
Maximum blade tip height above LAT (m)	250	325
Maximum rotor blade diameter (m)	195	265



Figure 3.8: Turbines at Walney offshore wind farm.

Table 3.7: Maximum design parameters for turbine oils and fluids for a single turbine.

Parameter	Maximum design parameters
Grease (l)	1,300
Hydraulic oil (l)	20,000
Gear oil (l)	2,000
Total lubricants (l)	~25,000
Nitrogen (l)	80,000
Transformer silicon/ester oil (l/kg)	7,000
Diesel Fuel (l)	2,000
SF6 (kg)	6
Glycol / Coolants (l)	13,000

Control systems

3.6.3.7 Turbines operate within a set wind speed range. At approximately 3 m/s the wind turbine will start to generate electricity and at around 15 m/s they will reach maximum output. At around 25 m/s the turbine output starts to reduce towards zero. This enables the turbine to shut down in high wind speeds to protect the turbine and foundation, whilst enabling a gradual ramp-down of the power output to support the operation of the National Grid.

3.6.3.8 Each turbine will have its own control system to carry out functions like yaw control and ramp down in high wind speeds. All the turbines are also connected to a central Supervisory Control and Data Acquisition (SCADA) system for control of the wind farm remotely. This allows functions such as remote turbine shutdown if faults occur. The SCADA system will communicate with the wind farm via fibre optic cables, microwave, or satellite links. Individual turbines can also be controlled manually from within the turbine nacelle or tower base in order to control the turbine for commissioning or maintenance activities.

Installation

3.6.3.9 Generally, turbines are installed using the following process:

- Turbine components are picked up from a port in the UK or Northern Europe by an installation vessel. This vessel will typically be a Jack-Up Vessel (JUV) to ensure a stable platform for installation vessels when on site. JUVs are assumed to have up to six legs with an area of 170 m² per foot. Generally, blades, nacelles, and towers for a number of turbines are loaded separately onto the vessel;
- The installation vessel will then transit to the Hornsea Three array area and the components will be lifted onto the existing foundation or foundation and transition piece, by the crane on the installation vessel. Each turbine will be assembled on site in this fashion with technicians fastening components together as they are lifted into place. The exact methodology for the assembly is dependent on turbine type and installation contractor, and will be defined in the pre-construction phase after grant of consent; or
- Alternatively, the turbine components may be loaded onto barges or dedicated transport vessels at port, and installed as above by an installation vessel that remains on site throughout the installation campaign.

3.6.3.10 The total duration of the installation campaign for turbines is expected to be a maximum of 30 months.

3.6.3.11 Each installation vessel or barge may be assisted by a range of support vessels. These are typically smaller vessels that may be tugs, guard vessels, anchor handling vessels, or similar. These vessels will primarily make the same movements to, from and around the windfarm as the installation vessels they are supporting.

3.6.3.12 For the purposes of the EIA, the assumptions in Table 3.8 have been made on the maximum number of vessels and the number of return trips to the Hornsea Three array area from port that are required throughout the turbine installation campaign.

Table 3.8: Wind turbine installation assumptions.

Vessel Type	Maximum number of vessels	Maximum number of return trips per vessel type
Installation vessel	4	300
Support vessels	24	1,800
Transport vessels	12	900
Helicopter support	-	225

3.6.4 Wind turbine and surface infrastructure layouts

3.6.4.1 Designing and optimising the layout of the turbines and other offshore surface infrastructure (offshore substations and offshore accommodation platforms) is a complex, iterative process taking into account a large number of inputs and constraints including;

- Site conditions:
 - Wind speed and direction;
 - Water depth;
 - Ground conditions;
 - Environmental constraints (anthropogenic and natural);
 - Seabed obstructions (e.g. wrecks, Unexploded ordnance (UXO), existing cables); and
 - Pre-determined boundaries (AfL area).
- Design considerations:
 - Turbine type;
 - Installation set-up;
 - Foundation design;
 - Electrical design; and
 - Operation and maintenance requirements.

3.6.4.2 The Hornsea Three layouts will be designed such that they comply with a series of principles as detailed in volume 4, annex 3.7: Layout Development Principles.

3.6.4.3 In order to inform the EIA, Hornsea Three has identified two indicative layout scenarios. The indicative layout scenarios have been used within the EIA where appropriate. Layout A (Figure 3.9) includes the maximum number of structures (300 turbines and 19 platforms (offshore accommodation and substations) within the Hornsea Three array area). It includes a dense border at an approximate spacing of 1 km and a single line of orientation inside the border. As the locations of the infrastructure are not yet defined, the layouts do not distinguish between what type of infrastructure is placed in each location. Individual assessment chapters have therefore made assumptions as to which locations are turbines or platforms in order to inform the maximum design scenario for the relevant assessment.

3.6.4.4 Layout B is shown in Figure 3.10. This layout shows an indicative scenario with larger turbines in one line of orientation, and hence greater spacing between turbine locations. The total number of locations in this layout is 179 (160 turbines and 19 platforms (offshore accommodation and substations)), the border spacing is approximately 5.6 km and the internal spacing is varied.

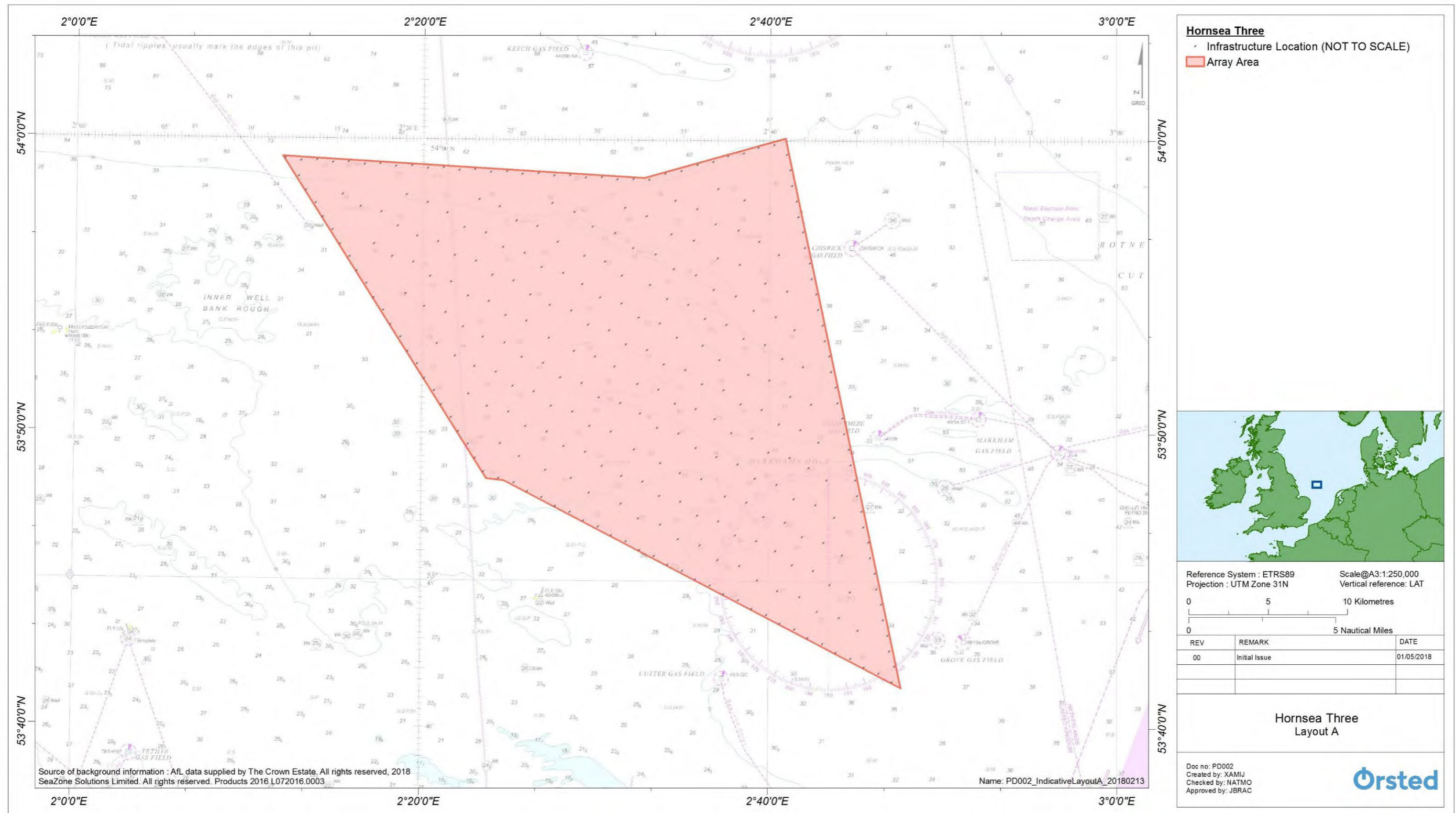


Figure 3.9: Indicative Layout A with 300 turbines and 19 platforms.

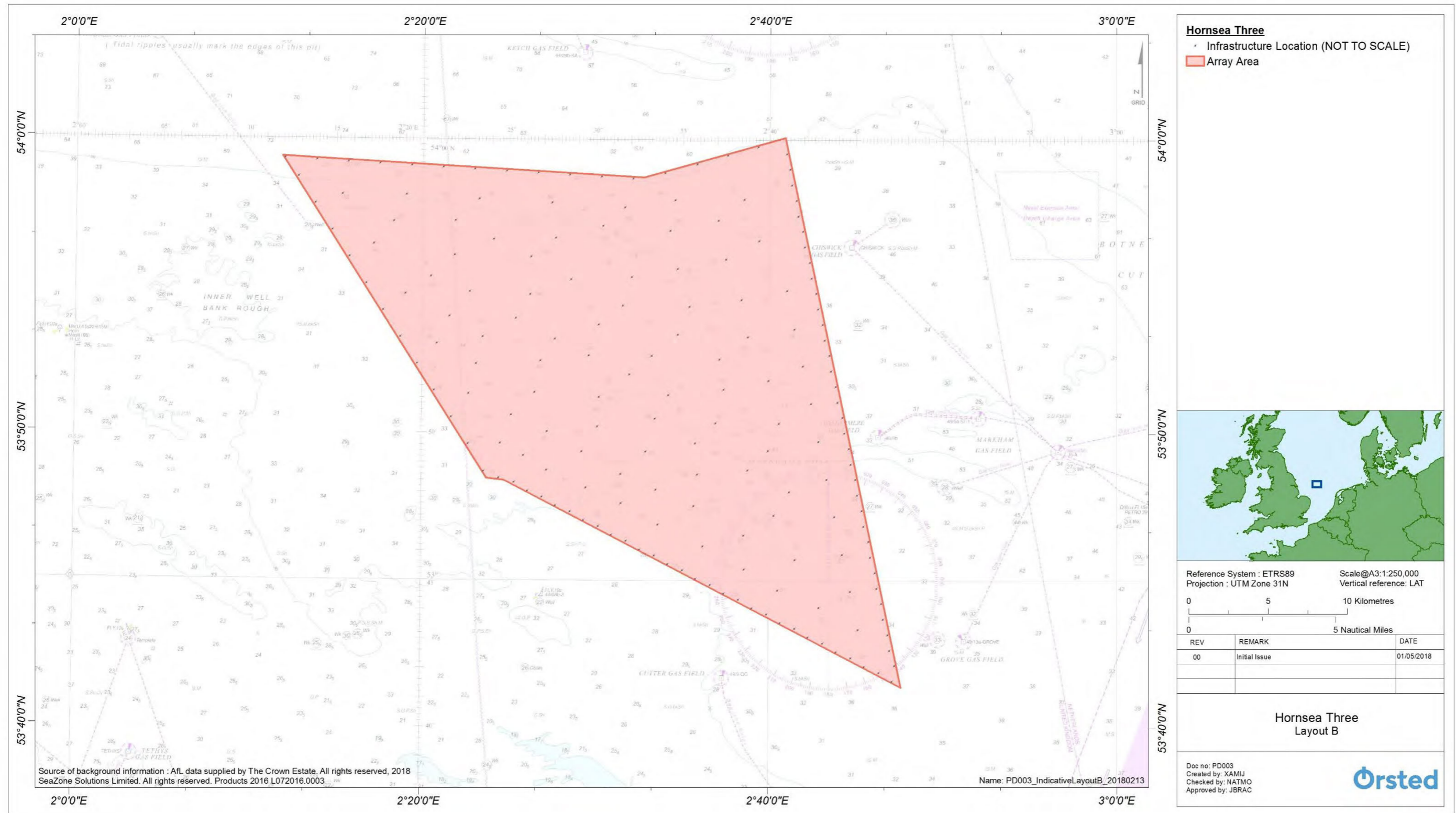


Figure 3.10: Indicative Layout B with 160 turbines and 19 platforms.

3.6.5 Foundations for turbines, offshore substations and offshore accommodation platforms

3.6.5.1 The turbines, offshore substation(s) and offshore accommodation platform(s) are attached to the seabed by foundation structures. There are several foundation types that are being considered for Hornsea Three. Hornsea Three requires flexibility in foundation choice to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design. The final selection will depend on factors including ground conditions, wave and tidal conditions, project economics and procurement approach. The range of foundation options to be used for turbines and each type of offshore substation can be seen in Table 3.9 below. As outlined in Table 3.9 below, the foundation types defined for turbines may also be used to support offshore substation structures or offshore accommodation platforms. There are also a range of foundation types that are only intended to be used for specific offshore substation types.

3.6.5.2 Each assessment within the Environmental Statement (volume 2, chapters 1 to 11 and volume 3, chapters 1 to 10) has considered the range of foundations options (including monopiles, suction bucket jacket foundations, piled jacket foundations, mono suction buckets and gravity base structures) and assessed the foundation type which presents the maximum design scenario for the relevant receptor(s).

3.6.5.3 The foundations will be fabricated offsite, stored at a suitable port facility and transported to site as needed (see paragraph 3.6.3.9 et seq.). Specialist vessels will be needed to transport and install foundations. A filter layer and/or scour protection layer (typically rock) may be needed on the seabed and will be installed before and/or after foundation installation (see paragraph 3.6.2.37 et seq.).

3.6.5.4 All floating foundation concepts proposed in the PEIR have been removed from the project envelope based on consultation responses received as part of Section 42 consultation on the PEIR. This will reduce impacts (from those presented in the PEIR) on a number of receptors including, but not limited to, those associated with the following chapters:

- Commercial Fisheries (volume 2, chapter 6: Commercial Fisheries); and
- Shipping and Navigation (volume 2, chapter 7: Shipping and Navigation).

3.6.5.5 The maximum design scenario for each of the foundation types in Table 3.9 are presented in Table 3.10 to Table 3.15 below.

3.6.5.6 Further details on the different foundation types are described in the following sections.

Table 3.9: Foundation options for turbines and offshore structures.

	Turbine	Offshore transformer substation	Offshore HVAC booster station ^a	Offshore HVDC converter substation/ Large offshore HVAC substation	Offshore accommodation platform
Maximum number of structures	300	12	4 ^a (6 subsea)	4 ^b	3
Monopile	Y	Y	Y	Y	Y
Mono suction bucket	Y	Y	Y	Y	Y
Piled jacket	Y	Y	Y	Y	Y
Suction bucket jacket	Y	Y	Y	Y	Y
Gravity base	Y	Y	Y	Y	Y
OSS suction bucket jacket	N	Y	Y	Y	Y
OSS piled jacket	N	Y	Y	Y	Y
Box-type gravity base	N	Y	Y	Y	N
Converter piled jacket	N	N	N	Y	N
Converter suction bucket jacket	N	N	N	Y	N
Pontoon GBS 1	N	N	N	Y	N
Pontoon GBS 2	N	N	N	Y	N
Table detailing maximum design parameters	Table 3.10	Table 3.11	Table 3.12 and Table 3.13	Table 3.14	Table 3.15
a	Offshore HVAC booster station(s) will be placed along the Hornsea Three offshore cable corridor as described in section 3.6.9 below.				
b	Offshore HVDC converter substation(s) are mutually exclusive with HVAC booster station(s) in a single transmission system. Therefore, these two figures should not be combined in the total number. The maximum number of structures within the Hornsea Three array area is therefore 319 (i.e. 300 turbines, three accommodation platforms, 12 offshore transformer substations and four offshore HVDC converter substations).				

Table 3.10: Maximum design parameters for turbine foundations.

Turbine foundations	Maximum design parameters
Total number of structures	300
Seabed area – structure (m ²)	435,660
Seabed area – scour protection (m ²)	1,187,522
Seabed area – total (m ²)	1,623,182
Spoil volume (m ³)	1,225,692
Gravel bed volume (m ³)	919,269
Scour protection volume (m ³)	2,375,044
Pile-structure grout volume (m ³)	28,953
Structure-seabed grout volume (m ³)	217,830

Table 3.11: Maximum design parameters for offshore transformer substation foundations.

Offshore transformer substation foundations	Maximum design parameters
Total number of structures	12
Seabed area – structure (m ²)	67,500
Seabed area – scour protection (m ²)	91,200
Seabed area – total (m ²)	158,700
Spoil volume (m ³)	735,000
Gravel bed volume (m ³)	551,250
Scour protection volume (m ³)	182,400
Pile-structure grout volume (m ³)	13,029
Structure-seabed grout volume (m ³)	33,750

Table 3.12: Maximum design parameters for surface offshore HVAC booster station foundations.

Surface offshore HVAC booster station foundations	Maximum design parameters
Total number of structures	4
Seabed area – structure (m ²)	22,500
Seabed area – scour protection (m ²)	30,400
Seabed area – total (m ²)	52,900
Spoil volume (m ³)	245,000
Gravel bed volume (m ³)	183,750
Scour protection volume (m ³)	60,800
Pile-structure grout volume (m ³)	4,343
Structure-seabed grout volume (m ³)	11,250

Table 3.13: Maximum design parameters for subsea offshore HVAC booster station foundations.

Subsea offshore HVAC booster station foundations	Maximum design parameters
Total number of structures	6
Seabed area – structure (m ²)	15,000
Seabed area – scour protection (m ²)	33,600
Seabed area – total (m ²)	48,600
Spoil volume (m ³)	11,310

Table 3.14: Maximum design parameters for offshore HVDC collector substation foundations.

Offshore HVDC collector substation foundations	Maximum design parameters
Total number of structures	4
Seabed area – structure (m ²)	71,400
Seabed area – scour protection (m ²)	67,858
Seabed area – total (m ²)	109,200
Spoil volume (m ³)	193,962
Gravel bed volume (m ³)	104,664
Scour protection volume (m ³)	108,800
Pile-structure grout volume (m ³)	10,830
Structure-seabed grout volume (m ³)	35,700

Table 3.15: Maximum design parameters for offshore accommodation platform foundations.

Offshore accommodation platform foundations	Maximum design parameters
Total number of structures	3
Seabed area – structure (m ²)	8,836
Seabed area – scour protection (m ²)	21,715
Seabed area – total (m ²)	28,628
Spoil volume (m ³)	63,335
Gravel bed volume (m ³)	13,151
Scour protection volume (m ³)	43,429
Pile-structure grout volume (m ³)	3,257
Structure-seabed grout volume (m ³)	6,185

Foundations for turbines, offshore substations and offshore accommodation platforms

Monopile foundations

Design

3.6.5.7 Monopile foundations typically consist of a single steel tubular section, consisting of a number of sections of rolled steel plate welded together. A transition piece is fitted over the monopile and secured via bolts or grout. The transition piece may include boat landing features, ladders, a crane, and other ancillary components as well as a flange for connection to the turbine tower (Figure 3.11). The transition piece is usually painted yellow and marked per relevant regulatory guidance and may be installed separately following the monopile installation. The maximum design dimensions of the monopile foundations can be seen in Table 3.16 below.

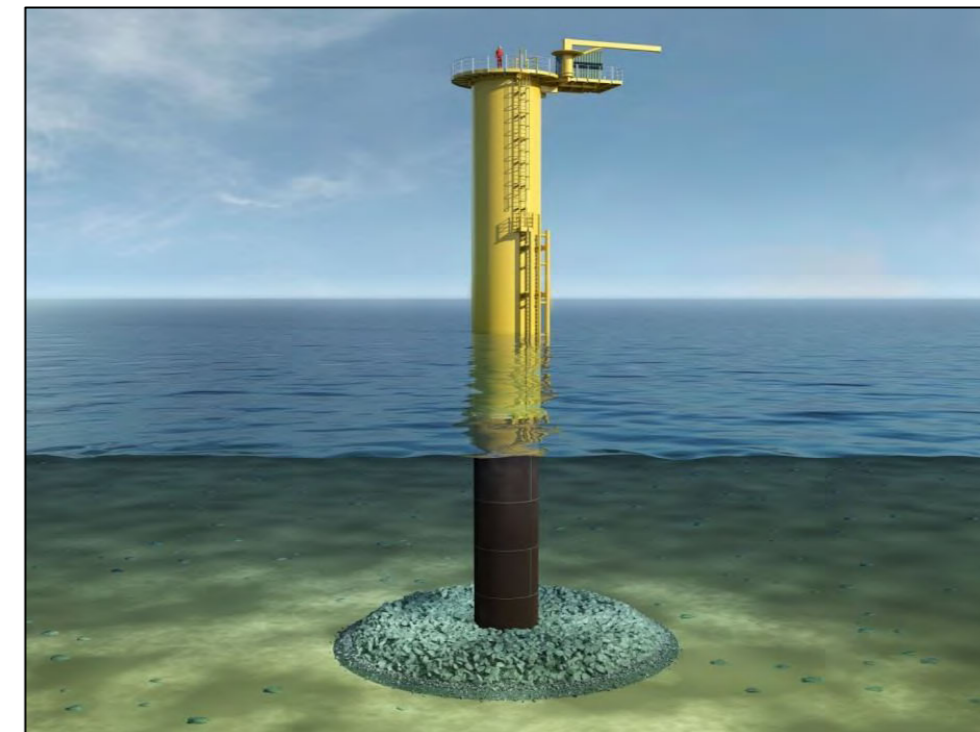


Figure 3.11: A monopile foundation and transition piece.

Table 3.16: Maximum design parameters for monopiles.

Parameter	Maximum design parameters
Diameter of monopile ^a (m)	15
Diameter of transition piece (m)	15
Typical embedment depth (below seabed) (m)	40
<p>a For largest proposed turbine (noting that for the maximum number of turbines, the largest maximum design monopile diameter will be smaller).</p>	

Installation

3.6.5.8 Monopiles and transition pieces will be transported to site either on the installation vessel (either JUV or Dynamic Positioning Vessel (DPV)), or on feeder barges, as described in paragraph 3.6.3.9 above. Monopiles can also be sealed and floated to site.

3.6.5.9 Once on site, the monopiles will be installed using the following process:

- Lift monopile into the pile gripper on the side of the installation vessel;
- Lift hammer onto monopile and drive monopile into seabed to required embedment depth;
- Lift hammer from monopile and remove pile gripper;
- Lift transition piece onto monopile; and
- Secure transition piece onto monopile using either grout or bolts.

3.6.5.10 The transition piece will either have a bolted or grouted connection to the monopile. The grout used is an inert cement mix that is pumped into a specially designed space between the transition piece and the monopile. The grout will be pumped either from the installation vessel or a support vessel. This process is carefully controlled and monitored to ensure minimal grout is lost to the surrounding environment. The bolted solution will use bolts to connect the transition piece to the monopile in a similar manner to that used to connect the turbine and the transition piece.

3.6.5.11 Up to four installation vessels may be used, with up to two piling and two drilling simultaneously. The details for the vessels and numbers of trips required are presented in Table 3.17 below. Monopile installation may take up to 30 months in total for turbines.

3.6.5.12 Seabed preparations for monopile installation are usually minimal. If preconstruction surveys show the presence of boulders or other seabed obstructions at foundation locations, these may be removed if the foundation cannot be re-sited to avoid the obstruction. Site preparation activities are discussed in more detail in section 3.6.2 above.

3.6.5.13 The maximum design parameters for monopile foundations are presented in Table 3.10 above.

Table 3.17: Vessel and helicopter requirements for monopile, piled jacket, suction bucket jacket and mono suction bucket installation.

Vessel type	Maximum number of vessels	Maximum number of return trips per vessel type
Installation vessels	4	300
Support vessels	16	1,200
Transport vessels (barges)	10	150
Transport vessels (tugs)	30	450
Helicopter support	N/A	600

Piling and drilling

3.6.5.14 The modelled (noise) piling scenario (see volume 4, annex 3.1: Subsea Noise Technical Report) for monopiles and jacket pin piles assumes a maximum four hour duration. Analysis of recent piling records at other Ørsted wind farms indicates that piling of monopiles typically averages two hours or less for installation (including the slow start procedure), with timings slightly longer at the beginning of the construction phase and then reducing as experience is gained. Piling at substations has usually taken a little longer, typically averaging three hours or less, with the longer times probably due to shorter runs and hence less opportunity for building up experience at the site. The number of positions where piling work exceeds four hours is typically a small percentage, around 5% or less; this exceedance will be due to breaks in the construction work caused by reasons such as particularly challenging ground conditions or break-down of equipment and therefore does not reflect an uninterrupted four hour start-finish hammer strike piling duration.

3.6.5.15 The maximum hammer energy for Hornsea Three is 5,000 kJ for monopiles. The rationale for using a maximum hammer energy of 5,000 kJ is to maximise the opportunity to successfully drive all piles. Although a maximum hammer energy of 5,000 kJ is considered as the maximum design scenario, the actual energy used when piling will be significantly lower for the majority of the time and the driving energy will be raised to 5,000 kJ only when absolutely necessary. To minimise fatigue loading on the monopiles, hammer energies are continuously set at the minimum required, which also reduces the likelihood of breakdown of the equipment, hence will typically start low (15% soft start of 750 kJ) and gradually increase to the maximum required installation energy during the piling of the final meters, which is typically significantly less than the maximum consented hammer energy.

3.6.5.16 After a review of construction logs and a preliminary analysis of ground conditions at the site, Hornsea Three currently expect the average hammer energy for monopiles across the entire construction programme to be less than 2,000 kJ (average hammer energy likely to be reached during piling) and the average maximum energy at each position (highest energy likely to be reached during piling events) to be on average less than 3,500 kJ.

3.6.5.17 The larger maximum hammer energy will not change this and indeed may allow these values to be reduced. Other reasons why larger hammer energies are required include the greater effectiveness at pile driving (due in part to the additional weight of the hammer) and greater reliability, since they are working far under their design rating for the majority of the time. Knowledge of the anticipated construction work will improve as additional geoscience survey campaigns are undertaken and corresponding design work is completed for Hornsea Three. A characteristic three hour monopile piling scenario with maximum durations for each energy level is provided in Table 3.18.

Table 3.18: Piling scenario for monopile installation using a maximum hammer energy of 5,000 kJ.

Hammer Energy	Piling Duration – Monopiles (minutes)
<750 kJ	0:45
750 – 1,500 kJ	0:45
1,500 – 2,000 kJ	0:30
2,000 – 2,500 kJ	0:20
2,500 – 3,000 kJ	0:10
3,000 – 3,500 kJ	0:10
3,500 – 4,000 kJ	0:10
4,000 – 4,500 kJ	0:05
4,500 – 5,000 kJ	0:05

3.6.5.18 If percussive piling installation is not possible due to the presence of rock or hard soils, the material inside the monopile may be drilled out before the monopile is driven to the required depth. This can either be done in advance of the driving or if the piling rate slows significantly during piling, known as refusal. If drilling is required, spoil arising from the drilling will be disposed of adjacent to the foundation location above the sea surface. Total wind farm spoil volume is given in Table 3.10 above.

3.6.5.19 It may also be possible that the piles are installed via another novel method such as vibropiling, where the pile is embedded via vibration rather than hammering or drilling. If any such methods were employed, it would be ensured that the noise emissions were within the envelope consented for hammering.

Piled jacket foundations

Design

3.6.5.20 Piled jacket foundations are formed of a steel lattice construction (comprising tubular steel members and welded joints) secured to the seabed by hollow steel pin piles attached to the jacket feet. The piles rely on the frictional and end bearing properties of the seabed for support. Unlike monopiles, there is no separate transition piece. The transition piece and ancillary structure is fabricated as an integrated part of the jacket. Pin piles will typically be narrower than monopiles.

3.6.5.21 The maximum design scenario for jacket foundations with pin piles is shown in Table 3.19 below.

Table 3.19: Maximum design parameters for jacket foundations with pin piles.

Parameter	Maximum design parameters
Number of legs per turbine	4
Separation of adjacent legs at seabed level (m)	40
Separation of adjacent legs at LAT (m)	25
Height of platform above LAT (m)	40
Leg diameter (m)	4.6
Pin pile diameter (m)	4
Embedment depth (below seabed) (m)	55
Hammer energy (kJ)	2,500

Installation

3.6.5.22 The installation of piled jackets is similar to that of monopiles, with the structures transported to site by installation vessels or barges and lowered onto the seabed by the installation vessel.

3.6.5.23 The pin piles can be installed either before or after the jacket is lowered to the seabed. If before, a piling template will be placed on the seabed to guide the pile locations. This is usually a welded steel structure. The piles will then be installed through the template, and the jacket affixed to the piles after it has been lowered into position, either welded or swaged. If piles are installed after the jacket is lowered to the seabed, the piles will be installed through the jacket feet at the seabed, or through the legs of the jacket from the top of the structure. As there is no separate transition piece, there is no requirement for installing an additional structure offshore.

3.6.5.24 The pin piles are driven, drilled or vibrated into the seabed, in a similar way to monopiles. However, as pin piles are smaller, the maximum hammer energy to be used would be 2,500 kJ. In accordance with the discussion on monopile installation in paragraphs 3.6.5.14 and 3.6.5.15, a review of construction logs and a preliminary analysis of ground conditions at the site, Hornsea Three currently expect the average hammer energy for pinpiles across the entire construction programme to be less than 1,250 kJ (average hammer energy likely to be reached during piling) and the maximum energy at each position (i.e. for the final few meters) to be on average less than 1,750 kJ (highest energy likely to be reached during piling events). There would be no more than two piles being driven simultaneously, and eight piles being drilled simultaneously across the Hornsea Three array area. The maximum duration for turbine foundation installation across the Hornsea Three array area would be 30 months.

3.6.5.25 The vessel movements for the installation would be as for monopile foundations, as described in Table 3.17 above.

3.6.5.26 The seabed preparation would be as for the monopile foundations (paragraph 3.6.5.13). The maximum design parameters for which are presented in Table 3.10.

Suction bucket jacket foundations

Design

3.6.5.27 Suction bucket jacket foundations are formed with a steel lattice construction (comprising tubular steel members and welded joints) fixed to the seabed by suction buckets installed below each leg of the jacket. The suction buckets are typically hollow steel cylinders, capped at the upper end, which are fitted in a horizontal position underneath the legs of the jacket structure. They do not require a hammer or drill for installation. Unlike monopiles, but similarly to piled jacket foundations, there is no separate transition piece. The transition piece and ancillary structure is fabricated as an integrated part of the jacket structure and is not installed separately offshore. An example of a suction bucket jacket is shown in Figure 3.12.

3.6.5.28 The maximum design parameters for jacket foundations with suction buckets are presented in Table 3.20.

Installation

3.6.5.29 Once at site, the jacket foundation will be lifted by the installation vessel using a crane, and lowered towards the seabed in a controlled manner (see Figure 3.12). When the steel caisson reaches the seabed, a pipe running up through the stem above each caisson will begin to suck water out of each bucket. The buckets are pressed down into the seabed by the resulting suction force. When the bucket has penetrated the seabed to the desired depth, the pump is turned off. A thin layer of grout is then injected under the bucket to fill the air gap and ensure contact between the soil within the bucket, and the top of the bucket itself. As there is no separate transition piece, there is no requirement for installing an additional structure offshore.

3.6.5.30 The vessel movements for the installation would be as for the monopile foundations, as described in Table 3.17.

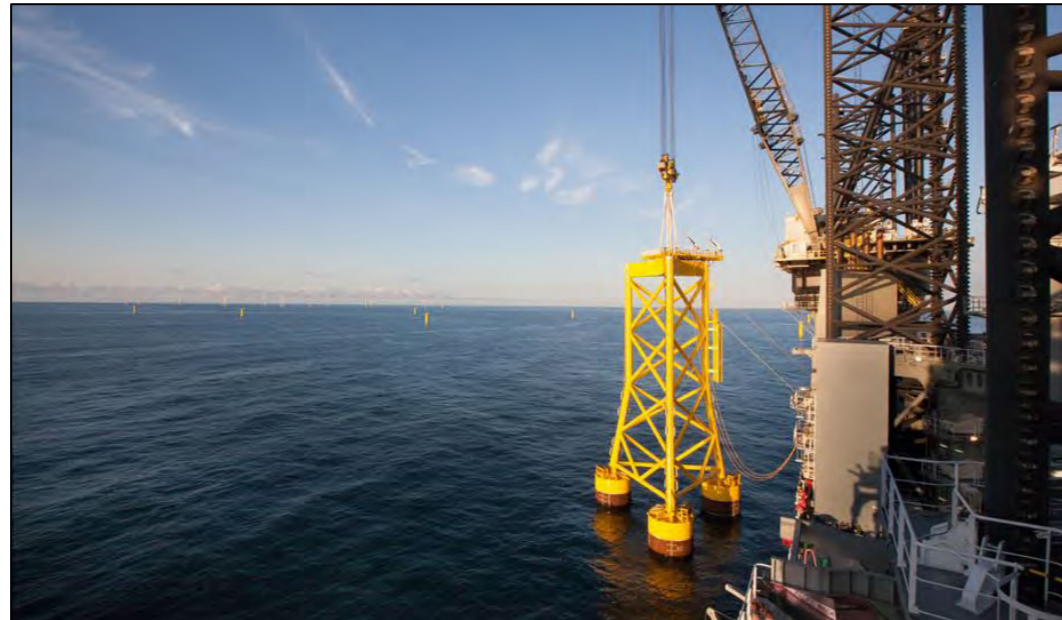


Figure 3.12: A jacket foundation with suction buckets being installed at the Borkum Riffgrund One offshore wind farm.

Table 3.20: Maximum design parameters for jacket foundations with suction buckets.

Parameter	Maximum design parameters
Number of legs per turbine	4
Suction bucket diameter (m)	20
Suction bucket penetration (m)	20
Suction bucket height above seabed (m)	5
Separation of adjacent legs at seabed level (m)	40
Separation of adjacent legs at LAT (m)	25
Height of platform above LAT (m)	40

3.6.5.31 As well as the boulder and obstruction removal that is described in the monopile section (paragraph 3.6.5.13), the suction bucket jackets may also require some seabed levelling, to ensure that all of the buckets for each structure can be placed at the same level, and that there is level ground beneath them to form a sealed chamber within the bucket once the foundation has been lowered to the seabed. The seabed levelling would likely be carried out by a dredging vessel using a suction hopper, and depositing the dredged material adjacent to the foundation location at site. Site preparation activities are described in section 3.6.2 above. The total Hornsea Three array area spoil requirements are presented in Table 3.10 to Table 3.15 above. A Dredging and Disposal Site Characterisation for the disposal of seabed preparation material is presented in volume 4, annex 3.2.

Mono suction bucket foundations

Design

3.6.5.32 A mono suction bucket consists of a single suction bucket supporting a single steel or concrete structure, which supports the wind turbine. As with the jacket structures and suction bucket foundations, this foundation type does not require a transition piece to be installed offshore. The transition piece and ancillary structure is fabricated as an integrated part of the jacket structure and is not installed separately offshore.

3.6.5.33 The maximum design parameters for mono suction bucket foundations are presented in Table 3.21 below.

Table 3.21: Maximum design parameters for mono suction bucket.

Parameter	Maximum design parameters
Suction bucket diameter (m)	40
Suction bucket penetration depth (m)	20
Suction bucket height above seabed (m)	10

Installation

3.6.5.34 The installation method is similar to that described for the suction bucket jackets in section 3.6.5.29 above, except only a single bucket needs to be installed in the seabed.

3.6.5.35 The vessel movements for the installation would be as for the monopile, as described in Table 3.17 above.

3.6.5.36 The seabed preparation would be as described for the suction bucket jacket. The total Hornsea Three array area spoil requirements are presented in Table 3.10 above.

Gravity base foundations

Design

3.6.5.37 Gravity base foundations are heavy steel, concrete, or steel and concrete structures, sometimes including additional ballast, that sit on the seabed to support the turbine tower (Figure 3.13). Gravity bases vary in shape, but are significantly wider at the base (at seabed level) to provide support and stability to the structure. They then generally taper to a smaller width at or below seabed level.

3.6.5.38 The maximum design parameters for gravity base foundations are presented in Table 3.22.

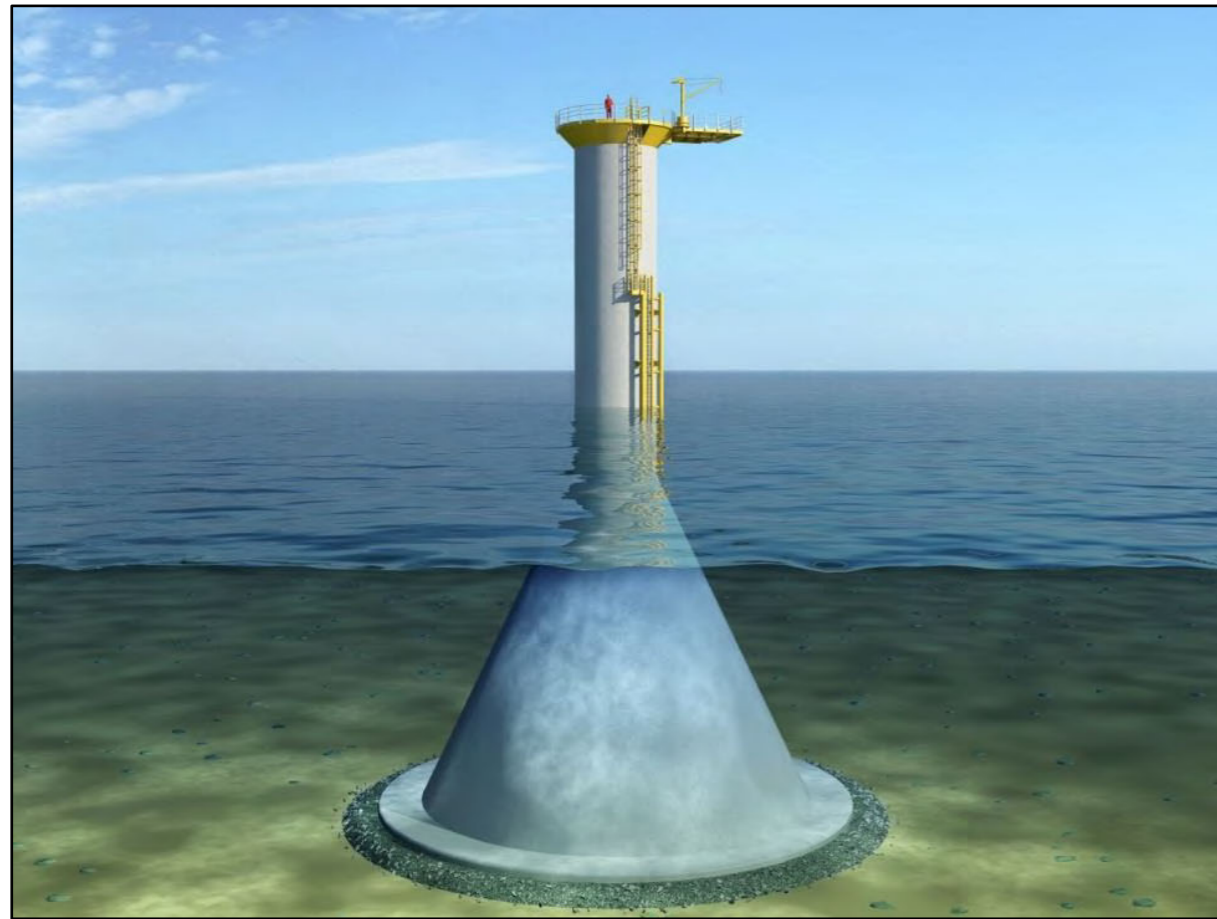


Figure 3.13: A gravity base foundation.

Table 3.22: Maximum design parameters for gravity base foundations.

Parameter	Maximum design parameters
External diameter at seabed (excluding scour protection) (m)	53
External diameter at LAT (m)	15
Seabed preparation diameter (m)	61
Scour protection diameter (m)	93

Installation

3.6.5.39 A gravity base does not require piling or drilling to remain in place. They can either be brought to site on barges or installation vessels as for the other foundation types, or alternatively they can be floated to site. This would be done by designing the structures to be buoyant, and towing them to site using tugs and support vessels. The foundations would then be lowered to the seabed in a controlled manner either by pumping in water, or installation of ballast (or both).

3.6.5.40 The vessel requirements for gravity base foundations are presented in Table 3.23 below.

Table 3.23: Vessel requirements for gravity base foundations for turbines if floated to site.

Vessel type	Maximum number of vessels	Maximum number of return trips per vessel type
Installation Vessels	3	300
Support Vessels	13	1,500
Dredging Vessels	12	1,200
Tug Vessels	4	1,200

3.6.5.41 The seabed preparation for gravity base foundations are as described for the suction bucket jacket foundations, and using the method described in paragraph 3.6.5.31. The total Hornsea Three array area spoil requirements are presented in Table 3.10.

Scour Protection

3.6.5.42 The preferred scour protection solution may comprise a rock armour layer resting on a filter layer of smaller graded rocks. **The filter layer can either be installed before the foundation is installed ('pre-installed') or afterwards ('post-installed').** Alternatively, by using heavier rock material with a wider gradation, it is possible to avoid using a filter layer and pre-install a single layer of scour protection.

3.6.5.43 The amount of scour protection required will vary for the different foundation types being considered for Hornsea Three. Flexibility in scour protection choice (rock armouring and use of mattresses) is required to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design. The final choice and detailed design of a scour protection solution for the wind farm will be made after detailed design of the foundation structure, taking into account a range of aspects including geotechnical data, meteorological and oceanographic data, water depth, foundation type, maintenance strategy and cost.

3.6.5.44 The maximum diameter of the rocks used would be 1 m and the maximum thickness of scour protection layer would be 2 m. The total Hornsea Three volume of scour protection material is presented in Table 3.10 above.

Foundation types for offshore substations and offshore accommodation platforms

3.6.5.45 Although all the foundation options available for turbines may also be used for OSS and OAP, there are some foundation designs that could be used for OSS and OAP but will not be used to support turbines. The descriptions of these foundations are outlined below.

OSS piled jacket

3.6.5.46 This foundation type is a larger variant of the piled jacket option to be used for turbines as described in section 3.6.5.20. These foundations may also require the use of mud-mats, which are flat plates attached to the bottom of the jacket legs to support the foundation structure before piles are installed (if piles are installed after the jacket). The parameters for the OSS piled jacket foundation can be seen in Table 3.24 below. All other parameters are as described in section 3.6.5.20.

Table 3.24: Maximum design parameters for OSS piled jacket foundations.

Parameter	Maximum design parameters
Number of legs per jacket	6
Piles per leg	4
Separation of adjacent legs at seabed level (m)	70
Separation of adjacent legs at LAT (m)	70
Height of platform above LAT (m)	40
Leg diameter (m)	5
Pin pile diameter (m)	4
Pile height above seabed (m)	20
Mud-mats length and width [m]	10
Embedment depth (below seabed) (m)	70
Hammer energy (kJ)	2,500

OSS suction bucket jacket

3.6.5.47 This foundation type is a larger variant of the suction bucket jacket option to be used for turbines, as described in section 3.6.5.27 above. The parameters for the OSS suction bucket jacket foundation are presented in Table 3.25 below. All other parameters are as described in section 3.6.5.27 above.

Table 3.25: Maximum design parameters for OSS suction bucket jacket foundations.

Parameter	Maximum design parameters
Number of legs per platform	6
Suction bucket diameter (m)	25
Suction bucket penetration (m)	25
Separation of adjacent legs at seabed level (m)	70
Separation of adjacent legs at sea surface (m)	70
Height of platform above LAT (m)	40

Box type gravity base

3.6.5.48 This foundation type is a variant of the gravity base foundations, as described in section 3.6.5.37 above, however rather than having a circular base to support a single tower, this type of foundation has a square base that supports the steel or concrete supporting structure for the substation topsides. The parameters for the box type gravity base foundation are presented in Table 3.26 below. All other parameters are the same as for the gravity base as described in section 3.6.5.37 above. This foundation type will not be used for offshore accommodation platforms.

Table 3.26: Maximum design parameters for box type gravity base foundations.

Parameter	Maximum design parameters
Length and width at seabed level (m)	75
Length and width at LAT (m)	75
Seabed preparation buffer around base (m)	50
Seabed preparation buffer below base (m)	-1
Length & Width of seabed preparation area (m)	175

Foundation types for offshore HVDC converter stations.

3.6.5.49 Although all the foundation options available for turbines, offshore substations and offshore accommodation platforms may also be used for offshore HVDC converter substations, there are some foundation designs that could be used for offshore HVDC converter substations, but are not intended to be used for supporting other offshore infrastructure. The descriptions of these foundations are outlined below.

Converter piled jacket

3.6.5.50 This foundation type is a larger variant of the piled jacket option to be used for turbines, as described in section 3.6.5.20 above. The offshore HVDC converter stations could each be supported by four jacket structures, or a single larger jacket. The parameters for the converter piled jacket are presented in Table 3.27 below. All other parameters are as described in section 3.6.5.20 above.

Table 3.27: Maximum design parameters for converter piled jacket foundations.

Parameter	Maximum design parameters
Number of jackets per platform	4
Number of legs per platform	18
Piles per leg	4
Separation of adjacent legs at seabed level (m)	100
Separation of adjacent legs at LAT (m)	100
Pin pile diameter (m)	3.5
Pile penetration (m)	70
Mud-mats length and width (m)	20
Hammer energy (kJ)	2,500

Converter suction bucket jacket

3.6.5.51 This foundation type is a larger variant of the suction bucket jacket option to be used for turbines, as described in section 3.6.5.27 above. The parameters for the converter suction bucket jacket are presented in Table 3.28 below. All other parameters are as described in section 3.6.5.27 above.

Table 3.28: Maximum design parameters for converter suction bucket jacket foundations.

Parameter	Maximum design parameters
Number of jackets per platform	4
Number of legs (per jacket)	6
Suction bucket diameter (m)	20
Suction bucket penetration (m)	30

Pontoon gravity base – type 1

3.6.5.52 This foundation type is a variant of the gravity base foundation, as described in section 3.6.5.37 above, however rather than having a circular base to support a single tower, this type of foundation has up to three rectangular pontoons that support the steel or concrete supporting structure for the substation topside. The parameters for the pontoon gravity base – type 1 are presented in Table 3.29 below and an example of this design is shown in Figure 3.14. All other parameters are the same as for the gravity base foundations as described in section 3.6.5.37 above.

Table 3.29: Maximum design parameters for pontoon gravity base – type 1 foundations.

Parameter	Maximum design parameters
Number of pontoons per platform	3
Pontoon length (m)	170
Pontoon width (m)	35
Pontoon spacing (m)	36
Pontoon base width (m)	90

Pontoon gravity base – type 2

3.6.5.53 This foundation type is a variant of the gravity base foundations, as described in section 3.6.5.37 above, however rather than having a circular base to support a single tower, this type of foundation has a pontoon, arranged in a rectangle around an open centre, that supports the steel or concrete supporting structure for the substation topside. The parameters for the pontoon gravity base - type 2 are presented in Table 3.30 below. All other parameters are the same as for the gravity base foundations as described in section 3.6.5.37 above.

Scour protection for foundations

3.6.5.54 Scour protection is designed to prevent foundation structures for turbines, offshore substations and offshore accommodation platforms, being undermined by hydrodynamic and sedimentary processes, resulting in seabed erosion and subsequent scour hole formation. The shape of the foundation structure is an important parameter influencing the potential depth of scour hole formation. Scour around foundations is typically mitigated by the use of scour protection measures. Several types of scour protection exist, including mattress protection, sand bags, stone bags and artificial seaweeds. However, the placement of large quantities of crushed rock around the base of the foundation structure is the most frequently used solution ('rock placement').

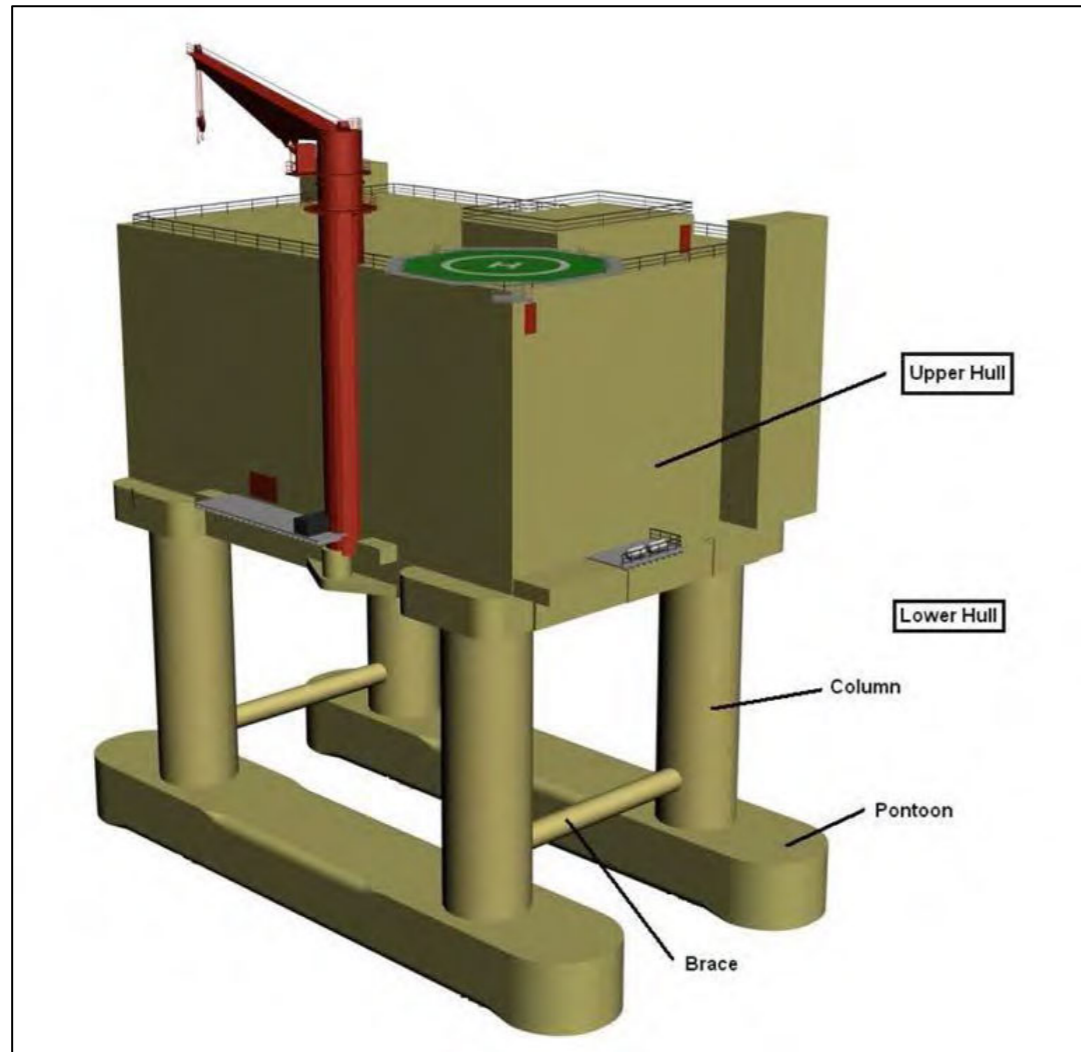


Figure 3.14: An example of a converter substation design supported by a pontoon gravity base – type 1¹ foundation.

Table 3.30: Maximum design parameters for pontoon gravity base – type 2 foundations.

Parameter	Maximum design parameters
Number of pontoons per platform	1
Pontoon length (m)	120
Pontoon width (m)	35

3.6.6 Array cables

3.6.6.1 Cables carrying the electrical current produced by the turbines will link the turbines to an offshore transformer substation or offshore HVDC converter station. A small number of turbines will typically be **grouped together on the same cable 'string' connecting those turbines to the substation, and multiple cable 'strings' will connect back to each offshore substation.**

3.6.6.2 It is likely the array cable system will use HVAC technology, but it is also possible that the system will consist of an alternative option such as a HVDC or low frequency HVAC array cable system.

Design

3.6.6.3 The array cables will consist of a number of conductor cores, usually made from copper or aluminium surrounded by layers of insulating material, as well as material to armour the cable for protection from external damage.

3.6.6.4 The maximum design parameters for array cables are presented in Table 3.31 below.

Table 3.31: Maximum design parameters for array cables.

Parameter	Maximum design parameters
Cable diameter (mm)	200
Total length of cable (km)	830
Voltage (kV)	170

Installation

3.6.6.5 The cables will be buried below the seabed wherever possible. The installation method and target burial depth will be defined post consent based on a cable burial risk assessment (CBRA) (or similar) taking into account ground conditions as well as external aggressors to the cable such as trawling and vessel anchors. This depth will likely vary across the Hornsea Three array area. Possible installation methods include jetting, vertical injection, cutting and ploughing whereby the seabed is opened and the cable laid within the trench simultaneously using a tool towed behind the installation vessel. Alternatively, a number of these operations such as jetting, cutting or Mass Flow Excavation (MFE) may occur post cable lay. Figure 3.15 shows an array cable being installed.

¹ Note that this example has two pontoons, rather than the maximum three.



Figure 3.15: Array cable installation at the Gode Wind offshore wind farm.

- 3.6.6.6** It may also be necessary to install the cable by pre-trenching or rock cutting whereby a trench is opened in one operation and then the cable laid subsequently from another vessel. Hornsea Three may also need to dredge the cable route prior to installation in order to level sandwaves that may hinder installation. This is discussed in section 3.6.2 above. Where pre-trenching or rock cutting is employed, and there is a gap between this activity and cable installation, in some areas the trench may partially collapse, or infill. In these cases pre-sweeping may have to be performed to clear the trench prior to installation. Pre-sweeping typically comprises the use of a jetting tool, targeted to remove the material that has partially infilled the trench.
- 3.6.6.7** If the array cables must cross third party infrastructure, such as existing cables, both the third-party asset and the installed cable must be protected. This protection would usually consist of a rock berm on the existing cable (separation layer), as well as a second rock berm on the cable installed for Hornsea Three (protection layer). The detailed design of the crossing would be decided in a crossing agreement developed by both parties.
- 3.6.6.8** Array cables will need to be made secure where the route crosses obstacles such as exposed bedrock, pre-existing cables or pipelines that mean the cable cannot be buried. This is typically achieved through some form of armouring (rock, mattress or proprietary separation layer) to maintain the integrity of the cable. Up to 10% of the total array cable length may require protection due to ground conditions (this excludes cable protection due to cable crossings). Up to 10% of the array cable within the **Markham's** Traingle rMCZ may include cable protection.

- 3.6.6.9** Cable protection will be required at cable crossings, as well as in parts of the array area where cable burial is not possible. Cable protection methods include rock placement (rock protection), concrete mattresses, fronded mattresses, rock bags, and seabed spacers among others. These are described below.

Rock Placement

- 3.6.6.10** Rocks of different grade sizes are placed, from a fall pipe vessel over the cable. Initially smaller stones are placed over the cable as a covering layer. This provides protection from any impact from larger grade size rocks, which are then placed on top of this smaller scale level.
- 3.6.6.11** This rock grading generally has mean rock size in the range of 90 to 125 mm (1-3 kg) and maximum rock up to 250 mm (25 kg). The rocks generally form a trapezium shape, up to approximately 1 m above the seabed with a 3:1 gradient. The cross section may vary dependent on expected scour. The length of the berm is dependent on the length of cable which is either unburied or has not achieved target depth. The trapezium shape is designed to provide protection from both direct anchor strikes and anchor dragging. Should this protection method be used for crossings, a separation layer may first be laid on the seabed. This layer is approximately 30 cm deep with a rectangular or oval plan view.

- 3.6.6.12** Concrete mattresses will not be used as a method of cable protection in the environmentally designated sites except where required for crossing existing assets.

Mattress Placement

- 3.6.6.13** Mattresses generally have dimensions of 6 m by 3 m by 0.3 m. They are formed by interweaving a number of concrete blocks with rope and wire. They are lowered to the seabed on a frame. Once positioning over the cable has been confirmed, the frame release mechanism is triggered and the mattress is deployed. This single mattress placement will be repeated over the length of cable which is either unburied or has not achieved target depth. Mattresses provide protection from direct anchor strikes but are less capable of dealing with anchor drag. Should this protection method be used for crossings, a mattress separation layer may first be laid on the seabed.

Froned Mattresses Placement

- 3.6.6.14** Frond mattresses are installed following the same procedure as general mattress placement operations. The fronds floating in the water column, however, can impede the correct placement of additional mattresses. The fronds are designed with the aim to form protective, localised sand berms.

Rock Bags

- 3.6.6.15** Rock bags consist of various sized rocks constrained within a rope or wire netting containment. They are placed via a crane and deployed to the seabed in the correct position. Rock bags are more suited for cable stability or trench/scour related issues.

Seabed Spacers

3.6.6.16 Propriety separation consists of plastic, or metal, half shell sections that are bolted together forming a circular protection barrier around the cable. Additionally rock may be placed on top to provide protection from anchors or fishing gear. As they are placed onto the cable during installation, they cannot be used for remedial protection. Thus, their only use is for crossings or areas, such as rock, where it is known that burial will not be achieved.

3.6.6.17 The maximum design parameters for array cable installation are presented in Table 3.32 below.

Table 3.32: Maximum design parameters for array cable installation.

Parameter	Maximum design parameters
Installation methodology	Trenching, dredging, jetting, ploughing, mass flow excavation, vertical injection, rock cutting
Burial depth	Typically 1 to 2 m. Dependent on CBRA ^a
Width of seabed affected by installation (m)	15
Total seabed disturbed (km ²)	12.5
Seabed disturbance (m ²)	12,450,000
Burial spoil: ploughing/mass flow excavation (m ³)	4,980,000
Duration: per array link (days)	3
Duration: total (months)	30
a	Typically the cable will be buried between 1 to 2 m, but in some areas could be buried up to 3 m. A Cable Burial Risk Assessment (CBRA) will inform cable burial depth, dependent on ground conditions as well as external risks. This assessment will be undertaken post-consent.

3.6.6.18 Table 3.33 shows the details for the rock placement required for array cables and Table 3.34 shows the envelope for vessel movements associated with array cable installation.

Table 3.33: Maximum design parameters for array cable installation – rock placement.

Parameter	Maximum design parameters
Height of rock berm (m)	2
Width of rock berm (m)	7
Percentage of route requiring protection	10
Replenishment during operations (% of construction total)	25

Parameter	Maximum design parameters
Cable rock protection: maximum rock size (m)	1, 0.25 in the Cromer Shoal Chalk Beds MCZ
Rock protection area (m ²)	581,000
Rock protection volume (m ³)	830,000
Number of crossings (estimate) ^a	35
Cable/pipe crossings: total impacted area (m ²) ^a	87,500
Cable/pipe crossings: pre-lay rock berm volume (m ³) ^a	21,875
Cable/pipe crossings: post-lay rock berm volume (m ³) ^a	70,000
a	Crossings include crossings for interconnector cables.

Table 3.34: Maximum design parameters for array cable installation vessel and helicopter requirements.

Parameter	Maximum design parameters
Main laying vessels	3
Main burial vessels	3
Support vessels: crew boats or SOVs	4
Support vessels: service vessel for pre-rigging of towers	2
Support vessels: diver vessels	2
Support vessels: vessels for PLGR	2
Support vessels: dredging vessels	2
Main laying vessels (return trips)	315
Main burial vessels (return trips)	315
Support vessels (return trips)	1,890
Helicopter support – construction (return trips)	600

3.6.7 Offshore accommodation platforms

3.6.7.1 Hornsea Three may construct up to three offshore accommodation platforms to allow up to 150 operations staff to be housed at the Hornsea Three array area for a number of weeks at a time, and to allow spares and tools to be stored at the Hornsea Three array area. This aim being to reduce trips to the Hornsea Three array area and time spent in transit, in order to decrease down time for faults and repairs. The offshore accommodation platforms would be accessed by vessel and/or helicopter, and may have associated captive vessels to access the turbines and substations. An example of an offshore accommodation platform can be seen in Figure 3.16 below.



Figure 3.16: Offshore accommodation platform (right) at the Horns Rev 2 offshore wind farm, sited next to an offshore substation (left)².

3.6.7.2 Hornsea Three requires flexibility in location and foundation choice to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design, however the accommodation platforms will be located within the Hornsea Three array area.

3.6.7.3 Offshore accommodation platforms comprise of a platform with one or more decks, and helicopter platform, attached to the seabed by means of a foundation, containing accommodation, storage, workshop and logistic facilities for operating and maintaining the wind turbine generators and housing auxiliary equipment and facilities for operating, maintaining, controlling the substation and to access the substation by vessels and helicopters.

Design

3.6.7.4 The maximum design parameters for offshore accommodation platforms are presented in Table 3.35 and Table 3.36 below. The offshore accommodation platforms may also be co-sited with offshore substations, including bridge access (bridge link) between the two platforms. The offshore accommodation platforms would use the same substructure and foundation concepts as the turbines and offshore substations (excluding box type gravity base foundations) as described in section 3.6.5 above.

Table 3.35: Maximum design parameters for offshore accommodation platforms.

Parameter	Maximum design parameters
Number	3
Length and width (m)	60
Main structure height above LAT (m)	60
Structure height max above LAT (m)	64
Maximum bridge link length (m)	100
Foundation type	As for turbines or offshore substations (excluding box type gravity base).
Installation	As for offshore substations in section 3.6.9

Table 3.36: Maximum design parameters for offshore accommodation platforms – chemicals.

Parameter	Maximum design parameters
Chemicals: coolant (per platform) (l)	10,000
Chemicals: hydraulic oil (per platform) (l)	10,000
Chemicals: lubricates (per platform) (kg)	3,500
Chemicals: heli fuel (across wind farm) (l)	255,000
Chemicals: vessel fuel (per platform) (l)	210,000

Installation

3.6.7.5 The installation procedure would be as described for the offshore transformer substations in paragraph 3.6.9.12 above.

² Note - the offshore accommodation platform is supported by a monopile foundation, and the offshore substation by a jacket foundation.

3.6.8 Transmission system

3.6.8.1 The wind farm transmission system is used to transport the power produced at the turbines and delivered by the array cables, to the UK National Grid. The system transforms the Medium Voltage (MV) power produced at the turbines to HV at the offshore transformer substations (located in the Hornsea Three array area), and transports this via export cables and a number of other offshore and onshore components (see paragraph 3.6.8.4 below). The transmission system is usually designed, paid for and constructed by the wind farm developer (Ørsted in the case of Hornsea Three), but must be purchased by an Offshore Transmission Operator (OFTO) after the wind farm is constructed in a transaction overseen by the Office of Gas and Electricity Markets (Ofgem). It is also possible that the transmission asset may be designed, procured and installed by the OFTO, however the design and installation parameters would still be as consented through this application.

Project capacity

3.6.8.2 Hornsea Three will have a capacity of approximately 2.4 GW. The total capacity of the turbines themselves may exceed 2.4 GW in order to compensate for electrical losses, as well as for turbine shut down for maintenance. However, the total number and dimensions of turbines (as well as the other maximum design parameters presented within this chapter) would not exceed that stated within this chapter. Hornsea Three may be built in one or two phases (see section 3.8 below for details). The phases may be constructed either separately or together and may be the same or different in capacity (see section 3.8 below for further details).

HVAC/HVDC transmission systems

3.6.8.3 There are a range of transmission system designs that can be used to transport the power from the Hornsea Three array area to the UK National Grid. These fall under two primary transmission types defined by how the current is delivered to the export cables; HVAC or HVDC. Both transmission types have a range of relative benefits and drawbacks. Offshore wind farms have traditionally used HVAC connections; however, HVDC connections are becoming more technically and/or economically viable in the context of far from shore projects and are used on a number of projects in Germany. Hornsea Three requires flexibility in transmission system choice to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design, and will make a decision on which transmission type to use during the detailed design phase (post consent).

3.6.8.4 An overview of the differences between the component requirements of the two technologies are outlined in Table 3.37 below.

Table 3.37: Infrastructure required for High Voltage Alternating Current (HVAC) and High Voltage Direct Current (HVDC) systems.

Component	HVAC	HVDC	Comment
Offshore transformer substation	Y	M	HVDC: may be combined with converter substation
Offshore interconnector cable	M	M	Interconnector cables may be required between offshore substations.
Offshore HVDC converter substation	N	Y	-
Offshore export cable	Y	Y	-
Offshore HVAC booster station(s)	M	N	HVAC: onshore and/or offshore HVAC booster station required.
Onshore HVAC booster station	M	N	
Onshore export cable	Y	Y	-
Onshore HVDC converter/HVAC substation	Y	Y	HVDC systems require larger onshore converter substations for conversion to HVAC.
Grid connection export cable	Y	Y	-
<i>Table Key</i>	<i>Required (Y)</i>	<i>May be required (M)</i>	<i>Not required (N)</i>

Circuit description

3.6.8.5 A circuit is an electrical system that allows the flow of electrons from one location to another. Typical HVAC transmission systems are three phase designs and require three conductors per electrical circuit to transport the power. Offshore these three conductors are usually combined into a single cable. Onshore these three conductors are usually housed within one cable per conductor (i.e. three cables per circuit) (Table 3.38).

Table 3.38: Cables required per circuit.³

	HVAC	HVDC
Offshore cables/circuit	1	2 ^a
Onshore cables/circuit	3	2
^a Two HVDC offshore cables may be bundled together and installed simultaneously.		

3.6.8.6 HVDC transmission systems are typically symmetrical monopoles, but they may also be Bi-Pole designs and therefore require up to two conductors per circuit to transport the power. Offshore, these are generally housed in separate cables but these cables may be installed together. Onshore these conductors are housed in separate cables (Table 3.38).

³ Irrespective of the electrical system chosen (AC or DC) the total number of export cables will not exceed six offshore and 18 onshore.

3.6.9 Offshore substations

3.6.9.1 Offshore substations are offshore structures housing electrical equipment to provide a range of functions, such as changing the voltage (transformer substations), current type (converter substations) or power factor of the power (offshore HVAC booster stations). Each of the different offshore substation types are detailed below. All offshore substations will be marked, as with the turbines, for aviation and navigation purposes (see paragraph 3.6.9.29 below). The exact substation locations will be determined during the design phase (typically post consent), taking account of ground conditions and the most efficient cable routing amongst other considerations. Offshore substations will not be manned but once functional will be subject to periodic operational and maintenance visits by staff by helicopter, by vessel or from a nearby accommodation platform.

3.6.9.2 Hornsea Three requires flexibility in location and foundation choice of offshore transformer substation (see 3.6.5 above) to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design.

3.6.9.3 A description of the offshore substations is provided below.

Offshore transformer substations

3.6.9.4 Offshore transformer substations are required in HVAC transmission systems and may be required in HVDC transmission systems, dependent on the system design.

3.6.9.5 These will comprise a platform with one or more decks, and helicopter platform, attached to the seabed by means of a foundation, containing equipment required to switch and transform electricity generated at the wind turbine generators to a higher voltage and to provide reactive power compensation. They may also house auxiliary equipment and facilities for operating, maintaining, controlling the substation and to access the substation by vessels and helicopters. Possible housing accommodation, storage, workshop and logistic facilities for operating and maintaining the wind turbine generators may also be included.

3.6.9.6 One or more offshore transformer substations will collect the electricity generated by the operational turbines via the array cables. The voltage will be "stepped up" by transformers on the substation before transmission to the onshore HVDC converter/HVAC substation by export cables; this will be via the offshore HVDC converter substation in the case of the HVDC transmission option, or the offshore and/or onshore HVAC booster station(s) in the case of the HVAC transmission option.

3.6.9.7 Up to 12 separate offshore transformer substations are required. All offshore transformer substations will be located in the Hornsea Three array area.

Design

3.6.9.8 The HV equipment on the offshore transformer substations is expected to be rated between 220 kV and 400 kV. The substation unit is pre-fabricated in the form of a multi-layered cube and will be mounted on a foundation (Figure 3.17) some distance above the sea surface.



Figure 3.17: Offshore substations at Gode Wind offshore wind farm.

3.6.9.9 For some HVDC transmission system designs, the equipment required in the offshore transformer substation will be incorporated into the offshore HVDC converter substation. It may also be beneficial to site multiple differing substations, or substations and offshore accommodation platforms, next to each other so that access can be gained from one to the other. In this case a bridge link may be constructed at deck level, with a length of up to 100 m.

3.6.9.10 The last turbines in a string, normally electrically connected to a substation, might host some transmission equipment which would otherwise be placed at the substations. This equipment would be accessible without entering the wind turbine structure.

3.6.9.11 The maximum design parameters for offshore transformer substations are presented in Table 3.39 below and a schematic of an offshore transformer substation is presented in Figure 3.18.

Table 3.39: Maximum design parameters for offshore transformer substations.

Parameter	Maximum design parameters
Number of offshore transformer substations	12
Topside – main structure length and width (m)	90
Topside – ancillary structure length and width (m)	100
Topside – height (excluding helideck or lightning protection) (LAT) (m)	70

Parameter	Maximum design parameters
Height of lightning protection & ancillary structures (LAT) (m)	90
Topside - area (m ²)	8,100
Topside (including ancillaries) area (m ²)	10,000
Transformer oil - per transformer (per 200 MW capacity) (kg)	200,000
Diesel Fuel - per substation (l)	50,000
SF6 – per substation (kg)	1,500
Batteries (lead acid gel) – per substation (kg)	6,000

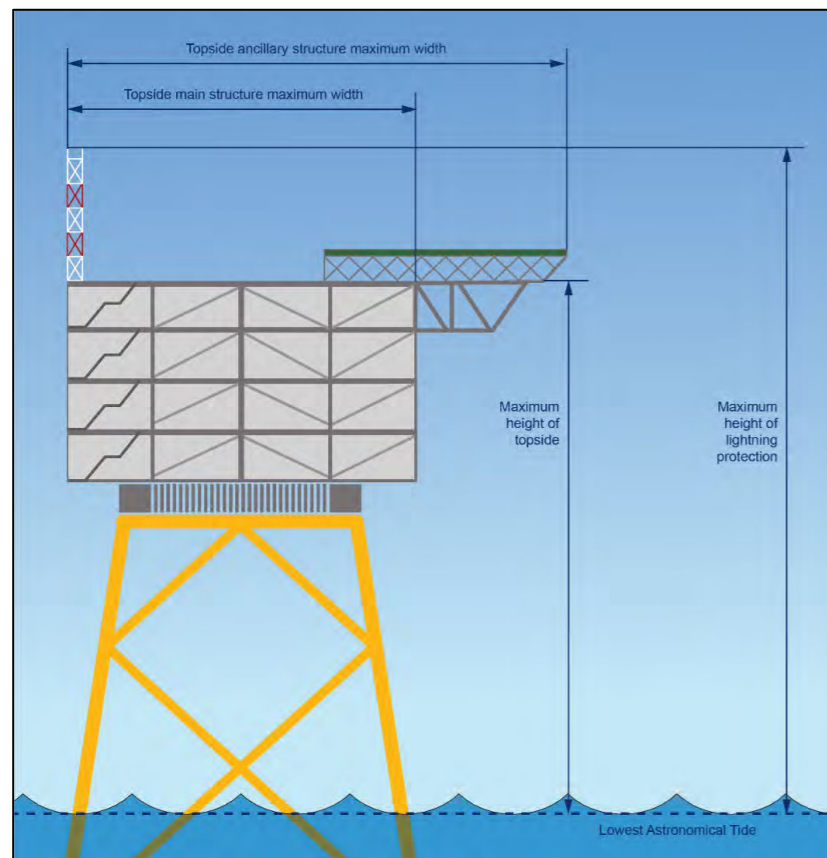


Figure 3.18: Schematic of an offshore transformer substation.

Installation

3.6.9.12 Offshore transformer substations are generally installed in two phases, the first phase will be to install the foundation for the structure using an installation vessel as described in section 3.6.5 above, secondly an installation vessel (the same as or different from the one installing the foundation) will be used to lift the topside from a transport vessel/barge, onto the pre-installed foundation structure. The foundation and topside may be transported on the same transport vessel/barge, or separately. The foundation may also be transported by the installation vessel. The vessel requirements for this process are presented in Table 3.40 below. These values cover all offshore substations and accommodation platforms, not just offshore transformer substations.

Table 3.40: Maximum design parameters for offshore substation and accommodation platform installation.

Parameter	Maximum design parameters
Primary installation vessels	2
Support vessels	12
Transport vessels/barges	4
Duration (per substation) (months)	2
Installation vessels (all offshore substations and accommodation platforms) (return trips)	38
Support vessels (all offshore substations and accommodation platforms) (return trips)	228
Transport vessels (all offshore substations and accommodation platforms) (return trips)	38
Helicopter support – construction (all offshore substations and accommodation platforms)	532

Offshore HVDC converter substations

3.6.9.13 Offshore HVDC converter substations are required in HVDC transmission systems only; they are not required in HVAC transmission systems. Offshore HVDC converter substations convert the three-phase AC power generated at the turbines into DC power. This is then transmitted to the onshore HVDC converter/HVAC substation via the export cables.

3.6.9.14 In case of an HVAC transmission system, up to four large offshore HVAC substations may be built to replace the HVAC collector substations described in paragraph 3.6.9.4 onwards. The maximum design scenario of these large offshore HVAC substations would be the same as the maximum design scenario for offshore HVDC converter substations described here.

Design

3.6.9.15 As for the offshore transformer substations, the offshore HVDC converter substation unit is pre-fabricated in the form of a multi-layered cube. The offshore HVDC converter substation is expected to be larger than the offshore transformer substations, due to the differing power electronics it would contain. The structure will be mounted on a foundation some distance above the sea surface. Up to four separate offshore HVDC converter substations will be required. The maximum design parameters for offshore HVDC converter substations are presented in Table 3.41 below.

Table 3.41: Maximum design parameters for offshore HVDC converter substations.

Parameter	Maximum design parameters
Number of offshore HVDC converter substations	4
Length of topside (m)	180
Width of topside (m)	90
Topside area (m ²)	16,200
Topside - height (excluding helideck or lightning protection) (LAT)	100
Height of lightning protection above topside (LAT)	110
Diesel fuel (l)	200,000

3.6.9.16 Hornsea Three requires flexibility in location and foundation choice of the offshore HVDC converter substations (see section 3.6.5) to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design. However all offshore HVDC converter substations will be located in the Hornsea Three array area.

3.6.9.17 It is possible that the design approach for offshore HVDC converter substations will move towards multiple smaller units, rather than fewer large units. In this case, the maximum design parameters for the smaller offshore transformer substations (as presented in Table 3.39) would apply, however the total number of offshore transformer substations would be up to 12, with up to four offshore HVDC converter substations, not exceeding 16 in total.

Installation

3.6.9.18 Dependent on the design of the offshore HVDC converter substations, installation may be as for the offshore transformer substations (as described in paragraph 3.6.9.1 above), alternatively a 'float-over' installation may be used. This type of installation, usually used with gravity base structures, is similar to that described in paragraph 3.6.5.52 above, however it may also be advantageous to pre-assemble the topside and foundation in the fabrication yard or staging port, and float the whole substation structure to site in a single trip. The vessel requirements for installation of the offshore HVDC converter substations, as well as all other offshore substations and accommodation platforms, are presented in Table 3.40 above.

Offshore HVAC booster station(s)

3.6.9.19 Offshore HVAC booster station(s) are required in HVAC transmission systems only; they are not required in HVDC transmission systems.

3.6.9.20 Long distance, large capacity HVAC transmission systems require reactive compensation equipment to reduce the reactive power generated by the capacitance of the export cable in order to allow the power delivered to the National Grid to be useable. The electrical equipment required to provide the reactive compensation, in the form of an HVAC booster station, can be located onshore, on an offshore platform, or within a subsea structure. Alternatively, a combination of these options could be used.

3.6.9.21 Hornsea Three requires flexibility in location, type and foundation choice for offshore HVAC booster station(s) (see section 3.6.5) to ensure that anticipated changes in available technology and project economics can be accommodated within the Hornsea Three design.

Location

3.6.9.22 If required offshore, this infrastructure would be located in the Hornsea Three offshore cable corridor, rather than in the Hornsea Three array area.

3.6.9.23 For the purposes of the PEIR, an area starting at approximately 40% of the total Hornsea Three cable corridor length (offshore and onshore) and continuing to approximately 60% of the total cable corridor length, was originally identified as the offshore HVAC booster station location search area. This area had initially been chosen based on preliminary electrical design studies indicating this location may be electrically optimal. This area was refined for this Environmental Statement following consultation on the PEIR (see Figure 3.1 and volume 4, annex 4.1: Offshore Export Cable Route Selection) resulting in a final offshore HVAC booster station search area that is as close as possible, taking account of other constraints, to 50% of the distance along the Hornsea Three offshore corridor (including estimated export cable route length within the Hornsea Three array area). The final location of the offshore HVAC booster station(s) will be defined in the detailed design stage, post consent. The siting will take into account final electrical design, water depth, ground conditions and other engineering and economic factors to ensure a location is chosen to minimise impact to the human and natural environment as well as minimising cost of electricity and project risk.

3.6.9.24 There may also be a requirement for an onshore HVAC booster station either instead of or as well as the offshore HVAC booster station(s). This is described in section 3.7.5 below.

Surface

Design

3.6.9.25 Although the different substations perform different functions, and contain differing internal electrical equipment, the external design of a offshore surface HVAC booster station will be very similar to the offshore transformer substations described in paragraphs 3.6.9.1 to 3.6.9.12 above. The maximum design parameters for offshore surface HVAC booster station(s) are presented in Table 3.42 below.

Table 3.42: Maximum design parameters for offshore surface HVAC booster station(s).

Parameter	Maximum design parameters
Number of surface offshore HVAC booster stations	4
Topside – main structure length and width (m)	90
Topside – ancillary structure length and width (m)	100
Topside - height (excluding helideck or lightning protection) (LAT) (m)	70
Height of lightning protection above topside (LAT) (m)	90
Transformer/reactor oil (kg)	350,000
Diesel Fuel (l)	20,000
Sulphur hexafluoride (SF6) (kg)	1,500
Batteries (lead acid gel) (kg)	6,000

Table 3.43: Maximum design parameters for offshore subsea HVAC booster station(s).

Parameter	Maximum design parameters
Number of subsea offshore HVAC booster stations	6
Subsea structure: length (m)	50
Subsea structure: width (m)	50
Subsea structure: height above seabed (m)	15
Subsea structure: number of piles per substation	12
Piles: penetration depth (m)	50
Piles: diameter (m)	2

3.6.9.26 Where an offshore surface platform is used for the offshore HVAC booster station(s), these will comprise a platform with one or more decks, and helicopter platform, attached to the seabed by means of a foundation. They will contain equipment required to provide reactive power compensation and housing auxiliary equipment and facilities for operating, maintaining, controlling the substation and to access the substation by vessels and helicopters.

Installation

3.6.9.27 Installation will be as for the offshore transformer substations as described in paragraph 3.6.9.1 above. The vessel requirements for installation of the offshore surface HVAC booster stations, as well as all other offshore substations and accommodation platforms, are presented in Table 3.40 above.

Subsea

Design

3.6.9.28 Although this technology is known to be in the process of development by the supply chain, at the time of writing no offshore subsea HVAC booster station(s) have been constructed for HV power transfer, therefore the details of this type of structure are primarily based on knowledge of surface designs as well as an understanding of subsea structures used in the offshore oil and gas industry. The structure would likely be a sealed steel or concrete structure, similar to the topside of an offshore substation but fixed to the seabed with piles, and without any substructure required to lift it above the sea surface. It is not expected that this structure would be regularly accessed for operation and maintenance during Hornsea **Three's lifetime** (35 years). The maximum design parameters for offshore subsea HVAC booster station(s) are presented in Table 3.43 below, and an illustration of this type of structure is presented in Figure 3.19.

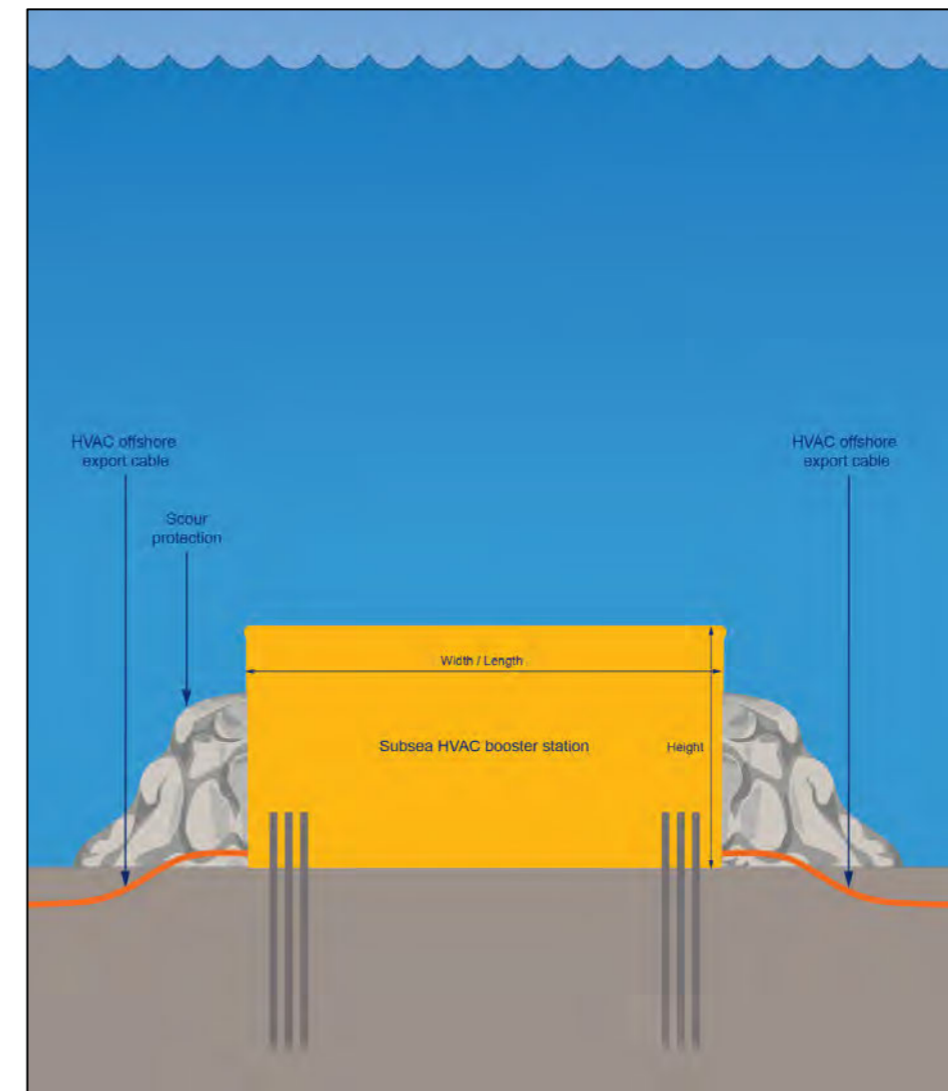


Figure 3.19: Illustration of an offshore subsea HVAC booster station.

Lighting and marking

3.6.9.29 General lighting and marking principles are outlined in section 3.6.14 below. Lighting and marking of the subsea structure (as well as all other Hornsea Three structures) will be discussed and designed in consultation with Trinity House Lighthouse Services (TH), having a statutory duty as a General Lighthouse Authority. This will be necessary to mitigate any risk to shipping that will be presented by a offshore subsea HVAC booster station(s). The marking will be based on the recommendations of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA, 2013). The positions of the structure and export cable will be conveyed to the UK Hydrographic Office (UKHO) so that they can be incorporated into Admiralty Charts and the Notice to Mariners procedures.

Installation

3.6.9.30 The exact installation procedure for offshore subsea HVAC booster station(s) is currently unknown, however it is likely that the structure will be preassembled at the fabrication yard and brought to site either on a barge or on the installation vessel. The installation vessel will then lower the structure to the seabed and secure the structure to the seabed with piles either installed in advance or afterwards.

3.6.9.31 Installation will be as for the offshore transformer substations as described in paragraph 3.6.9.29 above. The vessel requirements for installation for installation of the offshore subsea HVAC booster stations, as well as all other offshore substations and accommodation platforms, are presented in Table 3.40 above.

3.6.10 Offshore export cables

3.6.10.1 Offshore export cables are used for the transfer of power from the offshore substations to the landfall point. For HVAC transmission systems, offshore export cables will carry electricity from the offshore transformer substations to the offshore HVAC booster station(s) and then on to the landfall. For HVDC transmission systems, offshore export cables will carry electricity from the offshore transformer substations to the offshore HVDC converter substations and then to the landfall. Up to six offshore export cables, with a voltage of up to 600 kV for an HVDC transmission system, and 400 kV for an HVAC transmission system will be required for Hornsea Three. Where possible, the cables will be buried below the seabed through to landfall.

3.6.10.2 Hornsea Three requires flexibility in type, location, depth of burial and protection measures for export cables to ensure that anticipated physical and technical constraints and changes in available technology and project economics can be accommodated within the Hornsea Three design.

Design

3.6.10.3 Similarly to the array cables (see section 3.6.6 above), the export cables will consist of a number of conductor cores, usually made from copper or aluminium. These will be surrounded by layers of insulating material as well as material to armour the cable for protection from extremal damage and material to keep the cable watertight. Export cables are typically larger in diameter than array cables.

3.6.10.4 The maximum design parameters for export cables are presented in Table 3.44 below and an example of an offshore export cable (HVAC 220 kV) cross section is presented in Figure 3.20 below.

Table 3.44: Maximum design parameters for offshore export cables.

Parameter	Maximum design parameters
HVAC - number of circuits	6
HVAC – voltage (kV)	400
HVDC - number of circuits	4 (plus one HVAC circuit) ^a
HVDC – voltage (kV)	600
Cable diameter (mm)	320

^a Assuming a maximum of four HVDC circuits plus one HVAC circuit which may be required to supply power from the onshore HVDC converter/HVAC substation to the offshore wind farm in some HVDC system designs.

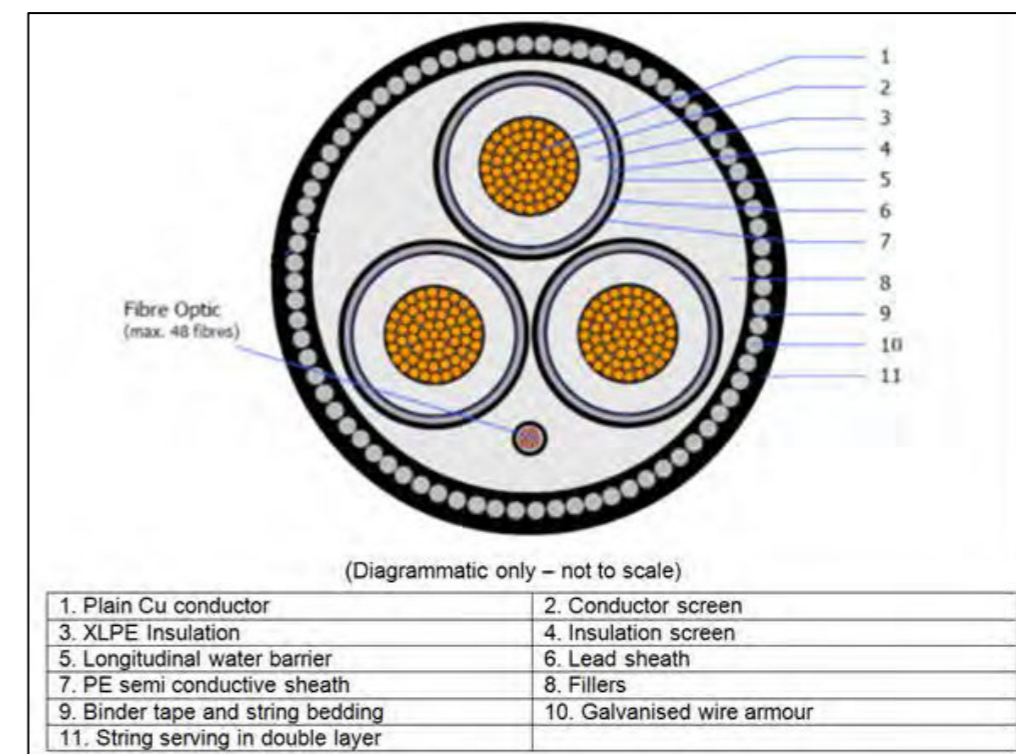


Figure 3.20: Cross section through a typical offshore alternating current (AC) (220 kV) export cable (Courtesy of Prysmian).

Hornsea Three offshore cable corridor

3.6.10.5 The Hornsea Three offshore cable corridor can be seen in Figure 3.1 above, and the maximum design parameters for the offshore cable corridor are presented in Table 3.45 below.

Table 3.45: Maximum design parameters for Hornsea Three offshore cable corridor.

Parameter	Maximum design parameters
Length of Hornsea Three offshore cable corridor (km)	163
Width of Hornsea Three offshore cable corridor (km)	1.5
Length per export cable – including export cable within the Hornsea Three array area (km)	191
Total length of export cables (km)	1,146

Installation

3.6.10.6 The export cable installation methodology, as well as the burial depth and any requirement for protection measures, will be defined by a detailed CBRA. Typically, the cable will be buried between 1 to 2 m. The CBRA will inform cable burial depth which will be dependent on ground conditions as well as external risks. This assessment will be undertaken post-consent. It is likely that the installation techniques will consist of one or a combination of trenching, dredging, jetting, ploughing, vertical injection, MFE and rock cutting.

3.6.10.7 As with the array cables, the export cables will need to be made secure where the cable crosses obstacles such as exposed bedrock, pre-existing cables or pipelines that mean the cable cannot be buried. Cable protection methods include rock placement (rock protection), concrete mattresses, fronded mattresses, rock bags, and seabed spacers among others. These are described further in paragraph 3.6.10.11 below. Up to 10% of the total export cable length may require protection due to ground conditions (this excludes cable protection due to cable crossings). Up to 10% of the export cable within the Cromer Shoal Chalk Beds MCZ, The Wash and North Norfolk Coast SAC and North Norfolk Sandbanks and Saturn Reef SAC which intersect the Hornsea Three offshore cable corridor may include cable protection.

3.6.10.8 The methodology for export cable crossings would be the same as for array cable crossings, paragraphs 3.6.6.7 to 3.6.6.18 describe this process in more detail.

3.6.10.9 The maximum design parameters for installation of up to six export cables are presented in Table 3.46 below.

Table 3.46: Maximum design parameters for export cable installation.

Parameter	Maximum design parameters
Installation methodology	Trenching, dredging, jetting, ploughing, mass flow excavation, vertical injection, rock cutting
Seabed disturbance – within Cromer Shoal Chalk Beds MCZ (m ²)	60,000
Seabed disturbance – within The Wash and North Norfolk Coast SAC (m ²)	999,000
Seabed disturbance – within North Norfolk Sandbanks and Saturn Reef SAC (m ²)	4,230,000
Seabed disturbance – outside designated sites (m ²)	9,351,000
Seabed disturbance – total (m ²)	14,640,000
Rock protection area (m ²)	802,200
Rock protection volume (m ³)	1,146,000
Burial spoil: jetting (m ³)	2,532,660
Burial spoil: ploughing/mass flow excavation (m ³)	6,876,000
Duration (months)	36

3.6.10.10 Cable installation and route preparation will be undertaken by specialist vessels, the vessel requirements for offshore export cable installation are presented in Table 3.47. Based on previous experience within Ørsted at other offshore wind farms, it is possible that a small JUV or a flat top barge will be required for export cable installation in shallow water, around HDD exit pits.

Crossings

3.6.10.11 The Hornsea Three offshore cable corridor crosses a number of existing assets, primarily oil and gas pipelines that connect to production wells in the North Sea. The design and methodology of these crossings will be confirmed in agreement with the asset owners, however it is likely that a berm of rock will be placed over the existing asset for protection, known as a pre-lay berm, or separation layer. The export cable will then be laid across this, at an angle close to 90 degrees. The export cable will then be covered by a second post lay berm to ensure that the export cable remains protected and in place. The rock berms will be inspected at regular intervals and may need to be replenished with further rock placement dependent on their condition. This operational rock placement would not exceed 25% of the original rock volume. The parameters for these crossings are presented in Table 3.48 below.

Table 3.47: Maximum design parameters for export cables - vessel and helicopter requirements.

Parameter	Maximum design parameters
Jack-up area per leg (m ²)	1.2
Jack-up number of legs	4
Number of jack-ups per exit pit	5
Number of barge groundings per exit pit	1
Main laying vessels (return trips)	180
Main jointing vessels (return trips)	120
Main burial vessels (return trips)	180
Support vessels (return trips)	270
Helicopter support (return trips)	1,828

Table 3.48: Maximum design parameters for offshore export cable crossings.

Parameter	Maximum design parameters
Number of external assets requiring crossing in Cromer Shoal Chalk Beds MCZ	0
Number of external assets requiring crossing in North Norfolk Sandbanks and Saturn Reef SAC	20
Number of external assets requiring crossing in The Wash and North Norfolk Coast SAC	0
Number of external assets requiring crossings outside of the Cromer Shoal Chalk Beds MCZ, The Wash and North Norfolk Coast SAC and North Norfolk Sandbanks and Saturn Reef SAC	24
Replenishment during operations (% of construction total)	25
Cable/pipe crossings: total seabed area – per crossing (m ²)	2,500
Cable/pipe crossings: total seabed rock volume including operation – per crossing (m ³)	2,625
Cable/pipe crossings: total seabed area (m ²)	660,000
Cable/pipe crossings: total seabed rock volume including operation (m ³)	693,000
Rock protection area (m ²)	802,200
Rock protection volume (m ³)	1,146,000

3.6.11 Offshore interconnector cables

3.6.11.1 Hornsea Three may require power cables to interconnect the offshore substations in order to provide redundancy in the case of cable failure elsewhere, or to connect to the offshore accommodation platforms in order to provide power for operation. The cables will have a similar design and installation process to the offshore export cables and array cables. The parameters for design and installation of the offshore interconnector cables are presented in Table 3.49 and Table 3.50 below.

Table 3.49: Maximum design parameters for offshore interconnector cables.

Parameter	Maximum design parameters
Number of cables	15
Total cable length (km)	225
Voltage (kV)	400

Table 3.50 Maximum design parameters for offshore interconnector cable installation.

Parameter	Maximum design scenario
Installation methodology	Trenching, dredging, jetting, ploughing, mass flow excavation, vertical injection, rock cutting
Burial depth	Typically 1 to 2m. Dependent on CBRA ^a
Total seabed disturbance (m ²)	3,375,000
Burial spoil: jetting (m ³)	497,250
Burial spoil: ploughing/mass flow excavation (m ³)	1,350,000
Number of external assets requiring crossings	See Table 3.33
Cable/pipe crossings: total seabed area – per crossing (m ²)	
Cable/pipe crossings: total seabed rock volume including operation – per crossing (m ³)	
Cable/pipe crossings: total seabed area (m ²)	
Cable/pipe crossings: total seabed rock volume including operation (m ³)	
Rock protection area (m ²)	157,500
Rock protection volume (m ³)	225,000

^a Typically the cable will be buried between 1 and 2 m. A CBRA or similar will inform cable burial depth, dependent on ground conditions as well as external risks. This assessment will be undertaken post-consent.

3.6.12 Hornsea Three intertidal area

3.6.12.1 The offshore export cables will make landfall west of Weybourne in North Norfolk. Figure 3.21 delineates the Hornsea Three intertidal area, and the onward Hornsea Three onshore cable corridor.

3.6.12.2 The works at the Hornsea Three intertidal area comprise the works required to bring the offshore export cables through the intertidal area to a location where they can be connected to the onshore export cables. The offshore cables are connected to the onshore cables at the Transition Joint Bays (TJBs), located onshore. The works at the Hornsea Three intertidal area would primarily be the same irrespective of whether HVAC or HVDC transmission is selected.

3.6.12.3 TJBs are pits dug and lined with concrete, in which the jointing of the offshore and onshore export cables takes place. One TJB is required per export cable circuit. They are constructed to ensure that the jointing can take place in a clean, dry environment, and to protect the joints once completed. Once the joint is completed the TJBs are covered and the land above reinstated. It is not expected that the TJBs will need to be accessed during the operation of the wind farm, however link boxes (see paragraph 3.6.5.11) need to be located nearby that do require access during the operational phase, these will also be reinstated but may have manhole covers for access. In certain locations these may then be fenced to prevent damage.

3.6.12.4 During intertidal works, a landfall construction compound is required on the onshore side of the Hornsea Three intertidal area. The location of the landfall construction compound is shown on the Works Plan - Onshore (document reference number A2.4.2). This will house the TJB works as well as any Horizontal Directional Drilling (HDD) works, including supporting equipment and facilities. The maximum design parameters for the TJBs and Hornsea Three intertidal area are presented in Table 3.51 below. Durations for activities provided in Table 3.51 below demonstrate that certain activities forming part of the landfall HDD works have a significantly shorter duration than the overall construction window. However, the duration of works from start to finish must allow flexibility for these activities to shift within the overall timeframe to account for variables such as the timings of offshore and onshore works reaching landfall and weather, etc. In addition, the overall duration of works allows for mobilisation and demobilisation of equipment and vessels.

3.6.12.5 The techniques used to carry out the landfall works broadly fall in to two categories; open cut installation or trenchless techniques (i.e. HDD or thrust boring). It may be possible to carry out a HDD to beyond the Hornsea Three intertidal area, and install the rest of the cable using an offshore installation spread. The technical feasibility of this approach will require confirmation via an intrusive geotechnical survey campaign. However, it may also be the case that the HDD is not possible or preferred (due to ground conditions, cable design, or other factors), in which case open cut techniques would be required to install the cable from offshore to the TJBs.

Table 3.51: Maximum design parameters for TJBs and landfall works.

Parameter	Maximum design parameters
Number of TJBs	6
TJB depth (m)	6
Landfall construction compound (m ²)	42,000
Duration of trenching works (per cable) if open cut (weeks)	2
Duration of works for each HDD (months)	4
Duration of works (start – finish) (months)	32

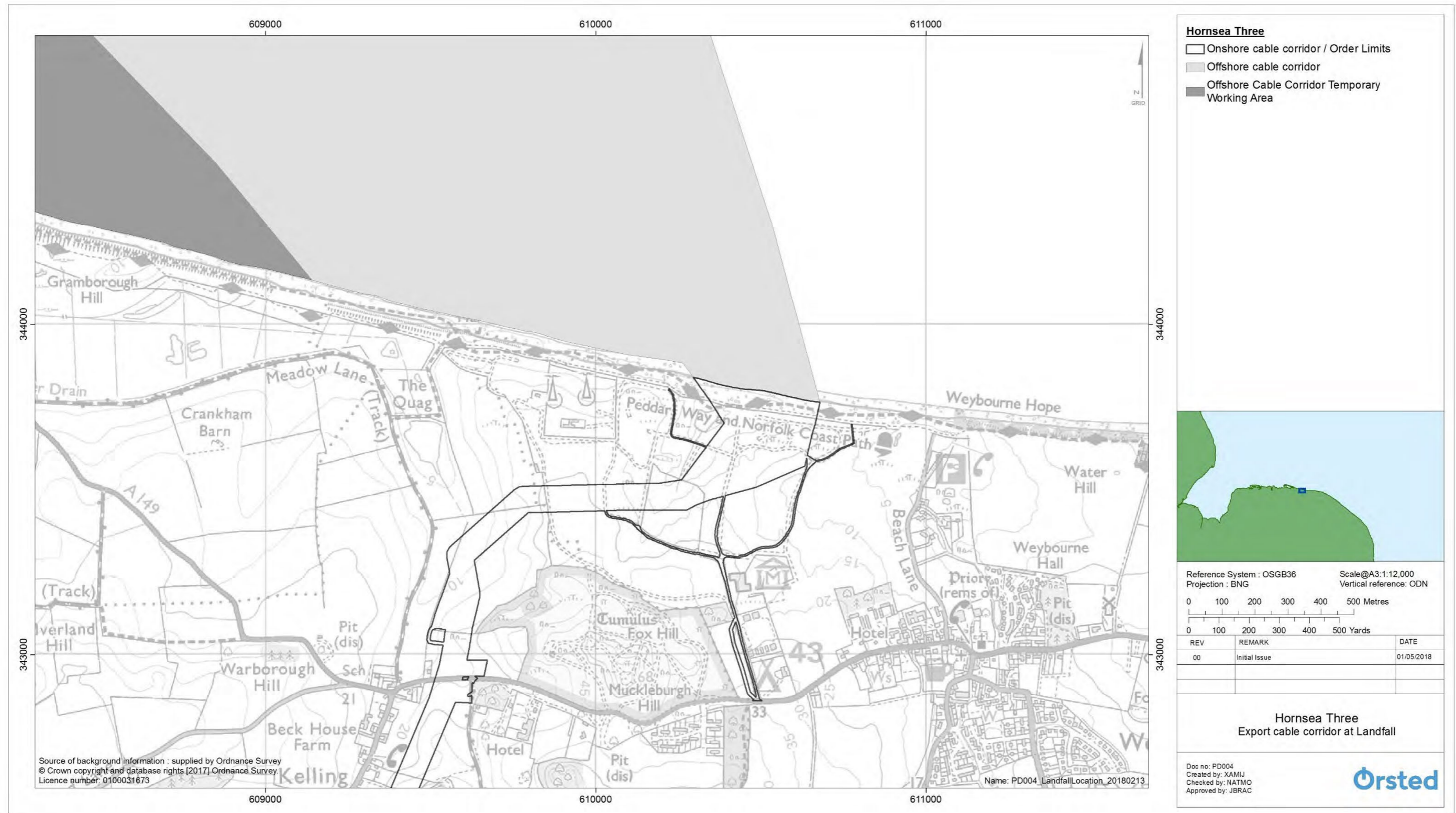


Figure 3.21: Hornsea Three cable corridor in the vicinity of the intertidal area.

Trenchless techniques

Horizontal Directional Drilling (HDD)

- 3.6.12.6 HDD involves drilling a long parabolic borehole underneath the Hornsea Three intertidal area and shingle beach using a drilling rig located in the TJB works area on the landward side of the sea defences (Figure 3.22).
- 3.6.12.7 For HDD works, the site will be set up in the following way:
- Demarcation of the required compound will be made using security fencing.
 - Topsoil will be removed and stored within the allocated compound areas.
 - Stone and tarmac will be imported for final surfacing, followed by site setup works and Porta cabin deliveries.
- 3.6.12.8 Existing access roads may be upgraded or new access roads may be constructed into the landfall construction compound.
- 3.6.12.9 As the drill can only be carried out in a straight line, pits must be dug at both ends of the planned drill to below the level required for the cable so the drilling rig can carry out the drill horizontally, and the ducts can be installed. Two pits would be required per duct, one on the landward side and one offshore. The pits on the landward side of the HDD would be up to 25 m long, 5 m wide and 6 m deep. The dimensions of the offshore exit pits are included in Table 3.52 below.
- 3.6.12.10 The process uses a drilling head controlled from the rig to drill a pilot hole along a predetermined profile based on an analysis of the ground conditions and cable installation requirements. This pilot hole is then widened using larger drilling heads until the hole is wide enough to fit the cable ducts. Bentonite is pumped to the drilling head during the drilling process to stabilise the hole and ensure that it does not collapse. Prior to the drilling taking place, an exit pit may be excavated in the nearshore area of the Hornsea Three offshore cable corridor in order for the HDD profile and ducts to stop at the required installation depth for the cable. An example of a HDD rig undertaking a HDD for an export cable landfall can be seen in Figure 3.23.
- 3.6.12.11 Given the small tidal range at landfall, a wet punch-out (i.e. an exit below MLWS, no closer than 200 m from MHWS) will occur. If this is the case and HDD rather than open-cut trenching is used, beach access would only be required in the event that a mud return line is dug into the beach, in order to carry recovered cuttings and drilling fluid from the hole back to shore for processing. In this case, it will be accomplished by a mini-excavator. Another option is to allow the drilling fluid and cuttings to exit into the marine environment during reaming and pipe pulling operations. Full drilling fluid losses are acceptable in some instances with the use of benign seawater based drilling fluid.
- 3.6.12.12 Access to the beach will be via existing tracks and the depression to the beach. In the event a mud line is dug in (rather than drilled in parallel to the HDDs) then a 'moving compound' of about 20 m² will be established around the excavator. A temporary beach closure may be required for pulling in the mud line over the beach in this case. This operation will be undertaken once per construction phase, as the mud return line will be moved offshore between pits.
- 3.6.12.13 Once the HDD drilling has taken place the ducts (within which the cable will be installed) are pulled through the drilled hole. These ducts are either constructed offsite, then sealed and floated to the site by tugs, or will be constructed within the landfall construction compound and, if required within the Hornsea Three onshore cable corridor, then pulled over the beach on rollers. The ducts are then pulled back through the drilled hole either by the HDD rig or by separate winches. When the offshore export cable is installed it is pulled through the pre-installed HDD ducts by winches in the TJB working area.
- 3.6.12.14 A short beach closure of up to 24 hours per circuit will be required if pulling onshore welded pipes offshore.
- 3.6.12.15 The maximum design parameters for HDD at the landfall are presented in Table 3.52 below.
- 3.6.12.16 HDD exit pits will be established using one of the two following methods:
- Dredged exit pit: which has a fabricated cap to contain fluid within the dredged pit. Drilling slurry would then be pumped from below the cap back onto the lay barge for recycling before being pumped back to shore through a high density polyethylene (HDPE) mud return line. This is either drilled into position or laid on the sea bed anchored with concrete blocks (600 mm², 5 to 10 m spacing) before being laid across the beach as described above; or
 - Sealed coffer dam, sheet piled and pumped dry which would be removed at the end of HDD works. Sheet piling and internal support frames may be required to keep the pits open during the operations and meet health and safety requirements.
- 3.6.12.17 The HDD exit pits will be located between 200 m and 1,500 m from MHWS mark.
- 3.6.12.18 There will be up to four exit pits open at any given time. If the pits are dredged, they will be backfilled immediately following cable installation.
- 3.6.12.19 For either method, the exit pit could be open for up to two months whilst drilling operations are underway and coffer dams may take up to 28 days to remove afterwards. Overall, exit pit operations will take up to four months:
- Maximum one month site setup (including pit excavation);
 - Two months pit fully open, drilling & duct pull-in happening; and
 - Maximum one month reinstatement (including backfill and cofferdam removal).

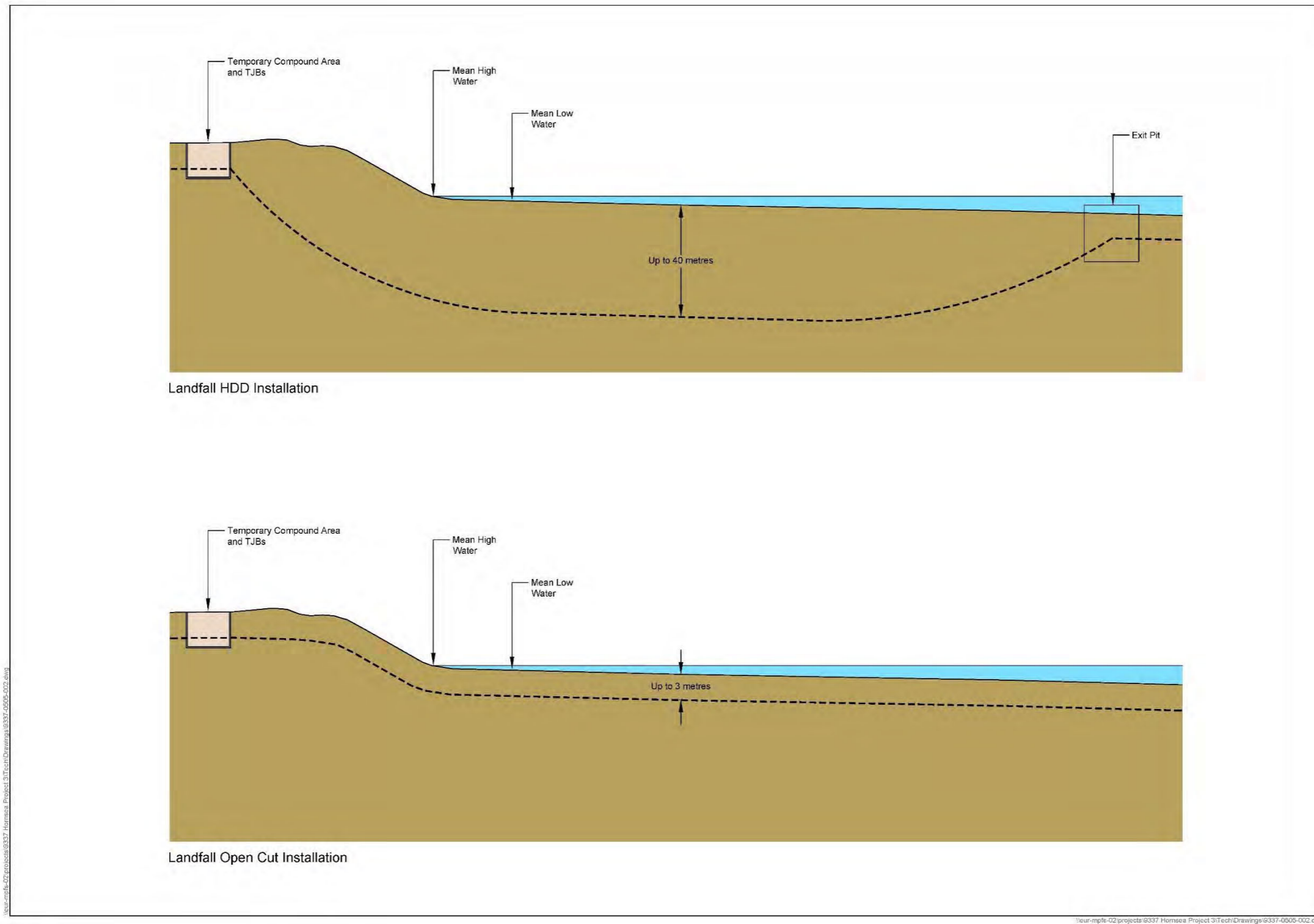


Figure 3.22: Indicative HDD and open cut arrangement.



Figure 3.23: HDD rig carrying out landfall works at the Westermost Rough offshore wind farm.

- 3.6.12.20** Once the ducts have been installed, the pits will likely be temporarily back filled until the time for cable pull-in. The ducts will then need to be re-exposed (dredged) for a period of up to two weeks (no coffer dams are necessary for this operation) to pull in the cables.
- 3.6.12.21** If material is removed by barge to a designated disposal site in the Hornsea Three offshore cable corridor, before being recovered for backfilling, excavated material will need to be re-imported from the storage area. Some additional material (rocks) may be necessary to make up for any loss, or in case the onward plough cannot bury the cable within the exit pit. It is also possible that the excavated material is stored within the Cromer Shoal Chalk Beds MCZ. If excavated material is stored within the Cromer Shoal Chalk Beds MCZ, Hornsea Three will avoid the key features – specifically exposed chalk, and peat and clay exposures (i.e. the spoil will not be placed in these areas).

Table 3.52: Maximum design parameters for landfall HDD.

Parameter	Maximum design parameters
HDD cable ducts	8
Diameter of ducts (m)	1
Length of ducts (km)	2.5
HDD burial depth maximum (m)	40
HDD burial depth minimum (m)	5
HDD exit pits number	8
HDD exit pit area – short ^a HDD (m ²)	450
HDD exit pit area – long ^a HDD (m ²)	900
HDD exit pit excavated material volume – short ^a HDD (m ³)	1,000
HDD exit pit excavated material volume – long ^a HDD (m ³)	2,500
HDD exit pits depth (m)	3
^a A short HDD length equates to an exit pit located approximately 200 m from MHWS and a long HDD length equates to an exit pit located approximately 800 m from MHWS.	

Open cut installation

- 3.6.12.22** Open cut installation would be carried out using one of a number of methods. Installation tools, such as ploughs, rock cutters or jetting tools, similar to those used offshore, can be pulled from the offshore installation vessel, or from winches within the TJB working area (within the landfall construction compound), over a pre-laid cable to simultaneously open a trench, place the cable in the trench, and cover the cable. Alternatively, the trenching tool may open a trench in advance, the cable would be lowered into this trench and covered, after it has been pulled across the beach. These tools are usually pulled along the beach on skids or are tracked. All the installation techniques described for the offshore cable installation are applicable to the landfall installation, excluding dredging. Figure 3.24 shows an example of this type of installation tool.
- 3.6.12.23** A landfall construction compound will be established approximately one to two weeks before installation. This would include plant storage, consumable storage area including fuel, welfare facilities, parking, pulling winches, anchor points and TJB. In addition, whilst works are ongoing on the beach, a temporary closure will be required from mean low water (MLW) to the landfall construction compound for operational, and health and safety reasons. This would be up to one month per cable.



Figure 3.24: Example of a cable plough pulled from an installation vessel.

(source: <http://www.4coffshore.com/s/about/equipmentTypes.aspx>)

- 3.6.12.24** Prior to the vessel arrival, rollers may be placed from the MLW to the plough grade in position, if a plough is used.
- 3.6.12.25** Upon vessel arrival, the plough is landed and pulled back to the grade in position. Tugs may be required for anchor placement. This would take approximately two days. Rollers would be placed between the plough and the vessel. The cable would be pulled from the vessel, through the plough to the TJB in the duration of one day. Then the vessel would plough away.
- 3.6.12.26** Rollers would then be removed and cable would be laid on the beach. Burial works would then commence, with excavators entering the beach and excavate a trench next to the cable, after which the cable would be lowered into the trench. Mattresses (or similar) may be placed over the cable. The trench is then reinstated followed by the removal of the landfall construction compound. Public access to the beach may be restricted during this process, for up to one month per cable.
- 3.6.12.27** The maximum design parameters for open cut installation at the Hornsea Three intertidal area are presented in Table 3.53 below. The distance between circuits may vary depending on soil thermal characteristics and the burial depth is dependent on the beach profile. The working corridor will be reinstated as the tide returns.

Table 3.53: Maximum design parameters for open cut installation.

Parameter	Maximum design parameters
Landfall construction compound (m ²)	42,000
Distance between circuits (m)	20
Burial depth (m)	1 to 3
Intertidal burial progress rates (m/day)	100
Corridor width (m)	15
Cobble size for backfilling (mm)	250

Other methods

- 3.6.12.28** Alternatively, self-powered bespoke installation tools may be used. These are usually tracked vehicles, that excavate a trench, lay the cable, and then bury the cable simultaneously. Alternatively, they may excavate a trench in advance, then post lay the cable after the pull to the TJB. They are similar to the tools described above, but are self-powered vehicles that are either controlled from on board the vehicles themselves, or are ROV type systems, controlled from and connected to the offshore installation vessel. Figure 3.25 shows this type of installation tool.
- 3.6.12.29** Traditional mechanical excavators, similar to those that would be used to dig TJBs and exit pits etc., can also be used for cable installation. In this process, the cable would be pulled from the offshore installation vessel through the Hornsea Three intertidal area on rollers placed on the ground. The cable would then be moved from the rollers into a neighbouring trench usually excavated before the cable is laid across the beach.



Figure 3.25: The 'sunfish' installation tool as used for cable installation at the Race Bank offshore wind farm.

3.6.13 Vessel activities

3.6.13.1 During the construction of Hornsea Three, a number and variety of vessels will be utilised for installation, support and transport of equipment and infrastructure to the Hornsea Three array area and the offshore cable corridor.

3.6.13.2 The total vessel numbers, vessel movements (return trips from a construction compound to site and back again) and durations are collated in Table 3.54 below. Each vessel movement represents a return trip to and from the Hornsea Three array area.

3.6.13.3 Indicatively, the busiest period during construction in terms of vessel traffic would be when up to eight vessels (installation and commissioning vessels) could be found in a given 5 km² area. This level of activity is unlikely to occur across the entire Hornsea Three array area at any one time, rather this intensity is expected across approximately three or four 5 km² blocks.

Table 3.54: Total values for vessel activities during construction phase.

Vessels	Maximum design parameters
<i>Wind Turbine Installation</i>	

Vessels	Maximum design parameters
Installation vessels	4
Support vessels	24
Transport vessels	12
Installation vessels movements	300
Support vessels movements	1,800
Transport vessels movements	900
Helicopters movements	225
<i>Monopiles (WTG) construction (standard assumptions for other foundations if not stated)</i>	
Installation vessels	4
Support vessels	16
Transport vessels (barges and tugs)	10 + 30
Feeder barge concept - installation vessels movements	300
Feeder barge concept - support vessels movements	1,200
Feeder Barge concept - transport barge movements	150
Feeder Barge concept - transport barge tug movements	450
Helicopters movements	600
<i>Gravity Base (WTG) – construction (mutually exclusive with Monopile values above)</i>	
Installation vessels	3
Support vessels	13
Dredging vessels	12
Tug vessels	4
Self-installing concept - support vessels movements	1,500
Self-installing concept - dredging vessels movements	1,200
Self-installing concept - tugs movements	1,200
<i>Substation foundations construction</i>	
Primary installation vessels	2
Support vessels	12
Transport vessels	4
Primary installation vessels movements	38
Support vessels movements	228

Vessels	Maximum design parameters
Transport vessels movements	38
Helicopter movements	532
<i>Inter-array cables installation</i>	
Main laying Vessels	3
Main burial Vessels	3
Support vessels: crew boats or SOVs	4
Support vessels: service vessel for pre-rigging of towers	2
Support vessels: diver vessels	2
Support vessels: vessels for PLGR	2
Support vessels: dredging vessels	2
Main laying Vessels movements	315
Main burial Vessels movements	315
Support vessels movements	1,890
Helicopter movements	600
<i>Export cables installation</i>	
Main laying vessels movements	180
Main jointing vessels movements	120
Main burial vessels movements	180
Support vessels movements	270
Helicopters movements	1,828

3.6.14 Aids to navigation, colour, marking and lighting

3.6.14.1 Each turbine (including colours, marking and lighting) and any required aids to navigation will be designed in accordance with relevant guidance from Trinity House, the CAA and the MCA. The positions of all infrastructure (including turbines, substations, platforms and cables) will be conveyed to the UK Hydrographic Office (UKHO) so that they can be incorporated into Admiralty Charts and the Notice to Mariners procedures.

3.6.14.2 Lighting and marking of subsea structures will be discussed with TH, having a statutory duty as a General Lighthouse Authority, where there may be a risk to shipping. In this case, the marking would be based on the recommendations of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA, 2013).

3.6.15 Safety Zones

3.6.15.1 During construction and decommissioning, Hornsea Three will apply for a 500 m safety zone around infrastructure that is under construction, including at the Hornsea Three intertidal area. Safety zones of 50 m will be sought for incomplete structures at which construction activity may be temporarily paused (and therefore the 500 m safety zone has lapsed) such as installed monopiles without transition pieces or where construction works are completed but the wind farm has not yet been commissioned.

3.6.15.2 During the operation and maintenance phase, Hornsea Three may apply for a 500 m safety zone around manned infrastructure (such as offshore accommodation platforms) in order to ensure the safety of the individuals aboard. Hornsea Three may also apply for 500 m safety zones for infrastructure undergoing major maintenance (for example a blade replacement).

3.6.15.3 Further information regarding the Safety Zones which Hornsea Three intends to apply for post consent is outlined in the Safety Zone Statement (document reference number A7.1).

3.7 Onshore infrastructure

3.7.1.1 The following sections provide a description of the onshore components of Hornsea Three, together with relevant information on construction, or operation and maintenance, methods and techniques where these are relevant to the EIA.

3.7.2 Onshore site preparation activities

Pre-Construction Surveys

3.7.2.1 Prior to the commencement of the main works associated with installing the export cable and construction of the onshore substations (onshore HVAC booster station and onshore HVDC converter/HVAC substation), a number of activities may need to occur along the Hornsea Three onshore cable corridor. These include ground investigations, topographical, ground penetrating radar (GPR), UXO, ecological (see volume 3, chapter 3: Ecology and Nature Conservation) and archaeological (volume 3, chapter 5 : Historic Environment) surveys, soil surveys, utility and private supplies surveys. These works are generally non intrusive or, such as archaeological investigations, ground investigations and in the event a UXO is identified, targeted excavations. These are conducted to highlight specific areas of interest along the proposed Hornsea Three onshore cable corridor and at the onshore HVAC booster station and onshore HVDC converter/HVAC substation well in advance of the construction activities.

Ground Investigations

3.7.2.2 Ground Investigations may need to be taken at the substation sites, all HDD locations and along the Hornsea Three onshore cable corridor at predetermined intervals to determine geotechnical data, water monitoring and the thermal resistivity properties of the soils to assist with the cable route design. Typically these occur up to two years prior to commencement of main works.

3.7.2.3 CPTs, boreholes, window samples and exploratory/trial pits may be required for the onshore and HDD sections of the Hornsea Three onshore cable corridor. Gas monitoring may also be undertaken alongside water monitoring depending on the ground conditions.

3.7.2.4 At the Hornsea Three intertidal area, the onshore part of the works may be investigated using land based borehole rigs, JCBs (for trial pits) and tracked CPT rigs. The Hornsea Three intertidal area may require a combination of these land based borehole/CPT rigs and/or vessel based techniques depending on safety considerations for accessibility of the HDD section between tides.

3.7.2.5 Ground investigations may be dug by hand in constrained and congested areas or by using a drilling rig in more open areas. Ground investigation may also require the opening of trial pits or trenches and a range of supplementary sampling and monitoring activities (both intrusive and non-intrusive).

3.7.2.6 Any ground investigations will be undertaken in accordance with adopted industry practices and typically extend to identifying the position and the nature of any above and below ground services along the Hornsea Three onshore cable corridor. They shall be identified as accurately as possible by means of ground penetrating radar (GPR) survey techniques, opening of existing manholes, service covers, ducts and conduits and the investigation of any above ground cabinets and structures. Obvious surface features, drains, open watercourses, indentations and partially buried structures along with potential contamination sources will all be identified and factored into subsequent stages of ground investigations.

3.7.2.7 Intrusive ground investigation exploratory holes typically include inspection pits and can also encompass cable percussion boreholes (with rotary follow on), pavement coring, structural investigations, window sampling and penetration testing, trial trenches and surface water sampling.

Soil Surveys

3.7.2.8 Engagement with landowners and tenants of agricultural land is an important part of informing the detailed design and management of the construction works. Prior to the commencement of works, the contractor (or project appointed Agricultural Liaison Officer) will need to document information on existing agricultural management and soil/land conditions. This action may require soil condition surveys and intrusive soil survey trial pits, the purpose of which is to identify and describe the physical and nutrient characteristics of the existing soil profiles. The trial pits would typically be dug by hand along the Hornsea Three onshore cable corridor at approximately 100 m intervals.

3.7.2.9 Other associated preparation activities (non-intrusive) may include: surveys of existing crop regimes, position and condition of field boundaries, condition of existing access arrangements; establishment of location of private water supplies (as far as reasonable investigations allow), review of the type of agriculture taking place, assessments of yield of crops, quality of grazing land; and existing weed burden.

Drainage Management

3.7.2.10 As part of the wider excavation works it is likely that existing field drainage could be severed by the cable installation works. To manage this ahead of main works the contractor will develop a drainage strategy in consultation with the landowner. Initial works then encompass the installation of preconstruction drainage, the purpose of which is to bypass the existing drainage system to enable wider excavations whilst maintaining field drainage.

3.7.2.11 To undertake this preconstruction drainage various tracked machinery will be used, with targeted ground clearance undertaken. An example of a tool to be used in this activity can be seen in Figure 3.26.



Figure 3.26: An example of a tracked tool used for pre-construction drainage.



Figure 3.27: A sample site for archaeological investigations

Archaeological investigations

- 3.7.2.12** Archaeological investigations or archaeological evaluation (field testing) may need to be undertaken along the Hornsea Three onshore cable corridor at predetermined locations to ascertain if any archaeological items of interest are present. Typically these occur up to two years prior to commencement of main works.
- 3.7.2.13** The aim of this evaluation is to examine a representative sample of the remains affected by development in order to generate accurate information on the heritage assets actually present. The evaluation stage generally consists of trial work that is relatively small-scale, selective and sample-based whilst still sufficient to quantify, characterise and date the full range of archaeological remains potentially affected by development works.
- 3.7.2.14** Archaeological techniques that may be employed, include boreholes, archaeological trenches (as well as non-intrusive geophysical investigations). Early archaeological investigations may also rely upon Watching Briefs from suitably qualified personnel.
- 3.7.2.15** The field testing may lead to a more extensive archaeological campaign which could include archaeological excavation (full or sample excavation), further general and targeted investigations and in some instances the potential for historic building recording – although this is expected to be minimal or not required during the construction due to the separation between onshore works and historic buildings. A sample site can be seen in Figure 3.27.

Watercourse Crossings

- 3.7.2.16** The export cable will traverse a number of drains and ditches (main river crossings are considered under HDDs). The application has prepared an Outline Watercourse Crossing Method Statement documenting the techniques that will be deployed at crossing points of watercourses (refer to the Outline Code of Construction Practice (document reference number A8.5): Appendix B - Outline Method Statement for Crossing Techniques). Watercourses will be crossed by way of HDD or Open Cut Trench. Where open cut trench, the outline method statement advises of the following pre-commencement works and activities that may be required:-
- Stage 1 – Setting out of the works and preparation of working area;
 - Stage 2 – Construction of dam and culvert or pump installation;
 - Stage 3 – Trench excavation;
 - Stage 4 – Cable installation; and
 - Stage 5 – Reinstatement.
- 3.7.2.17** The Outline Watercourse Crossing Method Statement also documents the provision of temporary haul road bridge and flume crossing where the open cut trench passes over drains and ditches. The provision of the haul road bridge retains access either side of the water body for construction workers. An example of flume installation at a water crossing can be seen in Figure 3.28.



Figure 3.28: A sample flume installation.

Hedge removal and vegetation clearance

- 3.7.2.18** Hedges and vegetation will be removed ahead of each working section. Where hedgerows and trees occur within the working area (and cable installation is not limited to HDD techniques), they will be removed. The width of hedge removed will be limited where possible – for example if Hornsea Three is delivered in two phases the construction contractor may not need to remove the full 80m temporary easement. Further details on hedgerow removal are presented in volume 3, chapter 3: Ecology and Nature Conservation and Outline Ecological Management Plan (document reference number A8.6).
- 3.7.2.19** Where works are required to hedgerows, these will be minimised and will be in line with the principles detailed in the Outline Landscape Management Plan and Outline Ecological Management Plan (document reference number A8.7 and A8.6 respectively). Prior to the commencement of any works to a hedgerow, an Ecological Clerk of Works (ECoW) will be present on site to ensure that the specified protection and mitigation measures are appropriately implemented.

Demarcation fencing for the cable easement

- 3.7.2.20** Fencing will be installed along the entire export cable route to define the cable corridor and works areas. The type of fencing to be used will be dependent on the land use where the easement crosses it.
- 3.7.2.21** Fencing will be installed as part of the preconstruction activities and would typically consist of:
- Post and rope for arable land;
 - Post and rail for horse fields; and
 - Post mesh and wire/barb for cattle and sheep.
- 3.7.2.22** Further details on fencing are documented in the Outline Code of Construction Practice (document reference number A8.5).

Access points off the highway

- 3.7.2.23** Access points will be required from the public highway onto the Hornsea Three onshore cable corridor. Temporary access points off the highway will be installed to facilitate vehicular access from the road, and into to the onshore cable corridor during construction. The access points will be constructed in line with **the local authorities' requirements and in accordance with the** principles established in the Outline Traffic Management Plan (document reference number A8.2). The location of access points is shown on the Access to Works Plan (document reference number A2.5).
- 3.7.2.24** Access points will be required from the start of construction at that locality. Temporary access points typically comprise tarmac and stone finish. During the installation of these works traffic management arrangements may be required on the public highway. Further details on access are documented in the Outline Code of Construction Practice (document reference number A8.5) and Traffic Management measures associated with making use of an access point detailed in the Outline Construction Traffic Management Plan (document reference number A8.2).

Haul road

- 3.7.2.25** To provide access to the Hornsea Three onshore cable corridor and limit damage to the agricultural land, the haul road will be installed as part of the preconstruction cable works at the start of construction in that locality. The haul road, typically 6 m wide, and extending up to the full length of the Hornsea Three onshore cable corridor (except where Hornsea Three **has committed to** "HDD only"). The haul road provides vehicular access along the cable easement off the public highway and will be used where needed throughout the installation of the export cable. Following completion of the works being served by that access point, the haul road will be removed and the land reinstated.
- 3.7.2.26** The haul road will be utilised during installation and be made up of either: an average of 0.3 m of permeable gravel aggregate with a geotextile or other type of protective matting; or plastic or metal plates or grating.

3.7.3 Onshore export cables

3.7.3.1 Offshore export cables will connect to the onshore export cables at the TJBs (see section 3.6.12) and transfer the power onwards to the onshore HVDC converter/HVAC substation (potentially via an onshore HVAC booster station in the case of HVAC, see section 3.7.5). The onshore export cables will be buried for the entirety of the Hornsea Three onshore cable corridor. Overhead lines are not proposed for Hornsea Three.

Hornsea Three onshore cable corridor

3.7.3.2 The Hornsea Three onshore cable corridor consists of an 80 m (although a wider corridor is provided for in certain limited locations as shown on the Works Plans – Onshore (document reference number A2.4.2)) temporary easement, within which a 60 m permanent easement post installation is located. An overview of the Hornsea Three onshore cable corridor is presented in Figure 3.29, with more detailed routing shown on the Works Plans – Onshore (document reference number A2.4.2).

3.7.3.3 The route refinement analysis that has informed the final corridor presented in the Hornsea Three application is detailed in volume 1, chapter 4: Site Selection and Consideration of Alternatives and has been designed in accordance with a wide range of human, biological and physical constraints as well as technical and commercial considerations.

Design

3.7.3.4 Up to six export cable circuits will be required, with each circuit consisting of up to three single cables. The cables themselves consist of copper or aluminium conductors wrapped with various materials for insulation, protection, and sealing. Table 3.55 below shows the maximum design scenario for the onshore export cables. Small fibre optic cables may also be buried alongside the export cables in order to allow for communication to the wind farm for the various control systems in place for the project.

3.7.3.5 The potential generation of electro-magnetic field (EMF) are a factor of cable current. The potential for EMF generation from the onshore export cables is considered in volume 4, annex 3.3: EMF Compliance Statement.

Table 3.55: Maximum design parameters for onshore export cables.

Parameter	Maximum design parameters
HVAC - number of cable circuits	6
HVAC - number of cables	18
HVDC – number of circuits ^a	4 (plus one HVAC circuit)
HVDC – number of cables ^a	11
Approximate Hornsea Three onshore cable corridor length (km) ^b	53
Voltage (kV)	600
Diameter of cable (mm)	220
Diameter of duct (mm)	330
a	Assuming a maximum of four HVDC circuits plus one HVAC circuit (with three cables) which may be required to supply power from the onshore HVDC converter/HVAC substation to the offshore wind farm in some HVDC system designs.
b	For the purposes of EIA, the length of the onshore cable route length has been rounded to 55km.

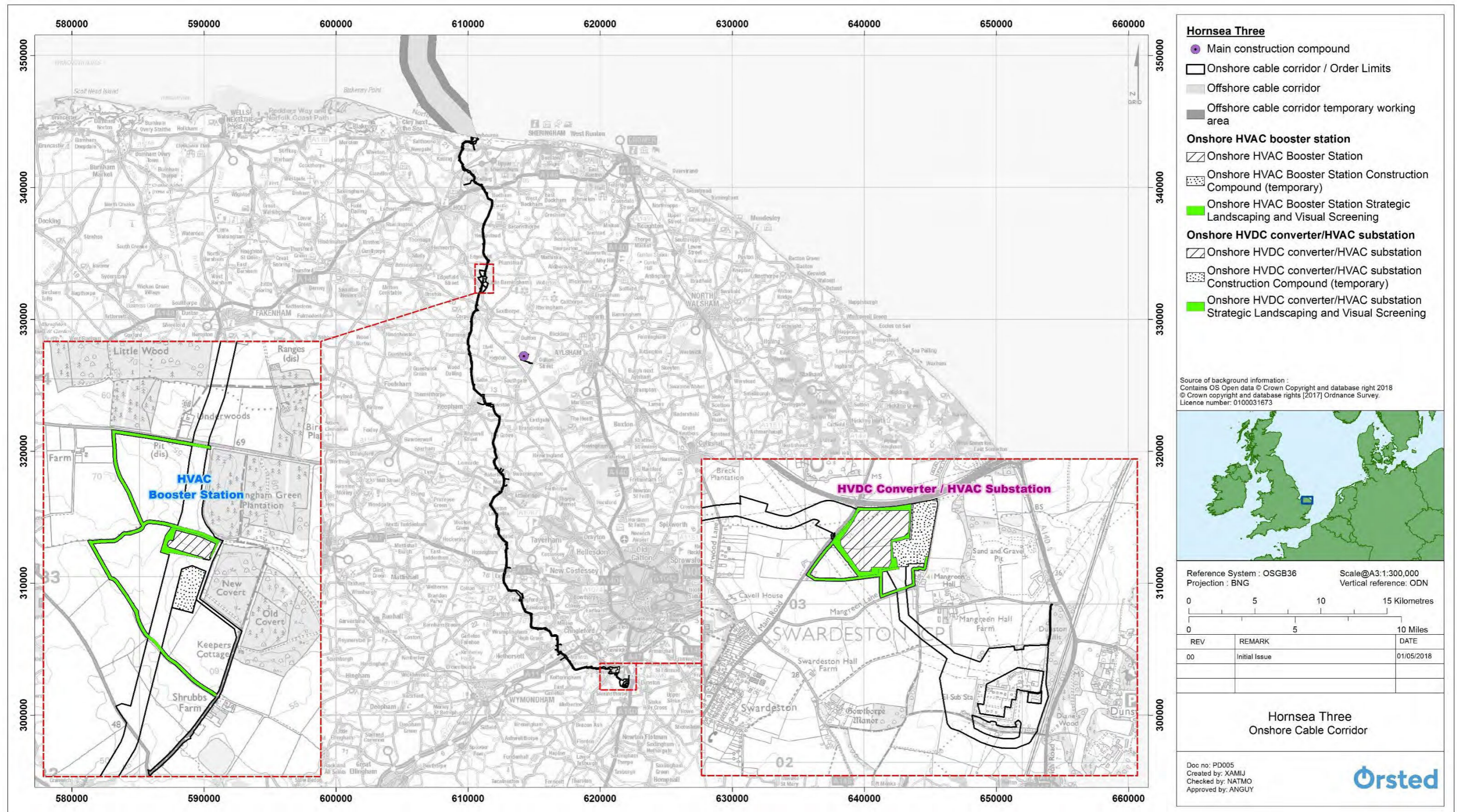


Figure 3.29: Hornsea Three onshore cable corridor and locations for onshore HVAC booster station and onshore HVDC converter/HVAC substation.

Installation

- 3.7.3.6** The cables will be installed within the Hornsea Three onshore cable corridor, with an expected width of 80 m (this includes both the permanent installation area and temporary working area). The layout for the Hornsea Three onshore cable corridor can be seen in Figure 3.32. The width of the permanent and/or temporary areas may change where obstacles are encountered.
- 3.7.3.7** The cables will be buried in multiple separate trenches (up to six trenches, each containing one circuit), however in some circumstances some trenches may be combined to aid installation. The total combined numbers and volumes will not exceed those stated in Table 3.56. The onshore export cables will typically be installed in sections of between 750 and 2,500 m at a time, with each section of cable delivered on a cable drum from which it is spooled out as it is installed. The installation of the onshore export cable is expected to take up to 30 months in total (excluding site preparation activities and reinstatement), however work is expected to progress along the export cable route with a typical works duration of three months at any particular location. Construction may be carried out by multiple teams at more than one location along the export cable route at the same time.
- 3.7.3.8** During construction of the cable trenches the topsoil and subsoil will be stripped and stored on site within the temporary working corridor of the Hornsea Three onshore cable corridor as construction of each linear section of the export cable route advances. The topsoil and subsoil will be stored in separate stockpiles as shown in Figure 3.27. Once the topsoil is stripped any required temporary haul roads will also be installed along the export cable route to allow trench excavation to take place. To ensure that soil is managed appropriately, the export cable route also includes a number of storage areas where additional land is provided for (see also paragraph 3.7.3.36).
- 3.7.3.9** The trenches will be excavated using a mechanical excavator, and the export cables will be installed into the open trench from a cable drum delivered to site via HGV. The cables are buried in a layer of stabilised backfill material that ensures a consistent structural and thermal environment for the cables. The maximum volumes of imported stabilised backfill material (i.e. that not originating from the excavated trench) are presented in Table 3.56. However, this value is considered to be a maximum and will not be required at most locations along the export cable route. All backfill from the trenches will remain on site.
- 3.7.3.10** The remainder of the trench is then backfilled with the excavated material. Hard protective tiles, protective tape and marker tape are also installed in the cable trenches above the cables to ensure the cable is not damaged by any third party. Once the onshore export cables are installed and the trenches backfilled, the stored topsoil will be replaced and the land reinstated back to its previous use. Each trench section between joint bays (JBs) (see paragraph 3.7.3.13) is expected to be open for approximately one week.

3.7.3.11 Alternatively, ducts can be installed in the trenches in the same manner as above, and the cables can then be pulled through the ducts from the JB's. This technique decouples the trenching from the cable installation and therefore can provide more flexibility for the installation process to optimise works and delivery of components. This installation method, however, results in poorer thermal characteristics, can constrain the later cable design and is slightly more expensive.

3.7.3.12 The dimensions of the export cable trenches are presented in Table 3.56 below. Within each trench or cable circuit the three cables of a HVAC circuit may either be installed in 'trefoil' or 'triangular' formation, whereby two cables sit side by side, with a third sitting above the two cables, or in flat formation where the three cables will all sit side by side at the same level in the trench. The two cables required for HVDC circuits will sit side by side in the trench. The circuits must be spaced out in order to minimise the mutual heating effect of one circuit on another, this enables the cables to effectively carry the large power volumes required without overheating and damaging the cable. The trench and cable layouts are presented in Figure 3.30 and Figure 3.31 below.

Table 3.56: Maximum design parameters for onshore export cable installation.

Parameter	Maximum design parameters
Trench width: at base (m)	1.5
Trench width: at surface (m)	5
Corridor width: permanent (m)	60
Corridor width: temporary and permanent (m)	80
Corridor area – permanent (m ²)	3,200,000
Corridor area – temporary and permanent (m ²)	4,300,000
Burial depth: target (m)	1.2
Burial depth: maximum (m)	2
Trench: depth of stabilised backfill (m) ^a	1.5
Total Installation duration (months)	30
a The average depth of stabilised backfill will be 0.6 m, with the depth going to 1.5 m in limited locations.	

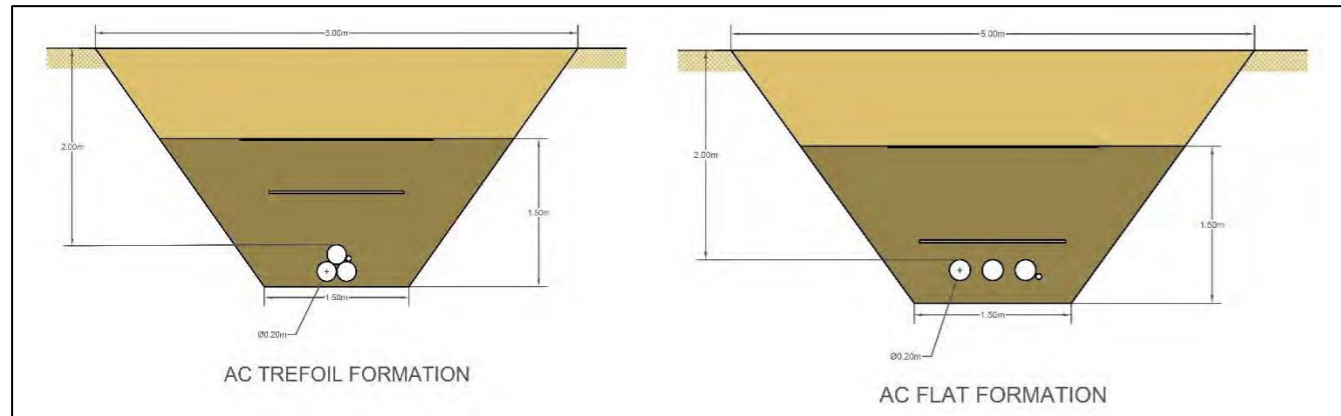


Figure 3.30: Onshore export cable HVAC trench layouts.

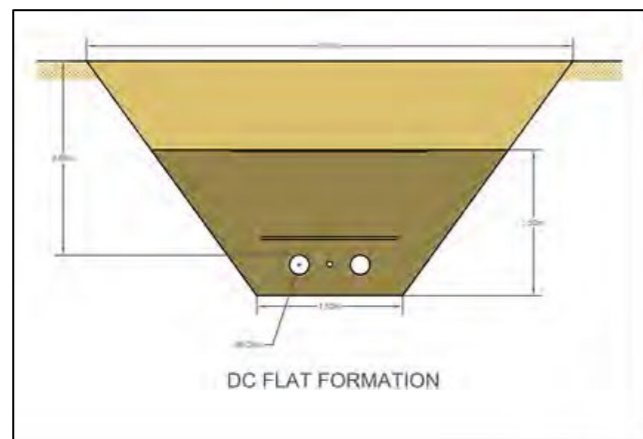


Figure 3.31: Onshore export cable HVDC trench layout.

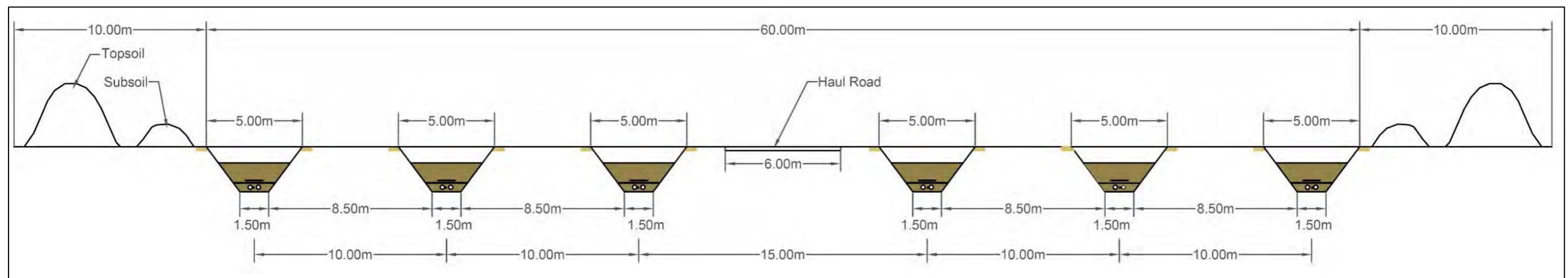


Figure 3.32: Onshore export cable corridor indicative layout showing the maximum of 6 onshore circuits.

Joint bays (JBs) and link boxes

3.7.3.13 JBs will be required along the Hornsea Three onshore cable corridor, these are typically concrete lined pits, that provide a clean and dry environment for jointing the sections of cable together. These are similar to those described in paragraph 3.6.12.3 above, but are typically smaller. As with the TJBs, these will likely be completely buried, with the land above reinstated. The maximum design parameters for JBs are presented in Table 3.57. JBs will only require access in the event of a cable failure requiring replacement.

Table 3.57: Maximum design parameters for joint bays (JBs).

Parameter	Maximum design parameters
Number of JBs	440
Max distance between JBs (on one circuit) (m)	2500
Min distance between JBs (on one circuit) (m) ^a	750
JB width (m)	9
JB length (m)	25
JB area (m ²)	225
JB depth (m)	2.5
JBs - Total area (m ²)	99,000
Spoil volume per JB (m ³)	563
JBs - total spoil volume (m ³)	247,500
a Excluding JBs on either side of trenchless crossings where closer spacing may be required.	

3.7.3.14 Link boxes (LBs) will also be required along the Hornsea Three onshore cable corridor. These are smaller pits, compared to JBs, which house connections between the cable shielding, joints for fibre optic cables and other auxiliary equipment. Land above the link boxes will also be reinstated, however, they may need manhole covers for access during the operational phase. The maximum design parameters for LBs are presented in Table 3.58.

Table 3.58: Maximum design parameters for link boxes (LBs).

Parameter	Maximum design scenario
Number of LBs	440
Max distance between LBs (on one circuit) (m)	2500

Parameter	Maximum design scenario
Min distance between LBs (on one circuit) (m) ^a	750
LB dimensions (length & width) (m)	3
LB area (m ²)	9
LB depth (m)	2.0
LBs - Total area (m ²)	3,960
Spoil Volume Per LB (m ³)	18
LBs - Total Spoil Volume (m ³)	7,920
a Excluding LBs on either side of trenchless crossings where closer spacing may be required.	

Crossings

3.7.3.15 The onshore export cables will need to cross infrastructure and obstacles such as roads, railways and rivers. Hornsea Three will aim to undertake all major crossings, such as major roads, river and rail crossings using HDD or other trenchless technology. The detailed methodology for the crossings will be agreed with the relevant stakeholders such as third party asset owners, and other statutory stakeholders. Further detail on the crossing requirements along the route are provided in volume 4, annex 3.5: Onshore Crossing Schedule.

HDD

3.7.3.16 Hornsea Three will aim to undertake all major crossings, such as major roads, river and rail crossings using HDD or other trenchless technology. HDD involves drilling a long parabolic borehole underneath the obstacle using a drilling rig located beyond the obstacle in the Hornsea Three onshore cable corridor. The optimum design is for each drill to be carried out in a straight line, with pits dug at both ends of the planned drill to below the level required for the cable so the drilling rig can carry out the drill horizontally, and the ducts can be installed.

3.7.3.17 The process uses a drilling head controlled from the rig to drill a pilot hole along a predetermined profile based on an analysis of the ground conditions and cable installation requirements. This pilot hole is then widened using larger drilling heads until the hole is wide enough to fit the cable ducts. Bentonite is pumped to the drilling head during the drilling process to stabilise the hole and ensure that it does not collapse. Prior to the drilling taking place, an exit pit may be excavated passed the obstacle on the export cable route in order for the HDD profile and ducts to stop at the required installation depth for the cable.

3.7.3.18 Once the HDD drilling has taken place the ducts (within which the cable will be installed) are pulled through the drilled hole. These ducts are either constructed offsite, or will be constructed onsite along the export cable route, then pulled through the drilled hole either by the HDD rig or by separate winches.

3.7.3.19 The size of the HDD compounds is dependent on the amount of equipment that is required to construct the crossing, which in turn is primarily governed by the length of the HDD or its complexity. It is envisaged that only the major HDDs (i.e. typically greater than 200 m in length) will require a compound, which will be used to contain the drilling rig, equipment and the drill entry and exit pit. These compounds will be located within the Hornsea Three onshore cable corridor.

3.7.3.20 The HDD compounds will be provided with suitable surfacing, typically this will be constructed from stone in a similar way to the haul roads for the main cable laying activities. The compound will be secured by fencing and provided with lockable gates to control access where necessary. Appropriate drainage measures will be implemented to control surface run-off from the compound.

Open Cut

3.7.3.21 The onshore export cables will be mainly laid in open cut trenches. The trenches will be backfilled with material of adequate thermal resistivity, to dissipate the heat generated in the cables made of either native soil or stabilised material such as cement bound sand.

3.7.3.22 It may be preferable for certain crossings to be carried out as an open cut crossing, rather than a HDD. These crossings could range from smaller drains, gas and power distribution infrastructure and small roads, to high pressure gas pipelines.

3.7.3.23 For some sensitive infrastructure, such as high pressure gas pipelines the area around the pipeline must be carefully excavated by hand and the asset supported before installation of the cables below the pipelines can take place. This is preferred by some asset owners as visual confirmation of the integrity of the asset can be maintained throughout the works.

3.7.3.24 For smaller less sensitive infrastructure it can be quicker and less disruptive to make the crossings using open cut than undertaking the more onerous works required for HDD.

Field drainage

3.7.3.25 It may be necessary to install additional field drainage on either side of the cable trenches along the export cable route to ensure the existing drainage characteristics of the land are maintained during and after construction. These drains would be installed either by small trenching machines, open cut trenching or similar. Any drainage design would be agreed with landowners prior to construction. The maximum design parameters for the field drainage are presented in Table 3.59.

Table 3.59: Maximum design parameters for onshore cable route field drainage.

Parameter	Maximum design parameters
Number of drainage trenches	12
Pipe diameter (mm)	250

Parameter	Maximum design parameters
Trench width (mm)	500
Trench depth (mm)	1,200
Stabilised backfill depth (mm)	1,000

Access and haul roads

3.7.3.26 Access routes will be required from the public highway network at various places along the export cable route in order to access the construction works, as well as secondary construction compounds, storage locations and HDD points along the route that may be set-up in advance of the cable laying. These access routes will be up to 10 m wide, which provides space for careful storage of topsoil along the access route during construction period. Consideration has also been given to utilising existing access tracks. In these cases the width of the access road may be narrower as there is no requirement to store topsoil. The route and design of these access roads where they are located outside the 80 m working width of the cable corridor are shown on the Works Plans– Onshore (document reference number A2.4.2).

3.7.3.27 Access routes have also been provided to allow for monitoring of HDD operations. These access routes would only be used during the HDD operation by 4x4 vehicles and hence no physical works are required to prepare the access route. These accesses are typically 5 m wide and also make use of existing access where feasible.

3.7.3.28 Up to two temporary haul roads (being one per phase) will also be required that will run along the export cable route, in parallel to the export cables. Where there are obstacles that must be crossed by the haul roads, such as drainage ditches, temporary culverts or bridges may be installed. An indicative layout of the export cable route, showing the haul road, is presented in Figure 3.32. The maximum design parameters for the haul roads are presented in Table 3.60. Any sections of access road that are required to be constructed or widened would be a similar design to the temporary haul roads.

Table 3.60: Maximum design parameters for onshore cable access and haul roads.

Parameter	Maximum design parameters
Temporary haul road	2
Roadway width (m)	6
Roadway width – passing placed (m)	7
Roadway construction	Crushed aggregate on geo-textile, soil stabilisation or temporary trackway.
Aggregate depth (m)	1
Temporary culvert/bridge crossings length (m)	10

Parameter	Maximum design parameters
Temporary culvert/bridge crossings width (m)	6

Temporary construction compounds

- 3.7.3.29** Construction compounds of various sizes will also be required along the Hornsea Three onshore cable corridor, for laydown and storage of materials, plant and staff, as well as space for small temporary offices, welfare facilities, security and parking.
- 3.7.3.30** Construction compounds will also be required for crossings of other infrastructure to house operations such as drilling works. They will also be required around JB and LB construction. The hierarchy of construction compounds are summarised below and detailed in the Outline Code of Construction Practice (document reference number A8.5).

Main construction compound

- 3.7.3.31** A main construction compound will be required to support the construction of the onshore export cables. This would operate as a central base for the onshore construction works and would house the central offices, welfare facilities, and stores, as well as acting as a staging post and secure storage for equipment and component deliveries. It may be necessary to retain part of the compound during the commissioning stages of Hornsea Three. It is envisaged that each secondary construction compound will be in place for period of up to 30 months. The main construction compound will be removed and sites restored to its original condition when construction has been completed. The main construction compound is shown in Figure 3.29.
- 3.7.3.32** The site identified (Oulton Airfield, off the B1149 near Oulton Street) already comprises hard standing suitable for the temporary placement of site facilities (such as offices, briefing rooms, catering facilities, storage etc. typically housed in port-a-cabins) and to allow plant and materials to be stored safely and securely. Further details on the main construction compound are documented in the Outline Code of Construction Practice (document reference number A8.5).

Secondary construction compounds

- 3.7.3.33** The principal contractor will also require a series of secondary construction compounds which have been located strategically along the Hornsea Three onshore cable corridor. These would operate as support bases for the onshore construction works as the cable work fronts pass through an area. They may house portable offices, welfare facilities, localised stores, as well as acting as staging posts for localised secure storage for equipment and component deliveries. It is envisaged that each secondary construction compound will be in place for periods of up to three months per construction phase.

3.7.3.34 The secondary construction compound will be removed and the sites restored to their original condition when the work front in that locality has passed. The sites identified are typically currently in agricultural use. Details of surfacing required at each secondary compound will be determined by the principal contractor as it will be informed by their specific requirements and take into consideration the seasonal weather the compound will be subject to.

3.7.3.35 Each secondary construction compound will be constructed by laying a geotextile membrane or similar directly on top of the subsoil which will have stone spread over the top of it to a depth of approximately 400 mm (300 mm of 150 mm stone size c/w fine ballast and 100 mm of Type 1 clean stone) (final depth dependant on ground conditions and topography). Further details on the secondary construction compound are documented in the Outline Code of Construction Practice (document reference number A8.5).

Storage locations

3.7.3.36 The principal contractor will also require storage locations along the export cable route. These would operate as areas where some limited additional storage may be provided in addition to that land provided for along the 80 m temporary corridor. It is envisaged that each storage location will be in place for a period of one month per construction phase and the sites will be restored to their original condition when the work front has passed. The sites identified are typically currently in agricultural use and located in areas that cannot be used by the farmer during construction works because the cable installation works would temporarily restrict access. When required, topsoil will be cleared and retained onsite. Further details on the storage areas, including fencing and use are documented in the Outline Code of Construction Practice (document reference number A8.5).

General provisions

3.7.3.37 All construction compounds will be removed and sites restored to their original condition when construction has been completed, however it may be necessary to retain some compounds for slightly longer periods during the commissioning stages of Hornsea Three. New temporary roads or access tracks for construction traffic are likely to be required at various points along the export cable route, connecting compounds and construction sites to existing nearby roads. The maximum design parameters for construction compounds are presented in Table 3.61.

Table 3.61: Maximum design parameters for construction compounds.

Parameter	Maximum design parameters
Onshore route main compound size (m ²)	40,000
Number of major HDDs per construction phase	15
Number of total HDDs per construction phase	120

Parameter	Maximum design parameters
Major HDD compounds (length and width) (m)	70 ^a
HDD compound construction duration per compound (month)	1
JB Compounds dimensions (length and width) (m)	40 ^a
JB compound construction duration per compound (months)	1
Construction compounds dimensions (length and width) (m)	90 ^a
Construction compounds: area (m ²)	33,000 ^a
Construction compound use duration per compound (months)	30 ^a
<p>a These values should be considered realistic required dimensions for the proposed works for the purposes of this application for Development Consent, the actual dimensions will be dependent on the location and surrounding environment and may be larger than these values to optimise the use of each specific location.</p>	

3.7.4 Site preparation activities for the onshore HVDC converter/HVAC substation and onshore HVAC booster station

3.7.4.1 For both the onshore HVAC booster station and onshore HVDC converter/HVAC substation the installation works will be relatively similar.

3.7.4.2 Preconstruction activities will entail the preparation of the site and access roads, undertaken by removing vegetation – including shrubs and trees and stripping top soil and sub soils before introducing a capping layer of crushed stone and further layers to formation levels (i.e. down to the clay or sand layer below topsoil). This may include the completion of geotechnical surveys.

3.7.4.3 **To install the substation foundations a certain amount of ‘cutting’ and ‘filling’ of soil will be required** (i.e. soil removed from the site may be used to fill in the site after foundation installation). This will be determined at the detailed design stage.

3.7.4.4 A temporary working area will be instated adjacent to the onshore HVDC converter/HVAC substation and onshore HVAC booster station sites for the substation contractor prior to the start of the installation works and will be reinstated once all construction has been completed. This could include two to three storey offices, viewing platform up to 30 m, communication mast for internet communication, stores, delivery and offloading areas, welfare facilities, parking areas and security accommodation.

3.7.4.5 Most of the larger equipment to be installed will be delivered directly to its intended installation location.

3.7.4.6 **A security fence will be erected around the substation site and the contractor’s areas. Site lighting will only operate when required and will be directional to avoid unnecessary illumination.** Further details are documented in the Outline Code of Construction Practice (document reference number A8.5).

3.7.4.7 The civil engineering works will include:-

- Landscaping, including bunds, trees, and other planting, as agreed with the relevant stakeholders;
- An access road, leading from the public highway into the substation site;
- Foundations to structures and buildings;
- Plinths for equipment;
- Bunds for oil containment;
- The construction of plant buildings;
- Internal roads;
- A parking lot for use by maintenance staff;
- Perimeter substation fences;
- Infrastructure for water drainage and attenuation;
- Internal cable duct routes;
- Viewing platforms; and
- Oil interceptor scheme.

3.7.4.8 Construction management measures, including working hours, are documented in the Outline Code of Construction Practice (document reference number A8.5).

3.7.5 Onshore HVAC booster station

3.7.5.1 The onshore HVAC booster station would have the same purpose as an offshore HVAC booster station(s), as described in section 3.6.9 above, and contain similar equipment. An onshore HVAC booster station is required for HVAC transmission only; it is not required for HVDC transmission.

3.7.5.2 The onshore HVAC booster station comprises reactive compensation equipment to reduce the reactive power generated by the capacitance of the export cable in order to allow the power delivered to the National Grid to be useable.

Location

3.7.5.3 The site selection methodology for the onshore HVAC booster station is described in volume 1, chapter 4: Site Selection and Consideration of Alternatives. The location of the onshore HVAC booster station is shown in Figure 3.33 below.

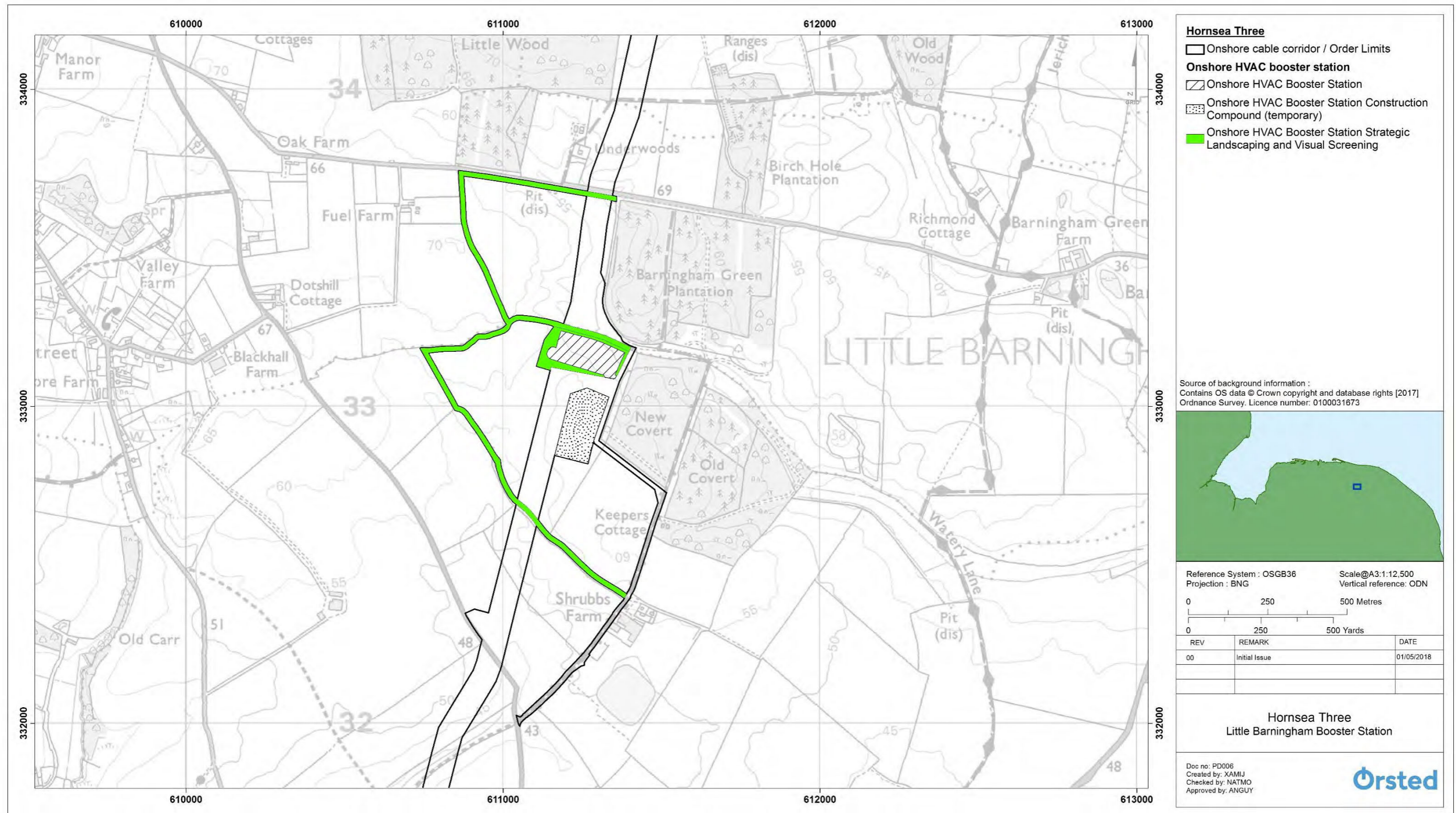


Figure 3.33: Onshore HVAC booster station location.

Design

- 3.7.5.4** The onshore HVAC booster station is primarily composed of high voltage electrical reactors to correct the power factor of the transmitted electricity, as well as switchgear that connect the reactors into the export cable circuits. The onshore HVAC booster station will also contain auxiliary equipment for running and controlling the onshore HVAC booster station, as well as structures to support and house the equipment. The equipment will either be housed within a single or multiple buildings, in an open yard or a combination of the above. There may also be some smaller buildings required to house components such as smaller equipment and control rooms. An underground area providing access for the export cables to enter the onshore HVAC booster station is also included in the design. An indicative layout for the onshore HVAC booster station is shown in Figure 3.34.
- 3.7.5.5** The maximum design parameters for the onshore HVAC booster station are presented in Table 3.62 below.

Table 3.62: Maximum design parameters for the onshore HVAC booster station.

Parameter	Maximum design parameters
Permanent area of site for all infrastructure (m ²)	30,407
Temporary area of site for construction works (m ²)	25,000
Single building ^a : length (m)	120
Single building ^a : width (m)	75
Number of buildings	6
Multiple buildings ^a : length per building (if six buildings) (m)	60
Multiple buildings ^a : width per building (if six buildings) (m)	40
Height of fire walls (m)	12.5
Building: height (m)	12.5
Maximum lightning protection height (m) (from ground level)	17.5
Underground cable access – depth (m)	5
Underground cable access – area (m ²)	6,000
Underground cable access – volume (m ³)	30,000
a The onshore HVAC booster station may comprise a single building or multiple buildings on the same site.	

Installation

- 3.7.5.6** The installation of the onshore HVAC booster station will require site preparation and enabling works as described in section 3.7.4 above. The final details of civil engineering works required will be identified as part of the final design of the onshore HVAC booster station.
- 3.7.5.7** A temporary working area will be installed adjacent to the onshore HVAC booster station which will be used to contain offices, stores, delivery and offloading areas.
- 3.7.6** Onshore HVDC converter/HVAC substation options
- 3.7.6.1** **Depending on which transmission option is selected, the “onshore HVDC converter/HVAC substation” will either be an HVAC substation or a HVDC converter substation. For the remainder of this section, when “onshore HVDC converter/HVAC substation” is used, it is taken to mean the onshore HVDC converter substation or the HVAC substation unless otherwise stated.**
- 3.7.6.2** The onshore HVDC converter/HVAC substation comprises a compound, containing equipment required to switch and transform electricity received from the windfarm to the voltage level for grid connection and to provide reactive power compensation, or containing equipment to convert HVDC electricity to HVAC electricity and housing auxiliary equipment and facilities for operating, maintaining, controlling the substation and to access the compound by vehicles and trucks.
- 3.7.6.3** The onshore HVDC converter/HVAC substation contains the electrical components for transforming the power supplied from the offshore wind farm to 400 kV and to adjust the power quality and power factor, as required to meet the UK Grid Code for supply to the National Grid. If a HVDC system is used it will also house equipment to convert the power from HVDC to HVAC.

Location

- 3.7.6.4** Hornsea Three will connect to the National Grid at the Norwich Main 400 kV substation, located between Swardeston and Stoke Holy Cross in South Norfolk. The Hornsea Three onshore HVDC converter/HVAC substation will also be located in this vicinity. The site selection methodology for the onshore HVDC converter/HVAC substation is described in volume 1, chapter 4: Site Selection and Consideration of Alternatives. The site for the onshore HVDC converter/HVAC substation is shown in Figure 3.35 below.

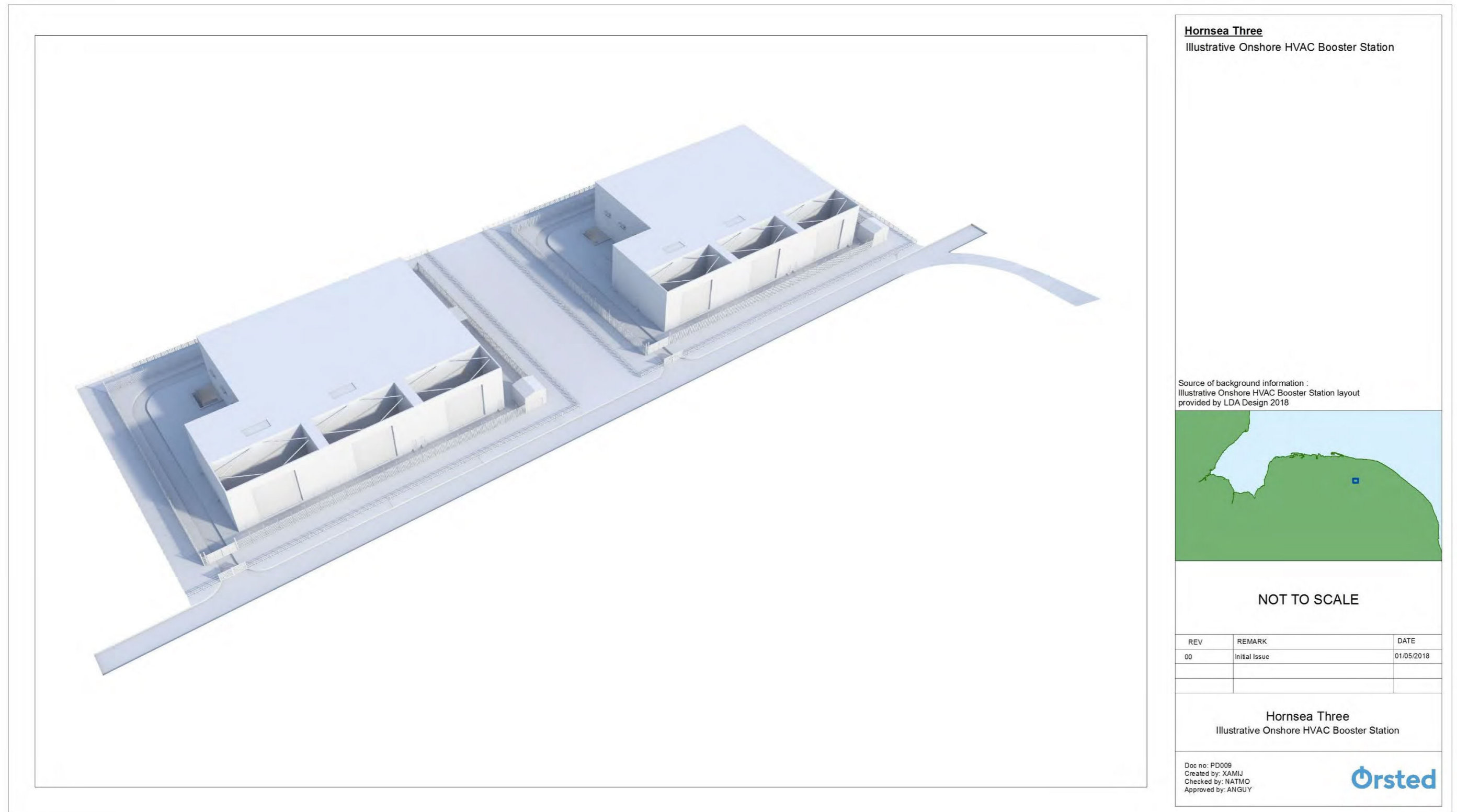


Figure 3.34: Indicative onshore HVAC booster station layout .

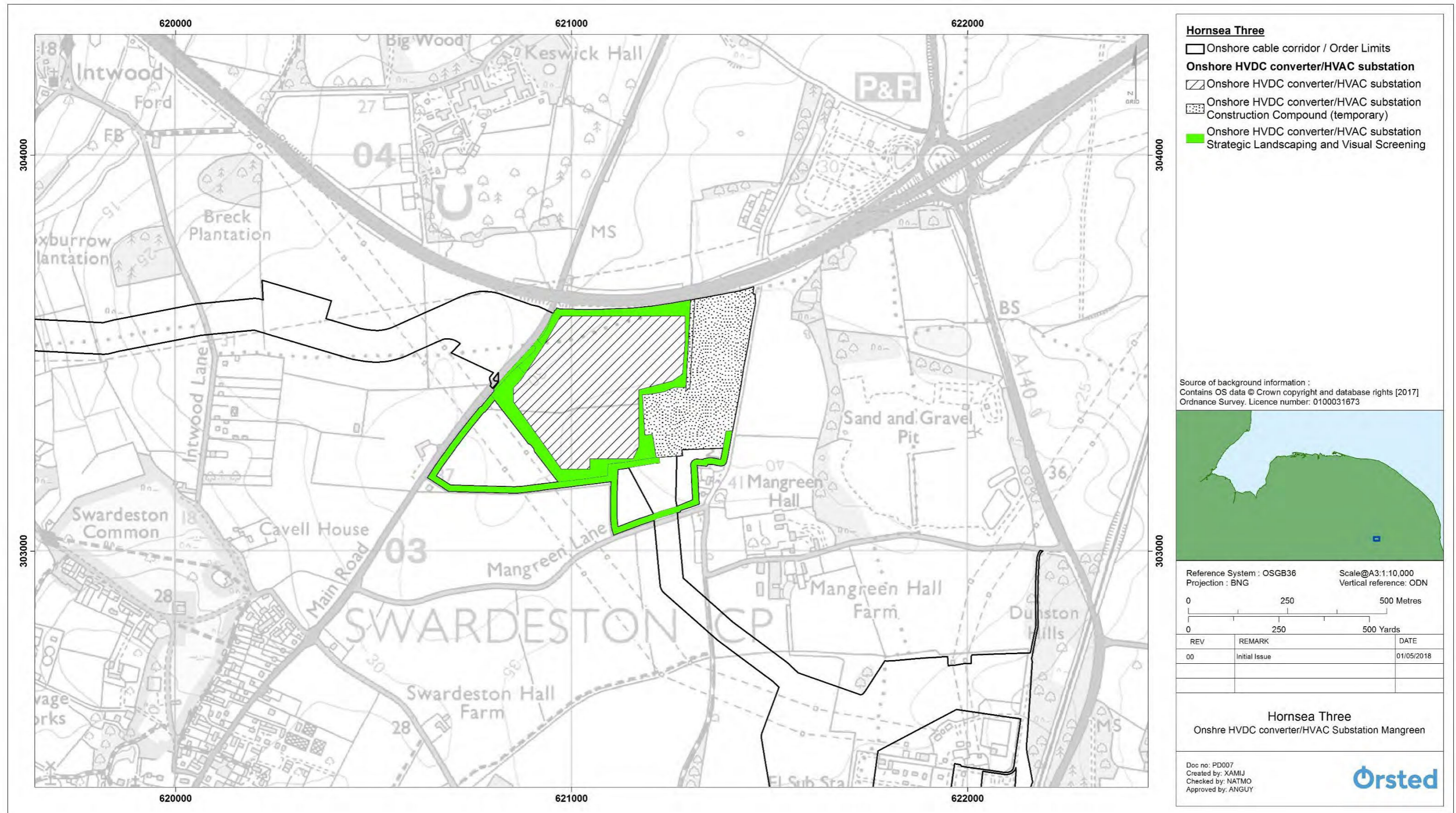


Figure 3.35: Onshore HVDC converter/HVAC substation location.

Design

3.7.6.5 The onshore HVDC converter/HVAC substation will consist of a range of equipment for delivery of the power to National Grid such as transformers, reactors, dynamic reactive power compensation plant (a Static Compensator (STATCOM)) filters and switchgear. It will also include a range of auxiliary and supporting equipment for the running and control of the onshore HVDC converter/HVAC substation. The main equipment will either be housed within a single or multiple buildings, in an open yard or a combination of the above. If multiple buildings are used the length and width of these buildings would be reduced proportionally to the number of buildings (e.g. if two buildings were used they would each cover half of the area required for the single larger building). There may also be some smaller buildings required to house components such as smaller equipment and control rooms. An indicative layout of a hybrid onshore HVDC converter/HVAC substation, developed for the purpose of informing the visualisations, is shown in Figure 3.37 below. The maximum design parameters for the onshore HVDC converter/HVAC substation for both HVAC and HVDC options are presented in Table 3.63 below.

Table 3.63: Maximum design parameters for the onshore HVDC converter/HVAC substation.

Parameter	Maximum design parameters
Permanent area of site for all infrastructure (m ²)	149,302
Temporary works area (m ²)	91,000
Maximum main building height (m)	25
Height of fire walls (m)	25
Main building - lightning protection height (m)	30
Viewing platform height [for construction] (m)	30
Duration of construction (months)	36
<i>HVAC Scenario</i>	
Maximum number of main buildings	3
Maximum length of main building (m) (if single building/if multiple buildings)	220/150
Maximum width of main building (m)	75
<i>HVDC Scenario</i>	
Maximum number of main buildings	2
Maximum length of main building (m)	220
Maximum width of main building (m)	75

Installation

3.7.6.6 The construction works for the onshore HVDC converter/HVAC substation are similar if using either the HVAC or HVDC solutions.

Site preparation, enabling works and civils works.

3.7.6.7 A compound will be set up that includes the permanent area required for the onshore HVDC converter/HVAC substation as well as a temporary working area required for storing and moving equipment and materials during the construction process. The topsoil of the site will be stripped and the site will be levelled as required. Civil works such as the laying of foundations and drainage, as well as the construction of buildings and supporting structures and systems will then be undertaken as required until the site is ready for the delivery of the electrical components.

Electrical component installation and reinstatement

3.7.6.8 The electrical equipment will then be installed and tested in readiness for the connection of the offshore wind farm and the National Grid substation. Once the construction of the onshore HVDC converter/HVAC substation is complete the site will be secured and the supporting infrastructure finalised in readiness for the operations phase. The temporary area will be reinstated once construction is complete. The construction works at the onshore HVDC converter/HVAC substation may take up to 36 months. The temporary site may include a temporary viewing platform to enable visitors and staff to safely oversee the construction without entering the construction area itself.

3.7.7 Grid connection export cable

3.7.7.1 A further section of buried onshore export cabling is required to connect the Hornsea Three onshore HVDC converter/HVAC substation with the existing National Grid substation at Norwich Main. The electrical export cables will enter the substation site and connect to the substation buildings. The electrical power will pass through the buildings and into the equipment in the yard. It will exit the site via underground 400 kV HVAC cables which will connect to the Norwich Main Substation.

3.7.7.2 This section of cabling will be similar in design to the onshore export cabling, but must be HVAC at 400 kV, and will have a maximum of four circuits, with a total of 12 export cables, installed within a 60 m cable corridor. The remaining parameters of this section of the route are included in that described in section 3.7.3 above. The cable layout for the grid connection export cable are shown in Figure 3.36 below.

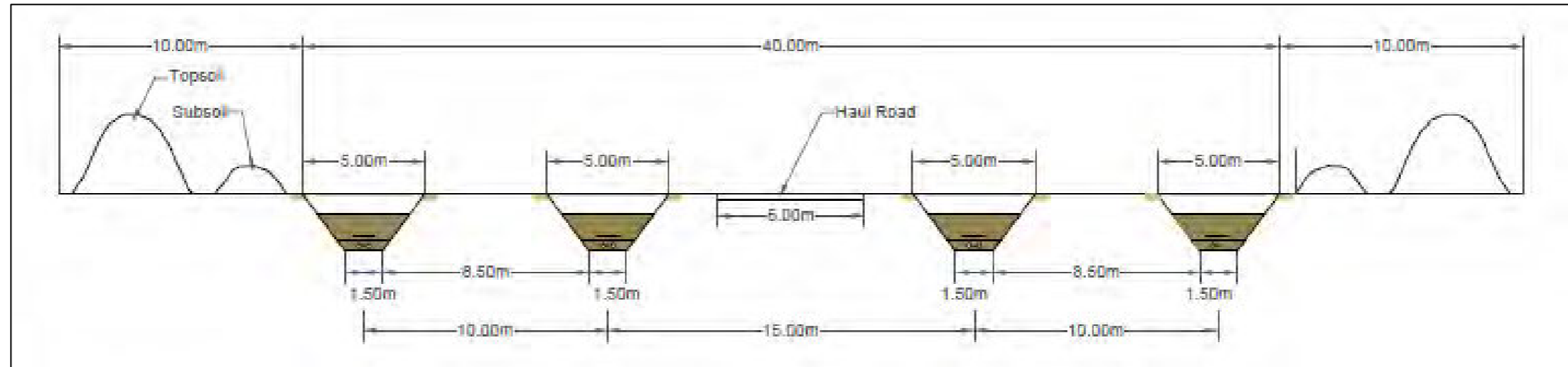


Figure 3.36: Grid connection export cable corridor indicative layout.



Figure 3.37: Indicative onshore HVDC converter/HVAC substation layout.

3.8 Construction Phasing

3.8.1.1 A high-level indicative construction programme where Hornsea Three is constructed in a single phase is presented in Figure 3.38 below. The programme illustrates the likely duration of the major installation elements, and how they may relate to one another if built out in a single phase construction campaign. It covers installation of the major components and does not include elements such as preliminary site preparation, and commissioning of the wind farm post-construction. Further details of where preliminary site preparation work will fit within the outline programme is discussed in sections 3.6.2 for offshore activities and 3.7.2 and 3.7.4 for onshore activities. Onshore construction is currently planned to commence in 2021 but could commence as early as 2020.

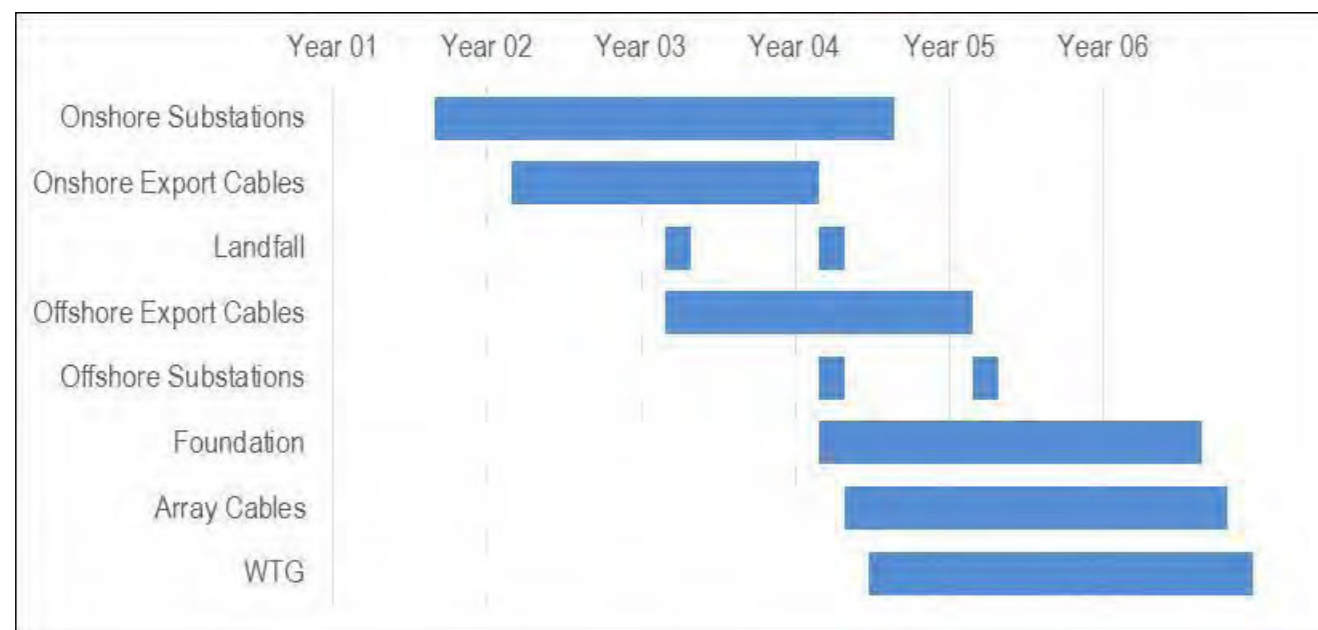


Figure 3.38: Indicative construction programme if Hornsea Three is built out in a single phase.

3.8.1.2 Hornsea Three may also be constructed in two phases, including the potential for an overlap or a gap between the completion of construction of one phase and the start of construction of another. However, if the construction activities of any phases are overlapping, the construction durations and total values for individual parameters will never exceed those stated for a single phase. For example with offshore works, no more than four monopile installation vessels would be in use at any time, and no more than two monopiles would be piled simultaneously, irrespective of any phasing described below.

3.8.1.3 It is possible that some activities may be carried out during the earlier phase for the benefit of the later one. However, any works completed for the later phase would be left in a safe state, as agreed with the relevant authorities, to await the appropriate phase for completion.

3.8.1.4 Figure 3.38 above shows an indicative programme for a single phase construction. Figure 3.39 shows an indicative construction programme where two phases are built out sequentially. These figures are provided to demonstrate indicatively how construction elements could be built out in one or two phases but still within total maximum design scenario durations presented for one phase. Phases could be sequential, fully or partially overlapping.

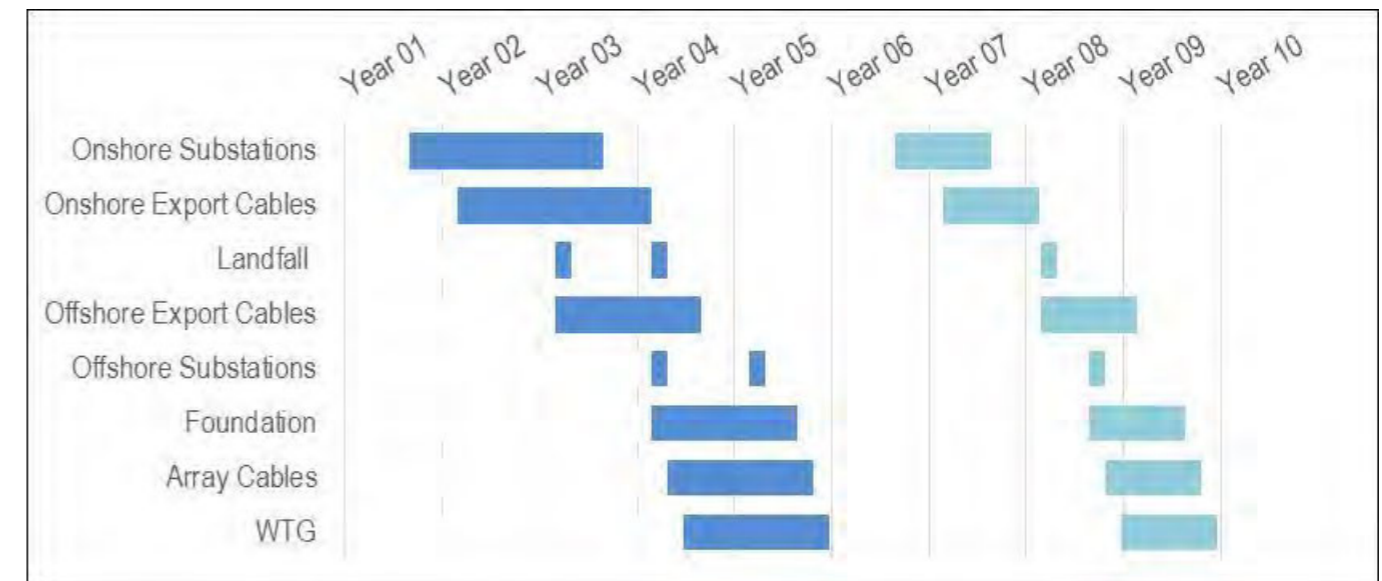


Figure 3.39: Indicative construction programme if Hornsea Three built out in two fully sequential phases.

3.8.1.5 Should Hornsea Three be built out in two phases, it is possible that these phases could be constructed directly after one another but it is also possible that there may be a gap between the construction of the phases. There are various possible reasons for this including, for example, constraints in the supply chain or the timing of auctions for the Government's Contract for Difference process which offshore wind farms currently rely on to secure a price for the electricity produced by a project. Consideration of a range of possible influences suggests a maximum gap between the same major project element in different phases (i.e. the end of piling of foundations for one phase and the start of piling of foundations on the next phase or the end of installation of onshore cables in one phase and the start of installation of onshore cables for the next) of up to approximately three years. For the onshore elements of the project, due to the maximum durations of each element of the construction works (i.e. maximum duration of construction for onshore substations is three years), this therefore means that the maximum duration over which construction of any one element (i.e. onshore HVAC booster station and onshore HVDC converter/HVAC substation) could occur would be six years, assuming a three year gap between the construction of the two phases.

3.8.1.6 The staggering of works offshore may be more complex to account for the lead in times for certain key elements. However, in a two phase scenario, all offshore works in the Hornsea Three array area would be carried out in an eight year window and all offshore works in the Hornsea Three offshore cable corridor (including the offshore HVAC booster station installation) would be carried out in an eight year window.

3.8.1.7 For the purposes of the EIA, the assessments have considered the following scenarios:

Onshore high intensity

- The maximum intensity of construction for the onshore HVAC booster station would occur if it was built in a single phase with a two-year duration;
- The maximum intensity of construction for the onshore HVDC converter/HVAC substation would occur if it was built in a single phase with a three-year duration;
- The maximum intensity of construction for the Hornsea Three onshore cable corridor would occur if it was built in a single phase within a 30 month (approximately 2.5 years) duration; and
- The maximum intensity of construction for Hornsea Three would occur if all components (onshore HVAC booster station, onshore HVDC converter/HVAC substation, export cable and intertidal works) were built simultaneously, or overlapping across multiple components. Onshore, this could result in a minimum duration of three years for all construction activities, although activities may be spatially distinct and would be preceded by pre construction activities such as borehole investigations at HDD crossing points.

Onshore long duration

- The maximum duration of construction for the onshore HVAC booster station is two years, this therefore means that the maximum duration over which construction could occur would be five years incorporating two phases (assuming a three-year gap with no active construction activity between the two phases);
- The maximum duration of construction for the onshore HVDC converter/HVAC substation is three years, this therefore means that the maximum duration over which construction could occur would be six years incorporating two phases (assuming a three-year gap with no active construction activity between the two phases);
- The maximum duration of construction for the Hornsea Three onshore cable corridor is 30 months (approximately 2.5 years), this therefore means that the maximum duration over which construction could occur would be 5.5 years incorporating two phases (assuming a three-year gap between the two phases). The work in each phase is expected to progress along the Hornsea Three onshore cable corridor with a typical active construction works duration of three months at any particular location; and
- The maximum duration of construction for all onshore elements of Hornsea Three would be eight years, which assumes construction across two phases with a three-year gap in-between, as a result of staggered construction of the components (onshore HVAC booster station, onshore HVDC converter/HVAC substation and Hornsea Three onshore cable corridor) and each phase would be preceded by pre construction activities such as borehole investigations at HDD crossing points.

Offshore high intensity

- The maximum intensity of construction in the Hornsea Three array area would occur if it was built in a single phase. In this case, the maximum durations for each activity would represent the maximum intensity (for example turbine installation would occur over 2.5 years); and
- The maximum intensity of construction for the Hornsea Three offshore cable corridor, including offshore HVAC booster station and intertidal works, would occur if it was built in a single phase. In this case, the maximum durations for each activity would represent the maximum intensity (for example export cable installation would occur over three years, preceded by pre construction activities such as sandwave clearance).

Offshore long duration

- The maximum duration of construction activities in the Hornsea Three array area would be eight years. This does not include pre-construction activities which would occur one to two years prior to construction;
- The maximum duration of construction activities in the Hornsea Three offshore cable corridor (including installation of the offshore HVAC booster stations and intertidal works) would be eight years. This does not include pre-construction activities which would occur one to two years prior to construction; and
- Within these timescales, construction of different elements is likely to be staggered as indicated in Figure 3.38 above.

3.9 Operation and maintenance

3.9.1 Description of operation and maintenance activities

3.9.1.1 The overall operation and maintenance strategy will be finalised once the operation and maintenance base location and technical specification of Hornsea Three are known, including turbine type, electrical export option and final project layout.

3.9.1.2 This section provides a description of the reasonably foreseeable planned and unplanned maintenance activities at Hornsea Three.

3.9.1.3 Maintenance activities can be categorised into two levels: preventive and corrective maintenance. Preventive maintenance will be undertaken in accordance with scheduled services whereas corrective maintenance covers unexpected repairs, component replacements, retrofit campaigns and breakdowns.

3.9.1.4 The offshore operation and maintenance will be both preventative and corrective. The operation and maintenance strategy could include either an onshore (harbour based) operation and maintenance base, or a fixed offshore operation and maintenance base (offshore accommodation platforms). Alternatively, a Special Operations Vessel (SOV), could perform the function of an offshore accommodation base and Crew Transport Vessel (CTV). The final strategy may also be a combination of the above solutions.

3.9.1.5 The general operation and maintenance strategy may rely on CTVs, SOVs, offshore accommodation, supply vessels, cable and remedial protection vessels and helicopters for the operation and maintenance services that will be performed at the wind farm. The maximum design parameters for the operation and maintenance activities are presented in Table 3.64 below. The total operational vessel and helicopter requirements for Hornsea Three are presented in Table 3.65 below.

3.9.1.6 Preventive maintenance of subsea cables including routine inspections to ensure the cable is buried to an adequate depth and not exposed. The integrity of the cable and cable protection system (i.e. bending restrictors and bend stiffeners) will also be inspected. It is expected that on average the subsea cables will require up to two visits per year for the first three years before being reduced to yearly thereafter. Maintenance works to rebury/replace and carry out repair works on array, interconnector, accommodation and export cables, should this be required.

3.9.1.7 No substantive maintenance is expected to be required on intertidal export cables. An indicative inspection regime could consist of one annually 'scheduled' inspection, plus further 'unscheduled' inspections following extreme events, such as large storms. Scheduled and unscheduled inspection activities will require a form of geophysical survey to be undertaken over the export cable route. This is likely to require two to three persons accessing the intertidal on foot or via small 4x4 vehicle (low ground pressure vehicles will be considered such as an ARGO) for a duration of approximately two to three weeks.

Table 3.64: Maximum design parameters for offshore operation and maintenance activities.

Parameter	Maximum design parameters
Operation and maintenance vessels - CTVs:	20
Operation and maintenance vessels - SOVs	4
Operation and maintenance vessels - supply vessels	Ad hoc
Helicopters: capacity (persons)	15
JUVs	Ad hoc
Onshore facilities area - offices (m ²)	2,500
Onshore facilities area - workshop and warehouse (m ²)	2,000
Harbour facilities – quayside length (m)	100
Operational hours	24 hours, seven days a week

Table 3.65: Maximum design parameters for offshore operation and maintenance activities. A single visit comprises a return trip to and from the Hornsea Three array area.

Parameter	Maximum design parameters
Helicopter wind turbine visits (per year)	4,300
Helicopter platform visits (per year)	371
Helicopter crew shift transfer (per year)	780
Helicopter total trips (per year)	4,671
Jack-up wind turbine visits (per year)	132
Jack-up platform visits (per year)	8
Jack-up total trips (per year)	140
Crew vessels wind turbine visits (per year)	2,433
Supply vessels accommodation platform visits (per year)	312

3.9.2 Details of operation and maintenance activities

3.9.2.1 This Development Consent Order (DCO) application has been informed by a screening exercise to identify the activities to be included in relation to the offshore operation and maintenance activities. This screening exercise involved developing a generic schedule of offshore operation and maintenance activities, which identified and described typical operation and maintenance activities for offshore wind farms. This process was informed by Ørsted experience from work on existing operation and maintenance projects and reference to other publicly available operation and maintenance Marine Licence applications and DCO applications. Details of those activities which require a licence and those that do not are provided in volume 4, annex 3.6: Offshore Operation and Maintenance Licensible Activities. The following section describes the processes and methods Hornsea Three would undertake for those activities for which a licence is required and for which consent is sought. This includes regular and scheduled operation and maintenance as well as unscheduled maintenance that is likely to occur. Maintenance due to unexpected occurrences have not been described here and are not included within the application for Development Consent. In addition, some activities which could be needed in the operation and maintenance phase of Hornsea Three have not been included in this application as it is considered that these would be best applied for at a later date, if needed, once specific details of the requirements are understood. These activities are detailed in volume 4, annex 3.6: Offshore Operation and Maintenance Licensible Activities.

3.9.2.2 During the operational life of Hornsea Three (anticipated 35 years), there can be a total of up to 16 vessels in the Hornsea Three array area on any given day. There can be up to eight vessels in the Hornsea Three array area that will operate in one 5 km by 5 km area at the same time with there being at most two 5 km by 5 km areas with this high level of vessel activity.

Offshore generation activities

Major wind turbine component replacement

3.9.2.3 This activity allows for the replacement of major wind turbine components, for example wind turbine blades, blade bearings, hub generators, yaw rings or nacelles (like-for-like or as within the project envelope). Works conducted under this activity would likely require a JUV supported by at least one CTV. There would be up to six visits for exchange events per turbine over the Hornsea Three lifetime.

3.9.2.4 The maximum design parameters for this activity are presented in Table 3.66 below.

Table 3.66: Maximum design parameters for major wind turbine component replacement.

Parameter	Maximum design quantity
Maximum number of exchange events – lifetime quantity	3,300
Footprint of seabed disturbance via jacking-up activities per exchange event (m ²)	1,020

Painting turbines

3.9.2.5 This activity includes the application of paint (e.g. Interseal) or other coatings to protect the turbine foundations from corrosion (internal/external). Technicians and equipment – largely hand tools - will be deployed from a CTV or similar vessel. Surface preparation is required to break down existing surface coatings and any associated corrosion.

3.9.2.6 There will be one full paint job per turbine every 10 years, and one touch-up paint job per turbine every three years. The maximum design parameters for painting turbines are presented in Table 3.67 below.

Table 3.67: Maximum design parameters for painting turbines.

Parameter	Maximum design quantity
Maximum number of full painting events – lifetime quantity	1,050

Bird waste removal

3.9.2.7 Marine growth and guano will be physically brushed off turbines by hand, using a brush to break down the marine growth/organic waste (where required) followed by high-pressure jet wash (sea water only). Technicians and equipment will be deployed from a CTV or similar vessel. Up to five cleaning events per turbine per year are planned.

3.9.2.8 The maximum design parameters for bird waste removal are presented in Table 3.68 below.

Table 3.68: Maximum design parameters for bird waste removal.

Parameter	Maximum design quantity
Maximum number of cleaning events – lifetime quantity	52,500

Cable remedial burial

3.9.2.9 This activity provides remedial burial of array cables that may have become exposed via natural sediment transport processes.

3.9.2.10 As-laid cable data will be reviewed to identify priority areas possibly requiring remediation. A multibeam sonar (or similar) will then be used to confirm the exact location and current cable burial depth and/or areas of exposure. Should any areas of exposed or insufficiently buried cables be identified, jetting equipment (i.e. mass-flow excavator (MFE) or similar) operated from a vessel, or diver operated injector fed from a dive platform mounted water-pump, will be powered up and manoeuvred along the exposed cable at a steady rate until the desired burial depth is achieved.

3.9.2.11 Once complete, a seabed survey will be conducted using a multibeam bathymetric survey system (or similar device) to determine the success of the operation. If necessary, another pass may be required to achieve the specified depth. As-buried data will be documented and only once all remedial works have been agreed will the vessel and associated equipment transit from the field to port for demobilisation.

3.9.2.12 The maximum design parameters for cable remedial burial are presented in Table 3.69 below.

Table 3.69: Maximum design parameters for cable remedial burial.

Parameter	Maximum design quantity
Maximum number of remedial burial events – lifetime quantity	17
Maximum length of cable subject to jetting remediation re-burial) per remedial burial event (km)	2
Maximum width of disturbed seabed per individual jetting event (m)	10
Maximum footprint of (temporary) seabed disturbance per individual jetting exercise (for cable remediation) (m ²)	20,000

3.9.2.13 Where rock protection has been employed during the construction phase, this may be replenished during operation. Up to 25% of the volume of cable protection presented in Table 3.46 will be replenished.

Array cable repairs

3.9.2.14 Failure of a cable system would be detected by the wind farm protection system. A cable fault would require location testing whilst off load using remote diagnostic techniques from the offshore substation or elsewhere onshore to identify the precise location of any fault along the cable length.

3.9.2.15 Where a fault is detected it may be necessary to expose the cable prior to recovery where testing will be conducted to establish the extent and type of repair required. The maximum design scenario (in terms of potential environmental impact) for Hornsea Three has been calculated based on full de-burial always being required.

3.9.2.16 Alternatively, a failed cable may be rectified by replacing the entire array cable.

Cable de-burial

3.9.2.17 De-burial of cable may be undertaken if localised sediment conditions and the existing burial depth of the cable permit. This activity may take between one and five days and involves the following key steps:

- If sediment conditions and/or existing burial depth were to permit, then the cable may be gently pulled free of the seabed via the offshore substation, turbine or a cable-handling vessel;
- If sediment conditions and/or burial depth of cable do not permit the process above, then de-burial will be required, involving use of either a MFE operated from a vessel, and/or diver operated injector fed from a dive platform mounted water-pump, or the use of a grapnel to pull the cable out.

3.9.2.18 If the cable fault is located within 200 m of the offshore substation, then it is likely it will be retrieved from the seabed to the offshore substation topside via winch and pulling from a nearby JUV. If the fault is more than 200 m from the offshore substation, it is likely it will be necessary to recover a section of cable either side of the fault, sufficient to enable a repair, which would comprise of two new joints connecting a new section of cable with the ends of the original cables.

3.9.2.19 Recovery of cable more than 200 m from the offshore substation will be performed by means of dynamically positioned (DP) vessel and/or anchor barge. A dive spread/platform will also be needed for this operation.

3.9.2.20 The exact length of cable exposed and recovered to a cable handling vessel will be proportional to three times the deepest tidal water depth at the location of the fault. The total length of cable exposed and replaced in any one repair event is unlikely to exceed 200 m.

Cable repair and replacement

3.9.2.21 A new section of cable will be jointed aboard the cable-handling vessel. Upon completion of repair works and the lowering operation from a DP vessel, the resting cable will be assessed to ensure it is in the correct position. The newly repaired cable is placed on, or as close to the original cable/trench as practicably possible.

Cable re-burial

3.9.2.22 If mechanical re-burial of the cable section is required, jetting with a MFE suspended approximately 1 to 2 m above the seabed will be conducted. These techniques do not permanently add or remove any material from the seabed and take place along the existing cable route where the sediment has previously been disturbed. This operation is expected to disturb no more than 2 m width of seabed sediment (maximum 7 m if the cable cannot be reburied in the original trench from where it was recovered initially).

3.9.2.23 Where jetting by MFE is not technically feasible, trenching could be undertaken with the use of a backhoe dredger. Both jetting and trenching by these methods would occupy a similar seabed footprint.

- 3.9.2.24** Exact rates of re-burial will vary depending on ground conditions and the final tool used, with a range of 100 to 250 m per hour. Re-burial of the average length of cable repair (100 to 200 m) is expected to take approximately three days.
- 3.9.2.25** Upon completion of re-burial, a post-burial survey will be carried out to assess whether the cable is at the correct position and required burial depth. During all the works, an advisory exclusion zone of 50 m around the cable and 500 m around all vessels involved in the works will be notified via Notice to Mariners.
- 3.9.2.26** The maximum design parameters for array cable repairs are presented in Table 3.70 below.

Table 3.70: Maximum design parameters for array cable repairs

Parameter	Maximum design quantity
Maximum number of cable repairs – lifetime quantity	300
Maximum cable trench width (m)	10
Maximum length of cable repair per event (km)	2
Maximum footprint of seabed disturbance per event (m ²)	25,000
Predicted duration of each cable repair event	Approximately three months
Footprint of seabed disturbance via jacking-up activities for single cable repair event (m ²)	1,020

Access ladder replacement

- 3.9.2.27** This includes the replacement of access ladders to wind turbine transition pieces due to damage or corrosion.
- 3.9.2.28** Access ladder replacement is likely to require a CTV or small JUV. Technicians and equipment will be deployed from a CTV or similar vessel. One ladder replacement event is planned per turbine every five years. The maximum design parameters for access ladder replacement are presented in Table 3.71 below.

Table 3.71: Maximum design parameters for access ladder replacement.

Parameter	Maximum design quantity
Maximum number of ladder replacement events – lifetime quantity	2,100
Footprint of seabed disturbance via jacking-up activities (m ²)	1,020

Turbine anode replacement

- 3.9.2.29** This includes the removal and replacement of anodes, which are required for corrosion protection (internal and external to the foundation). These sacrificial anodes, usually zinc, are fastened to an external structure. The metal erodes away preferentially and so protects the erosion of the turbine steel.
- 3.9.2.30** Anode replacement works are likely to be undertaken via divers from a dive support vessel. One turbine anode replacement event is planned per turbine every five years. The maximum design parameters for turbine anode replacement are presented in Table 3.72.

Table 3.72: Maximum design parameters for wind turbine anode replacement.

Parameter	Maximum design quantity
Maximum number of anode replacement events – lifetime quantity	2,100

Offshore Transmission Activities

Offshore substation component replacement

- 3.9.2.31** This includes the replacement of major components, for example transformers (like-for-like or as within consented envelope). These works would likely require a JUV supported by at least one CTV. The maximum design parameters for offshore substation component replacement are presented in Table 3.73 below.

Table 3.73: Maximum design parameters for offshore substation component replacement.

Parameter	Maximum design quantity
Maximum number of exchange events – lifetime quantity	32
Footprint of seabed disturbance via jacking-up activities for single exchange event (m ²)	1,020

Offshore substation painting

- 3.9.2.32** This includes the application of paint (e.g. Interseal) or other coatings to protect the offshore substation foundations from corrosion (internal/external). Technicians and equipment will be deployed from a helicopter, SOV, CTV or similar vessel. Surface preparation is required to break down existing surface coatings and any associated corrosion.
- 3.9.2.33** The maximum design parameters for offshore substation painting are presented in Table 3.74 below.

Table 3.74: Maximum design parameters for offshore substation painting.

Parameter	Maximum design quantity
Maximum number of painting events – lifetime quantity	19

Removal of organic build-up

- 3.9.2.34** Marine growth and guano will be physically brushed off offshore substations by hand, using a brush to break down the marine growth / organic waste (where required) followed by high-pressure jet wash (sea water only). Technicians and equipment will be deployed from a helicopter, SOV, CTV or similar vessel.
- 3.9.2.35** Five cleaning events per year per substation and accommodation platform over the lifetime of Hornsea Three are planned. The maximum design parameters for removal of organic build-up are presented in Table 3.75 below.

Table 3.75: Maximum design parameters for bird waste removal.

Parameter	Maximum design quantity
Maximum number of cleaning events – lifetime quantity	3,325

Export cable remedial burial

- 3.9.2.36** Remedial burial of export cables that may have become exposed via natural sediment transport processes is proposed via use of water jetting tools. This is an established technique for all subsea cables and one that is used for both remediation works, and as part of planned, post-lay burial campaigns.
- 3.9.2.37** As-laid cable data will be reviewed to finalise the areas requiring remediation. A multibeam sonar (or similar) will be used to confirm the exact location and current cable burial depth and/or areas of exposure.
- 3.9.2.38** The jetting equipment (i.e. MFE operated from a vessel or diver operated injector fed from a dive platform mounted water-pump), will be powered up and manoeuvred along the exposed cable at a steady rate; nominally 1 m per minute until the desired burial depth is achieved.
- 3.9.2.39** A seabed survey using a multibeam bathymetric survey system (or similar device) will be used to determine the success of the operation; if necessary another pass may be required to achieve the specified depth. As-buried data will be documented and only once all remedial works have been agreed will the vessel and associated equipment transit from the field to port for demobilisation.
- 3.9.2.40** The maximum design parameters for cable remedial burial are presented in Table 3.76 below.

Table 3.76: Maximum design parameters for cable remedial burial.

Parameter	Maximum design quantity
Maximum number of remedial burial events – lifetime quantity	2.5 events per export cable
Maximum length of cable subject to jetting remediation re-burial) per remedial burial event (km)	2
Maximum width of disturbed seabed per individual jetting event (m)	The higher of 10 m or 2 x water depth x 2,000 m length of cable
Maximum footprint of (temporary) seabed disturbance per individual jetting exercise (for cable remediation) (m ²)	5 x water depth by 2 x water depth

Export cable repairs

- 3.9.2.41** Failure of a cable system would be detected by the wind farm protection system. A cable fault would require location testing whilst off load using remote diagnostic techniques from the offshore substation or onshore substation to identify the precise location of any fault along the cable length.

Cable de-burial

- 3.9.2.42** Where a fault is detected it may be necessary to de-bury the cable prior to recovery where testing will be conducted to establish the extent and type of repair required. The maximum design scenario is assumed to be full cable de-burial.

3.9.2.43 De-burial of cable requiring repair may be undertaken if localised sediment conditions and the existing burial depth of the cable permit. This activity may take between one and five days and involves the following key steps:

- Electrical isolation of the cable and earthing;
- If sediment conditions and/or existing burial depth permit, then the cable may be gently pulled free of the seabed via the offshore substation, turbine or a cable-handling vessel;
- If sediment conditions and/or burial depth of cable do not permit the process above, then de-burial will be required, involving one of two methods:
 - MFE operated from a vessel, with the excavator head located approximately 2 m above the seabed. This method can achieve a penetration depth of 1 to 1.5 m at a width of 2 m; and/or
 - Diver operated injector fed from a dive platform mounted water-pump.

Cable recovery

3.9.2.44 If the cable fault is located within 200 m of the offshore substation, then it is likely it will be retrieved from the seabed to the offshore substation topside via winch and pulling from a nearby JUV. If the fault is more than 200 m from the offshore substation, it is likely it will be necessary to recover a section of cable either side of the fault, sufficient to enable a repair, which would comprise of two new joints connecting a new section of cable with the ends of the original cables.

3.9.2.45 Recovery of cable more than 200 m from the offshore substation will be performed by means of DP vessel and/or anchor barge. A dive spread/platform will also be needed for this operation.

3.9.2.46 The exact length of cable exposed and recovered to a cable handling vessel will be proportional to 1.5 times the deepest tidal water depth at the location of the fault. The total length of cable exposed and replaced in any one repair event is unlikely to exceed 200 m.

3.9.2.47 No seabed intervention is planned for this part of the operation as the cable will already have been exposed via the de-burial process outlined above. Cut and exposed cable ends will be sheathed and buoyed to the surface in preparation for the repair operation. The buoyed end will then be recovered onto the cable handling vessel for jointing.

Cable repair/replacement

3.9.2.48 A new section of cable will be jointed aboard the cable-handling vessel. Upon completion of repair works and the lowering operation from a DP vessel, the resting cable will be assessed to ensure it is in the correct position. The newly repaired export cable is placed on, or as close to the original cable/trench as practicably possible.

Cable re-burial

3.9.2.49 If mechanical re-burial of the cable section is required, jetting with a MFE suspended approximately 1 to 2 m above the seabed will be conducted. These techniques do not permanently add or remove any material from the seabed and take place along the existing cable route where the sediment has previously been disturbed. This operation is expected to disturb no more than 2 m width of seabed sediment (maximum 7 m if the cable cannot be reburied in the original trench from where it was recovered initially).

3.9.2.50 Where jetting by MFE is not technically feasible, trenching could be undertaken with the use of a backhoe dredger. Both jetting and trenching by these methods would occupy a similar seabed footprint.

3.9.2.51 Exact rates of re-burial will vary depending on ground conditions and the final tool used, with a range of 100 to 250 m per hour. Re-burial of the average length of cable repair (100 to 200 m) is expected to take approximately three days.

3.9.2.52 Upon completion of re-burial, a post-burial survey will be carried out to assess whether the cable is at the correct position and required burial depth. During all the works, an advisory exclusion zone of 50 m around the export cable and 500 m around all vessels involved in the works will be notified via Notice to Mariners.

3.9.2.53 The maximum design scenario for export cable repairs are presented in Table 3.77 below.

Table 3.77: Maximum design parameters for export cable repairs.

Parameter	Maximum design quantity
Maximum number of cable repairs – lifetime quantity	21
Maximum cable trench width (m)	10
Maximum length of cable repair per event (m)	200
Maximum footprint of seabed disturbance per event (m ²)	25,000
Predicted duration of each cable repair event	Approximately three months
Footprint of seabed disturbance via jacking-up activities for single cable repair event (m ²)	1,020

Replacement of offshore substation anodes

3.9.2.54 The removal and replacement of anodes, which are required for corrosion protection (internal and external to the foundation) will be required. These sacrificial anodes, usually zinc, are fastened to an external structure. The metal erodes away preferentially and so protects the erosion of the foundation. The replacement works are likely to be undertaken via a diver from a dive support vessel. The maximum design scenario for the replacement of offshore substation anodes are presented in Table 3.78 below.

Table 3.78: Maximum design parameters for replacement of offshore substation anodes.

Parameter	Maximum design quantity
Maximum number of anode replacement events – lifetime quantity	32

J-Tube repair/replacement

- 3.9.2.55** The offshore substation J-tubes occasionally require modifications or corrective maintenance, including alterations to the bell mouth of the J-tubes during a cable repair or replacement (e.g. cutting, re-welding). This work will be undertaken either by divers from a dive support vessel or using a jack-up barge. The maximum design parameters for J-tube repair/replacement are presented in Table 3.79 below.

Table 3.79: Maximum design parameters for J-Tube repair/replacement.

Parameter	Maximum design quantity
Maximum number of J-tube replacement events – lifetime quantity	32
Footprint of seabed disturbance via jacking-up activities per J-tube replacement event (m ²)	1,020

Onshore Activities

Onshore maintenance activities

- 3.9.2.56** The onshore operation and maintenance requirements for the export cables will be largely corrective (because there is limited requirement for preventative maintenance on the onshore cables), accompanied by infrequent on-site inspections of the onshore export cables. Onshore export cables will be consistently monitored remotely.
- 3.9.2.57** Operation and maintenance requirements for the onshore HVDC converter/HVAC substation and onshore HVAC booster station will be both preventative and corrective. The onshore infrastructure will be consistently monitored remotely, and there will be operation and maintenance staff visiting the onshore HVDC converter/HVAC substation and onshore HVAC booster station to undertake works on a regular basis, approximately **every six months. These visits will occur in a small technicians' van** via the established permanent access.
- 3.9.2.58** It is not expected that the TJBs will need to be accessed during the operation of Hornsea Three, however link boxes (see paragraph 3.6.5.10) will require access during the operational phase. These will have been reinstated following construction, but may have manhole covers for access. These visits will occur using a 4x4 vehicle.

3.10 Repowering

- 3.10.1.1** Although TCE lease for Hornsea Three is 50 years, the design life of Hornsea Three is likely to be 35 years. During this time, there may be a requirement for upkeep or reasonable improvement. Such maintenance is discussed in section 3.9 above, and is provided for within the DCO. If there are changes in technology, it may be **desirable to 'repower' Hornsea Three at or near the end of** the design life of Hornsea Three (i.e. reconstruct and replace turbines and/or foundations with those of a different specification or design.). If the specifications and designs of the new turbines and/or foundations fell outside of the maximum design scenario or the impacts of constructing, operation and maintenance, and decommissioning them were to fall outside those considered by this EIA, repowering would require further consent (and EIA) and is therefore outside of the scope of this document. At this time, it is not expected that repowering would require any removal of existing or installation of new offshore or onshore cables.

3.11 Security

- 3.11.1.1** Hornsea Three will be suitably secured throughout all phases of development to ensure those working on Hornsea Three can work in safety and the supply of electricity to National Grid remains secure. Any above ground onshore infrastructure such as the onshore HVDC converter/HVAC substation and onshore HVAC booster station will be housed in secure gated compounds, as will any ongoing construction work. The onshore export cables are buried and will not be accessible from the surface. Any accessible parts such as the link boxes will be accessible only through secure manhole covers.
- 3.11.1.2** The offshore infrastructure is by nature inaccessible due to being situated offshore.

3.12 Health and safety

- 3.12.1.1 All elements of Hornsea Three will be risk assessed according to the relevant government guidance as well as Ørsted internal best practise. These risk assessments will then form the basis of the methods and safety mitigations put in place across the life of Hornsea Three.
- 3.12.1.2 Ørsted has a focus on employee safety. Ørsted's **QHSE policy** ensures that Ørsted wind farms are safe by design and that the processes and procedures are adhered to. There is a clearly defined safety culture in place in order to avoid incidents and accidents.
- 3.12.1.3 There will be constant controls to ensure that the safety measures are observed and followed and Hornsea Three has built a safe workplace for its employees and contractors.
- 3.12.1.4 The focus on QHSE is intended to ensure that everyone feels safe, in a highly controlled and safety-driven environment. This is Hornsea Three's **first priority. It is done by closely monitoring all matters relating to health and safety on all Ørsted wind farms.**

3.13 Waste management

- 3.13.1.1 Waste would be generated as a result of Hornsea Three, with most waste generated during the construction of the offshore and onshore elements. In accordance with Government policy contained in NPS EN-1 (DECC, 2011a), consideration will be given to the types and quantities of waste that will be generated.
- 3.13.1.2 Procedures for handling waste materials are set out in volume 4, annex 3.4: Site Waste Management Plan (SWMP) and Outline Code of Construction Practice (document reference number A8.5).
- 3.13.1.3 The SWMP describes and quantifies each likely waste type and how it will be disposed of, reused, recycled or recovered in other ways during the construction stage of project. The SWMP also describes the management arrangements for the different waste types and identifies potential management facilities in the vicinity of the development. The available capacity of waste management facilities is taken into account where applicable.
- 3.13.1.4 Estimates for waste types and arisings from the construction of the onshore components are provided in the SWMP. These will be updated as further detailed design information becomes available prior to construction.

3.14 Decommissioning phase

- 3.14.1.1 At the end of the operational lifetime of Hornsea Three, it is anticipated that all structures above the seabed or ground level will be completely removed. The decommissioning sequence will generally be the reverse of the construction sequence and involve similar types and numbers of vessels and equipment. TCE AfL for Hornsea Three requires that the project is decommissioned at the end of its lifetime. Additionally, the Energy Act (2004) requires that a decommissioning plan must be submitted to and approved by the Secretary of State for Business, Energy and Industrial Strategy, a draft of which would be submitted prior to the construction of Hornsea Three. The decommissioning plan and programme will be updated during Hornsea Three's lifespan to take account of changing best practice and new technologies.

3.14.2 Offshore decommissioning

Turbines

- 3.14.2.1 Turbines will be removed by reversing the methods used to install them.

Foundations

- 3.14.2.2 Piled foundations would likely be cut approximately 2 m below the seabed, with due consideration made of likely changes in seabed level, and removed. This could be achieved by inserting pile cutting devices. Once the piles are cut, the foundations could be lifted and removed from the site. At this time, it is not thought to be reasonably practicable to remove entire piles from the seabed, but endeavours will be made to ensure that the sections of pile that remain in the seabed are fully buried.
- 3.14.2.3 Gravity base foundations could be removed by removing their ballast and either floating them (for self-floating designs) or lifting them off the seabed.

- 3.14.2.4 Any scour protection will be left in situ.

Offshore cables

- 3.14.2.5 Currently there is no statutory requirement for removal of decommissioned cables and removing buried cables is difficult.
- 3.14.2.6 **Exposed cables are more likely to be removed to ensure they don't become hazards to other users of the seabed.** At this time, it cannot be accurately determined which cables will be exposed at the time of decommissioning. Although it is expected that most array and export cables will be left in situ, for the purposes of this application for Development Consent it has been assumed that all cables will be removed during decommissioning, though any cable protection installed will be left in situ.

3.14.2.7 The removal of buried cables is not an operation for which there is much precedent. Therefore, at this time, it is difficult to foresee what techniques will be used. However, it is not unlikely that equipment similar to that which is used to install the cables could be used to reverse the burial process and expose them. Therefore, the area of seabed impacted during the removal of the cables could be the same as the area impacted during the installation of the cables. Divers and/or ROVs may be used to support the cable removal vessels.

3.14.2.8 Once the cables are exposed, grapples would be used to pull the cables onto the decks of cable removal vessels. The cables would be cut into manageable lengths and returned to shore.

3.14.2.9 Once onshore, it is likely that the cables would be deconstructed to recover and recycle the copper and/or aluminium and steel within them.

Hornsea Three intertidal area

3.14.2.10 To minimise the environmental disturbance during wind farm decommissioning the preferred option is to leave cables buried in place in the ground with the cable ends cut, sealed and securely buried as a precautionary measure.

3.14.2.11 Alternatively, partial removal of the cable may be achieved by pulling the cables back out of the ducts. This may be preferred to recover and recycle the copper and/or aluminium and steel within them.

3.14.3 Onshore decommissioning

Onshore export cable

3.14.3.1 To minimise the environmental disturbance during wind farm decommissioning the onshore export cables will be left in place in the ground with the cable ends cut, sealed and securely buried as a precautionary measure.

3.14.3.2 The structures of the jointing pits and link boxes will be removed only if it is feasible with minimal environmental disturbance or if their removal is required to return the land to its current agricultural use.

Onshore HVDC converter/HVAC substation and onshore HVAC booster station

3.14.3.3 The components of the onshore HVDC converter/HVAC substation and HVAC booster station have varying life expectancies. **Transformers typically have a useful life up to 50 years, and some components' lives can be extended beyond this period.** The case for decommissioning the onshore HVDC converter/HVAC substation and onshore HVAC booster station in the event of the wind farm being decommissioned will be reviewed in discussion with the transmission system operator and the regulator in the light of any other existing or proposed future use of the onshore HVDC converter/HVAC substation. If complete decommissioning is required, then all of the electrical infrastructure will be removed and any waste arising disposed of in accordance with relevant regulations.

3.14.3.4 Foundations will be broken up and the site reinstated to its original condition or for an alternative use.

3.15 References

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International Cable Protection Committee. ICPC Recommendation #1, Management of Redundant and Out-of-Service Cables, Issue 12B, 6 May 20113

APPENDIX 2

Energy and Climate Change Directorate
Energy Consents

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EDF Energy Renewables Limited
40 Grosvenor Place
Victoria
LONDON
SW1X 7EN

20 March 2020

Dear Sirs

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF AIRIGH WIND FARM, LOCATED 8.4 KM SOUTH WEST OF TARBERT, WITHIN THE PLANNING AUTHORITY AREA OF ARGYLL AND BUTE COUNCIL.

Application

I refer to the Application made on 31 August 2017 under section 36 of the Electricity Act 1989 (“the Act”) by EDF Energy Renewables Limited, a company incorporated under the Companies Act with company number 06456689 and having its registered office at 40 Grosvenor Place, Victoria, London SW1X 7EN (“the Company”), as supplemented by additional information in the form of Supplementary Environmental Information provided by the Company on 7 February 2019 (“SEI”) for the construction and operation of a wind powered electricity generating station comprising 14 turbines with ground to blade tip heights of the wind turbines numbered T1, T2, T3 and T13 not exceeding 131 metres, those numbered T9 and T14 not exceeding 138.5 metres and those numbered T4, T5, T6, T7, T8, T10, T11, T12 not exceeding 149.5 metres (“the proposed Development”) all as more particularly described in Annex 1. The generating station would have a nominal generating capacity exceeding 50 Mega Watts (“MW”).



This letter contains the Scottish Ministers' decision to grant section 36 consent for the Development as more particularly described at Annex 1.

Planning Permission

In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 the Scottish Ministers may on granting consent under section 36 of the Act for the construction and operation of a generating station direct that planning permission be deemed to be granted in respect of that generating station and any ancillary development.

This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.

Proposed Development and Site

The proposed Development is sited on land approximately 8.4km south west of Tarbert in Kintyre, Argyll & Bute. The site is located in a bowl-like area, within the Airigh and Radacal Forests, and is covered with forest plantations with a network of rides and tracks of varying accessibility. The existing forest plantations are mature and a few areas have been felled and some replanted.

Tarbert is the closest sizeable settlement with smaller settlements within approximately 15km of Killberry, Carse, Whitehouse, Clachan, Claonaig and Achnaoish. The site will be accessed from the nearest public road to the site, the A83 trunk road that runs along the length of the Kintyre Peninsula, running along the west coast of Loch Fyne to Tarbert then along the slopes south of West Loch Tarbert.

The proposed Development comprises of 14 wind turbines (with external transformers) with ground to blade tip heights of the wind turbines numbered T1, T2, T3 and T13 not exceeding 131 metres, those numbered T9 and T14 not exceeding 138.5 metres and those numbered T4, T5, T6, T7, T8, T10, T11, T12 not exceeding 149.5 metres with an installed capacity anticipated to be between 50.4 MW to 58.8MW.

Other key elements of the proposed Development include: up to 10 borrow pits, crane hard standings; underground electrical cabling; substation and control building; site signage; vehicle turning circles; approximately 30.4km of access tracks (of which 16km is existing track which will be upgraded and 14.4 km is new and includes the new site access and associated ancillary development.

Consultation, EIA Regulations and other Environmental Considerations

Under paragraph 2(1) of Schedule 8 to the Act, the relevant planning authority is required to be notified in respect of a section 36 consent application. Argyll and Bute Council ("Planning Authority") were duly notified. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EIA Regulations") the Company submitted an Environmental Impact Assessment report ("the EIA report") in support of the Application describing the proposed Development

and giving an analysis of its environmental effects. In accordance with requirements of both the Electricity (Applications for Consent) Regulations 1990 and the EIA Regulations, advertisement of the Application and the EIA report was made in the local and national press, and on the Company's application website, copies were placed in the public domain, and the opportunity given for those wishing to make representations to do so.

In addition, to comply with the EIA Regulations, Scottish Ministers require to consult the relevant planning authority, as well as Scottish Natural Heritage ("SNH"), the Scottish Environment Protection Agency ("SEPA") and Historic Environment Scotland ("HES") as well as other persons that are likely to be concerned by the proposed Development by reason of their specific environmental responsibilities. Notifications were sent to the Planning Authority as well as to SNH, SEPA and HES.

On 7 February 2019 the Company submitted additional information in the form of Supplementary Environmental Information ("SEI"), to support the EIA report relating to minor amendments to the location of some on-site infrastructure components and providing additional information requested by some of the consultees. Visualisations of an additional viewpoint and assessment from the northern end of the Isle of Gigha, additional visualisations for existing viewpoints showing darker turbines, updated cumulative ornithology assessment at natural heritage zone ("NHZ") level were provided in response to SNH comments, as well as an amended Forest Design Plan requested by Forestry Commission Scotland (now Scottish Forestry). There was also additional peat information detailing peat depths and an updated carbon report in response to RSPB comments, details of proposed new construction traffic access arrangements to bypass Tarbert via the B802, a minor application red line boundary change, copies of Memorandums of Understanding, assessment of effects of the proposed Development on climate change, major accidents and disasters and human health, and details of the amended description of the proposed Development.

In accordance with the EIA Regulations the SEI was advertised, placed in the public domain and opportunity was given to those wishing to make a representation.

Under paragraph 3(2) of Schedule 9 to the Act Scottish Ministers must have regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Scottish Ministers must have regard to the extent to which the Company has complied with its duty under paragraph 3(1)(b) requiring the Company to do what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites buildings or objects. Under paragraph 3(3) Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

In accordance with section 36(5A) of the Act, before granting any section 36 consent Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to protection of the water environment; and
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

SEPA's advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the proposed Development. In their consultation response to Scottish Ministers they direct the Company to the Regulations section of the SEPA website for advice on regulatory requirements and good practice advice.

Scottish Ministers are satisfied that the EIA report and the SEI has been produced in accordance with the EIA Regulations. Scottish Ministers have assessed the environmental impacts of the proposed Development and taken the environmental information, EIA report, SEI, representations, consultation responses including those from SNH, SEPA, HES and the Planning Authority into consideration in reaching their decision.

Scottish Ministers consider that there is sufficient information to allow them to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

Under paragraph 3(3) of Schedule 9 of the 1989 Act, Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to stock of fish in any waters. Scottish Ministers are satisfied that this is the case and more generally that the requirements of paragraph 3 have been met.

Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations and EIA Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the proposed Development.

Conservation of Habitats and Species Regulations

SNH in their response to Scottish Ministers advised of the connectivity between the proposed Development and the Knapdale Lochs Special Protection Area ("SPA") classified for its breeding black throated diver population, as Loch nan Torran is very close to the construction access tracks. Black-throated divers are highly susceptible to disturbance. Movements of vehicles and componentry have the potential to disturb or displace black-throated divers during the breeding season.

A Habitats Regulation Appraisal (“HRA”) has been carried out. The environmental information to inform the appraisal was presented in the EIA report which accompanied the Application. The HRA has therefore been produced using information already advertised in accordance with the EIA regulations.

Scottish Ministers conclude following advice from SNH, in view of the proposed conservation objectives of the Knapdale Lochs SPA, that if the proposed Development is undertaken in accordance with mitigating conditions requiring a construction methodology, including for traffic movement on tracks and roads, that avoids disturbance on black-throated divers on Loch nan Torran, then the integrity of the SPA will not be adversely affected by the proposed Development alone or in combination with other developments. Scottish Ministers have imposed a condition on the deemed planning permission, condition 12, requiring a Construction and Environmental Management Plan containing the aforementioned mitigation measures to be approved by the Planning Authority in consultation with SNH before development commences and to be thereafter implemented.

Public Inquiry

Paragraph 2 of Schedule 8 to the Electricity Act states if the relevant planning authority make an objection and that objection is not withdrawn, the Scottish Ministers must cause a public inquiry to be held unless the Scottish Ministers propose to accede to the application subject to such modifications or conditions as will give effect to the objection of the relevant planning authority. Following the consultation exercise, the Planning Authority did not object therefore a public inquiry is not a statutory requirement.

Paragraph 3 of Schedule 8 provides that where objections or copies of objections have been sent to the Scottish Ministers in pursuance of Regulations made under that paragraph, the Scottish Ministers must consider those objections together with all other material considerations with a view to determining whether a public inquiry should be held with respect to the application and, if they think it appropriate to do so, they must cause a public inquiry to be held.

West Kintyre Community Council objected to the proposed Development on the grounds that it would have visual impacts, cumulative impacts and an adverse effect on the vital tourist economy of the area.

Scottish Ministers have considered the aforementioned objection as well as the 15 public objections received and taking all material considerations and other consultation responses into account, consider that there are no significant issues which have not been adequately considered in the EIA report, the SEI and the consultation responses.

Scottish Ministers are satisfied there is sufficient information to be able to make an informed decision on the Application and that it would not be appropriate to hold a public inquiry.

Summary of the Consultation Responses

Statutory Consultees

Scottish Ministers were notified of the Planning Authority's initial objection to the Application on 13 February 2018. This objection followed a meeting of the Planning Protective Services and Licensing Committee (PPSLC) held on 9 February 2018. The objection cited significant adverse landscape and visual effects, including significant adverse visual effects on the appreciation of South Knapdale, and cumulative and visual effects, contrary to the guidance in Argyll and Bute's Landscape Wind Energy Capacity Study 2017.

The PPSLC were then asked to consider the SEI relating to minor amendments to the location of on-site infrastructure components, an assessment of the changes and the provision of further information requested by some of the consultees which was submitted by the Company in February 2019. The PPSLC met on 22 May 2019 and agreed again to raise an objection to the Application, updating their reasons stating the proposed Development would have 1) significant adverse effects on the appreciation of the South Knapdale Area of Panoramic Quality (APQ), 2) significant adverse strategic cumulative landscape impact, and 3) an unsatisfactory "jumbled" appearance due to variable levels of turbine heights in the layout. Scottish Ministers were formally notified of this objection on 23 May 2019.

At a final meeting of the PPSLC held on 21 August 2019 members were asked to consider a report by Planning Authority officials which provided clarification in respect of the consultee response from South Knapdale Community Council (SKCC) dated 16 May 2019 which had been submitted to Scottish Government's Energy Consents Unit and the Planning Authority. The report also advised members of a consultee response from Ardrishaig Community Council dated 16 April 2019 and sought confirmation from Members on whether they wished to maintain their objection to the proposed Development.

Following the meeting on 21 August 2019, Scottish Ministers were formally notified on 30 August 2019 of the Planning Authority's withdrawal of their objection to the proposed Development for the following reasons: -

- Landscape impact is minimised given that the site sits lower in the landscape due to the surrounding topography and as such it does not have a significant impact on the Upper Forest Moor Mosaic and the Rocky Mosaic character types;
- The location of the proposed Development is distant from visual receptors and as such the impact is minimised by this separation and as such it does not have a significant adverse visual impact on the appreciation of South Knapdale;
- The distance from existing wind farms is substantial which minimises the cumulative impact that can be perceived. Given that the proposed Development will sit in a bowl it will not extend the cumulative visual impact from Kintyre into Knapdale; and

- Given the compact footprint of the proposed Development site, the variable height of the turbines nevertheless creates a homogeneous grouping, which can be assimilated into the landscape having regard to the proposed layout of the turbines, it is considered that this clearly lessens the visual impact and does not give a jumbled appearance. As such, it is also considered that this is therefore fully acceptable in landscape terms, particularly from the viewpoint at Gigha North End which is approximately 14 km away.

The PPSLC advised in their final response, that given the points raised above, they had no objection to the proposed Development. They considered it to be consistent with the specified policies and guidance in the Local Development Plan.

The Planning Authority recommended that certain matters, set out as follows, should be addressed by Scottish Ministers by way of conditions to be attached to the grant of any planning permission: -

- Requiring the mitigation measures, detailed in the EIA report and SEI are implemented;
- Securing the appropriate mitigation to prevent disturbance to black-throated divers on Loch nan Torran (Knapdale Lochs SPA);
- Securing a Construction Environment Management Plan (CEMP);
- Securing a Conservation Management Plan (CMP);
- Securing a Breeding Birds Protection Plan (BBPP);
- Ensuring requirements for compensatory planting for any felling undertaken as part of the Development;
- Securing a Forest Plan;
- Requiring the control of noise immissions;
- Mitigation measures to secure the quality, quantity and continuity of private water supplies;
- Final details of substation and control building including external lighting;
- Secure appropriate aviation lighting as required by the Ministry of Defence (MOD);
- Conditions for traffic management and road safety as required by Transport Scotland and the Planning Authority's area roads engineer;
- Securing a Construction Traffic Management Plan (CTMP); and
- Conditions to secure the decommissioning of the Development to an acceptable standard, including associated ancillary infrastructure and site restoration.

Scottish Ministers have consulted with the Planning Authority and have imposed appropriate conditions at Annex 2 to address the aforementioned recommendations.

The Planning Authority also asked Scottish Ministers to consider requiring an independent tourism impact assessment of the proposed Development in their report dated 4 April 2019. Scottish Ministers have given consideration to the recommendation made by the Planning Authority in this decision letter under the heading "*Assessment of the Determining Issues*".

Scottish Natural Heritage (SNH) does not object to the proposed Development provided conditions are imposed to provide specific mitigation to safeguard the integrity of Knapdale Lochs SPA classified for its breeding black throated divers. The section of this letter headed “Conservation of Habitats and Species Regulations” sets out SNH’s advice regarding the requirements of the Habitats Regulations.

In their advice response to Scottish Ministers, SNH advised the proposed Development is contrary to the guidance set out in the Argyll and Bute Landscape Wind Energy Capacity study 2017 and as a consequence of the nature and scale of the proposed Development, it cannot be accommodated in its location without resulting in significant adverse landscape and visual effects including:

- Significant adverse landscape effects on parts of the Upland Forest Moor Mosaic (6b) and the small scale settled ‘Rocky Mosaic’ (20) landscape character types and associated seascape;
- Significant adverse visual effects from key viewpoints in particular coastal views and views from the sea where key routes, scattered settlement and recreation areas are concentrated;
- Significant adverse strategic cumulative landscape effect;
- Significant adverse cumulative landscape and visual effects; and
- Adverse effect upon the character, qualities and experience of the landscape.

SNH provided a further response following the submission of SEI in relation to their remit, which took account of the additional viewpoint from northern Gigha, the updated cumulative ornithology assessment at NHZ14 level and the proposed new construction assess arrangements. SNH remained of the view, detailed in their response dated 10 November 2017, that the nature and scale of the proposed Development cannot be accommodated in the location without significant adverse landscape and visual effects.

Additionally, SNH made a number of recommendations which have been considered by Scottish Ministers including consideration of track reinstatement options, mitigation to protect the Knapdale Lochs SPA and ecological matters in relation to invasive plant species.

Scottish Ministers have imposed appropriate conditions, set out in Annex 2, which give effect to the matters raised by SNH, particularly in respect of the mitigation measures required to secure the integrity of the Knapdale Lochs SPA.

Scottish Ministers note the concerns raised by SNH in the context of the landscape and visual impacts of the proposed Development and have given their consideration the concerns raised by SNH in this decision letter under heading “Assessment of the Determining issues”

Scottish Environment Protection Agency (SEPA) does not object but asks that their advice on site drainage, foul drainage, private water supplies, forest operations and

peat be noted. Scottish Ministers have attached appropriately worded conditions within Annex 2 which gives effect to this request.

Historic Environment Scotland (HES) does not object. Having reviewed the original EIA report and the SEI, HES are content that the proposed Development would not have a significant adverse effect on historic environment assets within their remit.

Internal Scottish Government advisors

Scottish Forestry (SF) - (formerly Forestry Commission Scotland) does not object, subject to the provision of a woodland forest plan and the provision of compensatory replanting of woodland in line the Scottish Government's Control of Woodland Removal Policy.

Scottish Ministers have attached appropriately worded conditions within Annex 2 which gives effect to this request.

Scottish Forestry are of the view that not all of the long term felling and restocking of woodland proposed by the Company is necessary for the construction and operation of the wind farm.

Scottish Ministers are satisfied that the Company has comprehensively considered the long-term management of forestry on the proposed Development site, detailing "best estimates" regarding the provision of future felling and re-stocking to satisfy compliance with current forestry standards which balances the operational requirements of the proposed Development with forestry, landscape and ecological issues. Nevertheless it is acknowledged that some phases of the felling/re-stocking proposed in the SEI Appendix 4.3 (Forestry) are not anticipated to commence until 2048. Having considered all phases of the forestry works set out in the SEI, Scottish Ministers consider that only the Forestry Works associated with phases 1 and 2 are strictly necessary for the construction and operation of the proposed Development and therefore only give planning permission for those phases, as described in Annex 1 of this consent. Any further forestry works, beyond that set out in phases 1 and 2, required for the long term management of the forestry, is not permitted by this consent and should be subject to the relevant permissions as necessary under the Forestry and Land Management (Scotland) Act 2018.

Marine Scotland does not object. It recommends the Company establish a robust water quality monitoring programme incorporating Marine Scotland Science guidelines.

Scottish Ministers have attached a condition within Annex 2 which gives effect to Marine Scotland's recommendation.

Transport Scotland does not object to the proposed Development subject to conditions in relation to abnormal loads on trunk roads; trunk road accesses layout and type (and method) of construction; additional signing or temporary traffic control measures; a Construction Traffic Management Plan (CTMP); drainage connections; HGV wheel washing and Decommissioning Plans.

Scottish Ministers have imposed planning conditions within Annex 2 to secure Transport Scotland's requirements.

Advisors to Scottish Government

A M Geomorphology reviewed the EIA report and advised that the peat stability assessment (PSA), required resubmission due to shortcomings in key elements of the assessment. Following the review of the SEI submitted by the Company they determined no further revisions were required.

Other Consultees

Ardriashaig Community Council does not object and supports the proposed Development.

Argyll Fisheries Trust does not object. They recommend the condition and connectivity of brown trout habitat on the site and its access routes are retained throughout and after the construction phase of the project. Scottish Ministers have attached a condition within Annex 2 which gives effect to this recommendation.

British Telecom does not object to the proposed Development.

Crown Estate Scotland does not object to the proposed Development, confirming that assets of Crown Estate Scotland are not affected.

Coal Authority does not object confirming the proposed Development site is located outside of the defined coalfield.

Defence Infrastructure Organisation does not object to the proposed Development subject to conditions to secure aviation safety lighting. They also require to be advised of the following prior to the commencement of construction:

- the date construction starts and ends;
- the maximum height of construction equipment; and,
- the latitude and longitude of every turbine.

Scottish Ministers have included planning conditions within Annex 2 to give effect to these requirements.

Fisheries Management Scotland (FMS) does not object to the proposed Development stating it falls within the district of the Argyll District Salmon Fishery Board, and the catchments relating to the Argyll Fisheries Trust.

Due to the potential for such developments to impact on migratory fish species and the fisheries they support, FMS have developed, in conjunction with Marine Scotland Science, advice for District Salmon Fisheries Boards (DSFBs) and Trusts in dealing with planning applications and strongly recommend that these guidelines are fully

considered throughout the planning, construction and monitoring phases of the proposed Development.

Glasgow Prestwick Airport does not object to the proposed Development.

Highlands and Islands Airports Limited does not object.

Joint Radio Company does not object as the proposed Development is cleared with respect to radio link infrastructure operated by The Local Electricity Utility and Scotia Gas Networks.

National Air Traffic Services (NATS Safeguarding) does not object.

RSPB Scotland does not object to the proposed Development, however they had concerns that some potential impacts may have been underestimated and sought clarification in relation to development of floating tracks and a list of peat depths at the proposed turbines and key infrastructure locations as referred to in Section 3: Peatland and Wider Habitat Management in their response dated 20 October 2017. Having reviewed the SEI submitted by the Company, RSPB made a number of recommendations in relation to black and red throated divers; golden eagles; black grouse and peatland considerations.

Scottish Ministers have taken account of RSPB comments. The planning conditions within Annex 2 include the requirement for a Breeding Birds Protection Plan (BBPP) and Construction Environmental Management Plan (CEMP)

Scottish Water does not object to the proposed Development.

Scottish Rights of Way and Access Society (ScotWays) made no comment to the proposed Development.

South Knapdale Community Council (SKCC) provided a detailed response to the consultations. SKCC advised that within their members, one group is supportive of the proposed Development, the other group objects to it and there is no clear, quantifiable majority view evident to SKCC. The group in support of the proposed Development made comments relating to community needs, local investments, community benefit income and/or shared ownership. The group against raised issues regarding the impact on South Knapdale's protected Area of Panoramic Quality (APQ); the setting of a precedent; the turbine height; ornithological concerns; it being contrary to Argyll and Bute Landscape Wind Energy Capacity Study; and the socio-economic impacts on businesses in the area.

In response to the SEI, SKCC confirmed that its original representation dated 18th October 2017 is not altered.

Visit Scotland does not object to the proposed Development. In general terms, without specific reference to the proposed Development, it highlighted the importance of tourism to Scotland's local and national economy on the natural landscape for

visitors and strongly recommends any potential detrimental visual, environmental or economic impact on tourism be identified and considered in full.

Visit Scotland ask that for each site considered, an independent tourism impact assessment should be carried out. This assessment should be geographically sensitive and should consider the potential impact on any tourism offerings in the vicinity. Visit Scotland would also urge consideration of the specific concerns raised relating to the impact any perceived proliferation of developments may have on the local tourism industry, and therefore the local economy.

Scottish Ministers have addressed this under “*Assessment of the Determining Issues*” of this decision letter.

West Kintyre Community Council provided a detailed response in objection to the proposed Development as a consequence of its visual impacts, the cumulative impacts and the adverse effect on the vital tourist economy of the area. They did not respond to the consultation on the SEI.

The following consultees did not respond: Vodafone; Civil Aviation Authority; Mountaineering Council of Scotland; John Muir Trust; Scottish Wildlife Trust; BAA Aberdeen; Nuclear Safety Directorate; British Horse Society; Scottish Wild Land Group; and Tarbert and Skipness Community Council.

Full details of the consultation responses are available on the Energy Consents website at www.energyconsents.scot

Scottish Ministers’ consideration of the landscape and visual concerns raised by consultees has been undertaken under “*Assessment of the Determining Issues*” of this decision letter.

Summary of Public Representations

Scottish Ministers received 4 representations from members of the public in support of the proposed Development and 15 representations from members of the public objecting to the Application.

Representation in support of the proposed Development state the following: the proposed Development will result in a boost to the local economy and will create local employment opportunities; have not found existing wind farms intrusive or noisy; environmental and economic benefit effects; general support.

The concerns raised within the objections are: wind is not a reliable resource; no local need, surrounded by turbines; scale of turbines not compliant; turbines despoil the landscape, violating the designation of the area as a “special beauty and scientific interest”; not wanted by locals and detrimental effect on tourism; visual effects-residents able to see tops of turbines, higher properties exposed to more of these turbines; carbon footprint; ornithological and ecological impacts; no way of storing

electricity; no local support; safety regarding access and traffic impacts; impacts on tourism and recreation; limited information to community.

The Policy Context

Climate Change and Renewable Targets

The seriousness of climate change, its potential effects and the need to cut carbon dioxide emissions, remain a priority of Scottish Ministers.

The Climate Change (Scotland) Act 2009, passed by the Scottish Parliament in 2009, sets out the targets for reducing greenhouse gas emissions as an interim 42% reduction target for 2020 and an 80% reduction target for 2050. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 (2019 Act) received Royal Assent on 31 October 2019 and sets a target for Scotland to be carbon-neutral, meaning net-zero CO₂, by 2045 at the latest. Additionally the Act set out two interim targets to reduce emissions by 75% by 2030 and by 90% by 2040.

The Scottish Government's 2020 Route map for Renewable Energy in Scotland published in June 2011 and updated in September 2015 confirms that the Scottish Government's target for renewable electricity generation is for renewables to generate at least the equivalent of 100% of gross annual consumption by 2020.

The Scottish Government's ambitions for renewables and the delivery of clean electricity in Scotland go beyond the current 2020 target. The Scottish Government has set a 2030 decarbonisation target, to achieve a carbon intensity of below 50 gCO₂/kWh of electricity generation in Scotland.

Published Energy Trends data showed Scotland has generated 21,688 GWh of renewable electricity generation in the first 9 months of 2019, up 23% from the same point in 2018. Scotland's overall renewable electricity capacity was 11.7 GW as of September 2019, up by 0.9 GW from September 2018. A further 12.9 GW of capacity is in the pipeline (i.e. either under construction, awaiting construction or in planning). This indicates that Scotland remains above the interim 2015 target of 50% suggesting that progress is being made towards achieving the target of 100% by 2020.

Scottish Ministers note not all consented schemes will progress to implementation for a variety of reasons however the proposed electricity generation capacity of the proposed Development will make a valuable contribution towards meeting national greenhouse gas emission and renewable energy targets.

Scotland's Third National Planning Framework (NPF3)

NPF3 is the spatial expression of the Scottish Government's economic strategy. It brings together plans and strategies across sectors to provide a coherent vision of how Scotland should evolve over the next 20 to 30 years. It sets out the Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology.

NPF3 sets out the strategic spatial policy context for decisions and actions by Scottish Government and its agencies, and all planning authorities are required to reflect this policy in their strategic and local development plans. Amongst its wide-ranging policies, NPF3 sets out the need for a strategy to reduce reliance on fossil fuels and emphasises not just the challenges in embracing a renewable and low carbon economy while protecting and sustaining environmental assets but also the wider benefits that this will bring, especially in employment creation. It also sets out that onshore wind will continue to make a significant contribution to diversification of energy supplies. In Scotland, there has been significant progress towards low carbon objectives whilst we have continued to protect our special places from significant adverse impacts.

NPF3 together with Scottish Planning Policy further sets out what is expected of the planning system, including a spatial strategy for low carbon place where an 80% reduction in greenhouse gas emissions is achieved by 2050.

Scottish Ministers are satisfied that the proposed Development makes a considerable and valuable contribution towards meeting greenhouse gas emissions and renewable electricity targets, as well as the diversification of energy supplies.

Scottish Planning Policy (SPP)

The Scottish Government supports onshore wind energy development in appropriate locations. SPP introduces a presumption in favour of development that contributes to sustainable development, setting out that policies and decisions should be guided by certain principles, including: giving due weight to economic benefits; supporting delivery of infrastructure, including energy, and; protecting natural heritage, including landscape and the wider environment. SPP also states that the planning system should support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity.

At paragraph 77 of SPP, it is set out that in remote and fragile areas and island areas out with defined small towns, in which this proposed Development would be sited, the emphasis should be on maintaining and growing communities by encouraging development that provides suitable sustainable economic activity, while preserving important environmental assets such as landscape and wildlife habitats that underpin continuing tourism visits and quality of place.

Paragraph 169 of SPP identifies a range of considerations which must be balanced to be able to reach an overall conclusion over whether renewable energy proposals, including onshore wind farms, are acceptable on a case by case basis. When considered as a whole, it is principally this balance which also determines whether or not a wind energy proposal would be a sustainable form of development. Consideration will vary relative to the scale of the proposal and area characteristics but are likely to include impacts on: landscapes and visual amenity; natural heritage; carbon rich soils; public access (including long distance walking, cycling and scenic

routes identified in NPF); historic environment; tourism and recreation; road traffic; adjacent trunk roads; the water environment (including flood risk); communities and individual dwellings; aviation; telecommunications; noise; shadow flicker; greenhouse gas emissions; and any cumulative impacts that are likely to arise.

Paragraph 169 also makes clear that, where relevant, the following should be a material consideration when considering an application: net economic benefit; the scale of contribution to renewable energy generation targets; opportunities for energy storage; the need for conditions relating to decommissioning and site restoration; and the need for robust planning obligations to ensure site restoration is achieved.

The proposed Development site (with the exception of approximately 3km of the access track which is in a group 1 area as detailed and addressed below in Assessment of the Determining Issues - Landscape and Visual Impacts) is situated within a Group 3 area as set out in Scottish Planning Policy spatial framework. These are areas with potential for wind farm development, where wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria.

Paragraph 170 further advises that areas identified for wind farms should be suitable for use in perpetuity. It sets out that consents may be time-limited but wind farms should nevertheless be sited and designed to ensure impacts are minimised and to protect an acceptable level of amenity for adjacent communities.

Scottish Ministers are satisfied that matters pertaining to SPP have been addressed in the Application, the EIA report, Additional Information and responses to the consultation by the Planning Authority, SEPA, SNH, HES and other relevant bodies. The range of considerations set out in paragraph 169 have been taken into account by Scottish Ministers before reaching their determination. On balance, it is considered that the proposed Development contributes to sustainable development. The site specific, determinative factors in respect of the proposed Development are considered in detail under the heading “*Assessment of the Determining Issues*”

Scottish Energy Strategy

The Energy Strategy sets out a vision for the future energy system in Scotland through to 2050. It sets out the priorities for an integrated system-wide approach that considers the use and supply of energy for heat, power and transport. The strategy sets out two new targets for the Scottish energy system by 2030 – (1) the equivalent of 50% of the energy for Scotland’s heat, transport and electricity consumption to be supplied from renewable sources; (2) an increase by 30% in the productivity of energy uses across the Scottish economy. The strategy provides a long term vision to guide energy policy decisions to tackle the challenges of decarbonising heat and transport in order to meet Scotland’s long term energy and climate change targets.

The Onshore Wind Policy Statement (OWPS) reaffirms the vital role for onshore wind in meeting Scotland’s energy targets. The statement sets out the Scottish Government’s position for the ongoing need for more onshore wind development and capacity in locations across Scotland where it can be accommodated.

OWPS also acknowledges that although the common assumption is that there is a 25 year life limit for the operation of a wind farm, there is no current statutory or legislative limits imposed on the duration of consent that may be granted. The operating period of every wind farm development is a matter which developers will consider prior to the submission of an application. In this case the Company has requested a 30 year limit on the consent to operate the wind farm.

Scottish Ministers are satisfied that the proposed Development will contribute to these strategic priorities.

Compatibility with Local Development Plan and Supplementary Guidance

Although the Planning Authority initially objected to the proposed Development, following further consideration they withdrew their objection in a final response to Scottish Ministers on the basis of the proposed Development being consistent with the specified policies and guidance in the Argyll & Bute Local Development Plan 2015.

Scottish Ministers accept and agree with the Planning Authority's view that the proposed Development is supported by the Local Development Plan and have imposed relevant conditions that have been agreed with the Planning Authority.

The Scottish Ministers Considerations

Main Determining Issues

Having considered the Application, the EIA report, the SEI, responses from consultees and third parties and Scottish Government policies, Scottish Ministers consider that the main determining issues are:

- the environmental impacts of the proposed Development, in particular the landscape and visual impacts, including cumulative effects;
- the estimated economic benefits which the proposed Development is likely to bring;
- the renewable energy benefits of the proposed Development; and
- the extent to which the proposed Development accords with and is supported by Scottish Government policies.

Assessment of the Determining Issues

Landscape and visual Impacts

The proposed Development is located within the Knapdale Upland Forest Moor Mosaic (UFMM) (6B) Landscape Character Type (LCT) identified in the Argyll & Bute Landscape Wind Energy Capacity Study 2017 (LWECS). The area in which the proposal is located forms the landscape backdrop to the coastal, small scale settled Rocky Mosaic LCT and to views across the scenic West Loch Tarbert area. The proposed Development lies within the western part of the area which is designated an

Area of Panoramic Quality (Knapdale APQ) and which also forms the backdrop to the adjacent Knapdale National Scenic Area (NSA).

Policy LDP 6 - Supporting the Sustainable Growth of Renewables of Argyll and Bute's Local Development Plan, Supplementary Guidance to the Argyll & Bute Local Plan 15' (2016) and SPP require applications for wind turbine developments to be assessed against any landscape and visual impacts.

The Company provided a full and detailed assessment of the landscape and visual impacts of the proposed Development in the EIA report, further supplemented by the SEI which has been considered by SNH and the Planning Authority before responding to Scottish Ministers on the proposed Development.

In landscape terms, taking account of the Planning Authority's Spatial Framework, the area of the site that encompasses the wind turbines is situated entirely within a Group 3 area as set out in Scottish Planning Policy spatial framework. These are areas with potential for wind farm development, where wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria.

Approximately 3km of the 30.4km of access track passes through a corner of the Knapdale NSA, a group 1 area where wind farms will not be acceptable. The access track follows the route of existing track infrastructure already situated within the National Scenic Area and whilst this means a small portion of the proposed Development falls within the NSA, Scottish Ministers agree with the Planning Authority's view as set out in Planning Official's Supplementary Report No 2 dated 4 April 2019, that this is not considered contrary to the spatial framework. As SPP and the resulting spatial framework focus specifically upon the wind turbine components (and tip height) the access track is not considered to conflict with the aims of the spatial framework or SPP and any effect on the National Scenic Area by the access track has been mitigated by routing and design.

SNH's View

SNH summarise in their response to Scottish Ministers their view that, "*the proposal is clearly contrary to the guidance set out in the Argyll & Bute Landscape Wind Energy Capacity Study (ABLWECS) commissioned jointly by SNH and Argyll & Bute Council in 2017. We consider that the nature and scale of the proposal cannot be accommodated in this location without significant adverse landscape and visual effects*" including;

- Significant adverse landscape effects on parts of the Upland Forest Moor Mosaic (6b) and the small scale settled 'Rocky Mosaic' (20) landscape character types and associated seascape;
- Significant adverse visual effects from key viewpoints in particular coastal views and views from the sea where key routes, scattered settlement and recreation areas are concentrated;
- Significant adverse strategic cumulative landscape effect
- Significant adverse cumulative landscape and visual effects; and

- Adverse effect upon the character, qualities and experience of the landscape.

SNH consider the turbines related to the proposed Development would be too large in relation to the distinct ridge between Stob Odhar and Meall Reamhar and in this location would significantly detract from the scenic views and experience of West Loch Tarbert.

The Planning Authority's View

The Planning Authority initially objected to and maintained their objection to the proposed Development as a consequence of its landscape and visual impacts being unacceptable, namely 1) significant adverse effects on the appreciation of the South Knapdale Area of Panoramic Quality (APQ), 2) significant adverse strategic cumulative landscape impact, and 3) an unsatisfactory “jumbled” appearance due to variable levels of turbine heights in the layout.

In their final response to the consultation they withdrew their objection for the following reasons:

- Landscape impact is minimised given that the site sits lower in the landscape due to the surrounding topography and as such it does not have a significant impact on the Upper Forest Moor Mosaic and the Rocky Mosaic character types;
- The location of the proposed Development is distant from visual receptors and as such the impact is minimised by this separation and as such it does not have a significant adverse visual impact on the appreciation of South Knapdale;
- The distance from existing wind farms is substantial which minimises the cumulative impact that can be perceived. Given that the proposed Development will sit in a bowl it will not extend the cumulative visual impact from Kintyre into Knapdale; and
- Given the compact footprint of the proposed Development site, the variable height of the turbines nevertheless creates a homogeneous grouping which can be assimilated into the landscape having regard to the proposed layout of the turbines, it is considered that this clearly lessens the visual impact and does not give a jumbled appearance. As such, it is also considered that this is therefore fully acceptable in landscape terms, particularly from the viewpoint at Gigha North End which is approximately 14 km away.

Other Views

The Scottish Ministers note that West Kintyre Community Council objected on the grounds of visual impact, cumulative impact and adverse effect on the vital tourist economy of the area. There were also 15 representations from members of the public citing their objection in relation to the landscape and visual impacts of the proposed Development, in particular that the scale of the wind turbines would despoil the landscape and violate the designation of the area as an area of “special beauty and scientific interest”.

Scottish Ministers also note however, the 4 representations made in support of the proposed Development as well as Ardrishaig Community Council's support and South Knapdale Community Council's neutral stance. Reasons cited for support included finding existing wind farms not to be intrusive.

Conclusions

A site visit was undertaken by Scottish Government officials to consider the Landscape and Visual Impact Assessment (LVIA), SNH's and the Planning Authority's response. The site visit, as well as providing an understanding of the area surrounding the proposed Development, incorporated visits to the following viewpoints:

Viewpoint 2: Carse Kirk Bridge, Viewpoint 3: Ardpatrik Road, Viewpoint 6: Spion Kop, Viewpoint 8: A83 South of Whitehouse, Viewpoint 9: Dun Skeig, Viewpoint 10: Ronachan Dun and Viewpoint 11: A83 Achnafad.

Officials also additionally visited Loup Jetty (near Loup Point) to help gain a better understanding of viewpoints (F1,F2,F3) - representative of views from Jura/Islay Ferries.

Landscape Character

The Knapdale Upland Forest Moor Mosaic (LCT)(6b) already accommodates the operational Allt Dearg and Srondoire wind farms. The Argyll & Bute Landscape Wind Energy Capacity Study (ABLWECS) identifies scope to locate large wind turbines in this landscape area type (LCT)(6b), in areas of lower, less complex landform set back from sensitive coastal edges and from higher more defined ridges and pronounced summits.

Scottish Ministers note SNH's view that the proposed Development may be contrary to some of the guidance set out in the ABLWECS. However whilst this study is generally acknowledged to be a material consideration, Scottish Ministers also acknowledge the study is strategic in nature and a more detailed LVIA of specific proposals also requires to be considered by consultees and determining authorities when reaching a decision on the acceptability or otherwise of wind farm development.

The Company's design approach has been to contain the turbines associated with the proposed Development within the defined bowl-like landform and to reduce visibility from the wider area with adjustments to turbine heights.

Scottish Ministers note the proposed Development is located within, and is visible from only the southern third of this LCT (6b). The proposed Development sits back from the sensitive fringes of the landscape area and well below the main ridges of Stob Odhar and Meall Reamhar. Scottish Ministers agree with the Company's view which identifies that the significant effects extend only a short distance of 1- 2km from the turbines. Visibility of the proposed Development is otherwise limited by topographic containment and blanket forest cover, beyond this the turbines may be visible but it is not considered they would change the character of the landscape. Scottish Ministers

therefore agree with the Planning Authority final view “that landscape impact is minimised given that the site sits lower in the landscape due to the surrounding topography and as such does not have a significant impact on the Upland Forest Moor Mosaic (LCT)(6b) or the Rocky Mosaic Character types.”

Areas of Panoramic Quality (APQ)

The proposed Development site lies within the southern part of the Knapdale/Melfort APQ. Scottish Ministers note the northern part (Melfort) has no visibility of the proposed Development. There are no citations for APQs but Scottish Ministers would agree with the LVIA conclusion “*given the title of the designation it follows that the reason for designation would include the availability of panoramic views*”.

Scottish Ministers note SNH comments “*the West Loch Tarbert area has high scenic value recognised in the designation of both Knapdale and the west coast of Kintyre as Areas of Panoramic Quality (APQ).*” In SNH’s view “*the proposed windfarm would have significant adverse impacts on the regionally distinctive landscape of West Loch Tarbert area; in terms of its landscape character and visual amenity, adversely affecting the experience of the landscape for both residents and tourists.*”

In an earlier notification of objection by the Planning Authority they said “*the proposal would be visible from West Kintyre, the northern part of Gigha (additional viewpoint 15) and extensively offshore. Views from these areas tend to focus on the arresting profile of Jura but south Knapdale forms part of an extensive panorama of little developed coast, settled fringes, forested and open uplands. It is considered that the proposal would be likely to incur significant adverse impacts on the appreciation of the area of Panoramic Quality in views from parts of North West Kintyre, from West Loch Tarbert and other offshore areas (principally from the Islay ferry but also from recreational sailing craft)*”.

Scottish Ministers agree with the Company’s view that the proposed Development will not affect the panoramic views out from the APQ. Scottish Ministers agree there would be significant adverse impacts on views towards the APQ, from the areas mentioned in the above paragraph. Significant impacts would occur on a short section of the ferry route from the north end of Gigha to West Loch Tarbert just north of Loup Point, but such impacts would diminish with distance. Scottish Ministers agree there would be no significant effects from the proposed Development for the remaining ferry route within West Loch Tarbert due to limited visibility of the Development. Scottish Ministers acknowledge the Planning Authority’s final view that “*the location of the proposed Development is distant from visual receptors and as such the impact is minimised by this separation and as such it does not have a significant adverse impact on the appreciation of South Knapdale*”.

The West Kintyre (coast) APQ lies 6km to the south of the site and extends from Loup Point to Kilchenzie. Viewpoint 9 Dun Skeig and Viewpoint 10 Ronachan are within this APQ.

Scottish Ministers note the proposed Development affects views north towards West Loch Tarbert, but from the panoramic view available from Dun Skeig, the proposed Development will be seen in a different direction than the focal feature of Jura, and will be set back from West Loch Tarbert.

With regard to viewpoint 10 Ronachan, Scottish Ministers agree with the statement in the LVIA conclusion “*that although the development will be visible from some parts of the coast it will be a peripheral feature in panoramas out to sea from some parts of the APQ.*”

Visual Effects

Scottish Ministers note that the proposed Development would be visible from the A83 which runs along the length of the Kintyre peninsula and across Argyll, is used by locals and tourists, including those wishing to travel by ferry to Islay/Jura and Gigha, and is valued for its scenic route as it runs through the West Kintyre APQ and Loch Fyne APQ.

Scottish Ministers note SNH, in summary, consider significant visual effects include:

- popular and scenic walking routes including the promoted long distance route – part of the Kintyre Way as represented by for example VP10 Ronachan and the walk to Dun Skeig as represented by for example VP9 Dun Skeig;
- coastal views and panoramas across West Loch Tarbert from the west coast of northern Kintyre, including areas popular for recreation e.g. Ronachan;
- offshore views from the sea (west Loch Tarbert area including views from Islay/Jura and recreational watercraft with effect reducing with distance); and
- Views from the minor routes e.g. Clachan area.

Scottish Ministers note Dun Skeig (VP9) is a prominent small hill on the south side of West Loch Tarbert noted to be frequented by occasional walkers and situated within the West Kintyre APQ. It affords a 360⁰ panorama, with views over West Loch Tarbert and out to sea. Scottish Ministers agree that the visual effects at this viewpoint are significant with 14 turbines visible. It is noted the bowl-like topography of the site means the forest changes as part of the construction and other infrastructure will not be visible however Scottish Ministers agree views to the northern part of this panorama towards West Loch Tarbert will be significantly affected. Scottish Ministers would agree with the LVIA that at this viewpoint the focal feature of Jura and outward views to the sea are not affected as these views are in a different direction from the wind farm.

Ronachan (Viewpoint 10) – Ronachan Fort is a small hill on the Kintyre coast, within the West Kintyre APQ. The Kintyre Way passes this location as it runs along the coast and visitors to this location are noted to be visitors to the coast and Kintyre Way walkers. Scottish Ministers note this is a well visited location with a parking space off the A83. Scottish Ministers agree with the view set out in the EIA report Chapter 6, paragraph 6.232-6.239 of the LVIA that the proposed Development, being located on lower ground beyond a ridge, will be partially screened such that most of the towers

will be hidden. The turbines will form a group of turbines set back from the coast at the periphery of the seascape panorama. Scottish Ministers acknowledge there will be a significant visual effect however agree with the LVIA that most viewers at this location are likely to focus on views to the west and south towards Jura and Gigha.

Islay /Jura Ferry (Viewpoint F1 – 3) Scottish Minister note these ferry routes are busy, being used by local people and tourists. The proposed Development is not visible from the Kennacraig ferry terminal, however as the ferry (and any recreational sailing crafts) continues through West Loch Tarbert blade tips on the forested horizon of the hills to the north of West Loch Tarbert will be visible. Scottish Ministers note these viewpoints represent locations where the proposed Development will be most visible. Scottish Ministers acknowledge there would be significant visual effects of the proposed Development between the north end of Gigha and West Loch Tarbert just north of Loup Point, however note the other sections of this route within West Loch Tarbert and further out to sea, effects will not be significant.

Scottish Ministers agree with SNH and the LVIA that there will be some significant adverse effects from viewpoint 9 Dun Skeig, viewpoint 10 Ronachan and on views from the Islay - Jura Ferry as represented by viewpoints F1-F3.

However, with regard to views from Gigha, Scottish Ministers note the LVIA states at this location is was judged to have a significant (moderate) visual effect however Scottish Ministers acknowledge the Planning Authority's final response which "*considered that this is therefore fully acceptable in landscape terms particularly from the viewpoint at Gigha north end which is approximately 14km away*".

In respect of the A83, visibility of the proposed Development would be intermittent with many views hidden by roadside vegetation, therefore effects would not be significant on those sections where the proposed Development would be visible from the A83.

Scottish Ministers agree with the Planning Authority's view in their response dated 4 April 2019 where they note "*The location of the proposed windfarm within a depression provides partial screening with the full height of the turbines often not seen in key views (it would be far more prominent if sited on the ridge of high open hills). Significant landscape and visual effects would be unlikely to be widespread being largely focused in the area of West Loch Tarbert*".

Cumulative Landscape and Visual Effects

Existing wind farms are located on the Kintyre Ridge, or on hills set back from Loch Fyne, or in the case of Allt Dearg and Strondoire wind farms on hills overlooking Loch Fyne, with most of the proposed wind farms also being located on the Kintyre Ridge.

Scottish Ministers note and agree with SNH that the high ridge between Stob Odhar to Meall Reamhar limits cumulative visual effects arising between this proposal and the operational Strondoire and Allt Dearg wind farms.

In SNH's opinion "significant adverse cumulative visual effects would occur from offshore for example, parts of Gigha, the sea and west Loch Tarbert as presented by for example the Islay – Jura ferry view (F2), where in combination with Freasdale wind farm, there would potentially be a "corridor" effect.

Scottish Ministers note the Planning Authority's final view that "the distance from existing wind farms is substantial which minimises the cumulative impact that can be perceived" which accords with the Cumulative Landscape Visual Impact Assessment (CLVIA) which identifies that due to the separation between the proposed Development and other proposed wind farms on the Kintyre Ridge, there will be no significant cumulative landscape or cumulative visual effects, and many effects remain as they were identified in the LVIA.

Scottish Ministers would agree that due to the design of the proposed Development in the landform, and its separation distance from existing and proposed windfarms, that it will not extend the cumulative visual impact from Knapdale into Kintyre.

Strategic Cumulative effects

The proposed Development is set in an area which is currently unaffected by large scale development.

Scottish Ministers note SNH's view that *"In strategic terms, the southern section of Knapdale is a key area which has not been developed for wind farms. The Proposed Airigh wind farm would result in the spread of the effects of wind farm development from the Kintyre peninsula where development is currently concentrated, across West Loch Tarbert to Knapdale."*

Scottish Ministers also acknowledge that one of the Planning Authority's reasons listed in their earlier objection cited Significant Adverse Strategic Cumulative Landscape Impact, stating *"The south Knapdale area between the high ridge of Stob Odhar to Meall Reamhar and West Loch Tarbert and west to the Kilberry area (and abutting the NSA) has a distinctive and scenic character which is unaffected by large scale development. While the richly scenic diverse coastal fringe of South Knapdale would not be dominated by this proposal (due to distance and partial/intermittent screening), the sense of this area being undeveloped and remote (principally appreciated in views across West Loch Tarbert, the NW Kintyre coast and the sea) would be significantly diminished."*

Scottish Ministers understand the Planning Authority's concerns, as set out in their response dated 4 April 2019, that a consent for this Development may open up the Knapdale area to a new wave of wind farm applications. Whilst Scottish Ministers acknowledge the scenic character of the area and note that the southern section of Knapdale is currently unaffected by large scale development, the proposed Development on its own would not dominate the richly scenic diverse coastal fringe of South Knapdale. Any potential for future development must be considered on its own merits, on a case by case basis.

Layout

Scottish Ministers note SNH's comments in relation to the poor design and layout of the proposed Development that "results in a poor layout and image from some locations as represented for example viewpoint 3". Scottish Ministers note this viewpoint is at Ardpatrik Road. The Planning Authority cited in an earlier objection that they "considered the layout of turbines at variable levels leads to an unsatisfactory 'jumbled' appearance evident in views from the south-west. In particular viewpoint 15 from Gigha north end, the layout of the proposed Development is unsatisfactory with turbines appearing muddled, which contributes to an adverse impact despite the viewpoint lying some 14 km away."

Scottish Ministers acknowledge that from some of the viewpoints the variable height of wind turbines is not ideal however they are not sited on the very sensitive high ridges and are set down below the skyline. Scottish Ministers agree with the Planning Authority's final view "that the variable heights of the turbines clearly lessens the visual impact".

Other Environmental Impacts

Scottish Ministers note that Visit Scotland in their consideration of the proposed Development requested that an independent tourism impact assessment be carried out. West Kintyre Community Council in their objection raised concerns regarding adverse effect on the vital tourist economy of the area.

Scottish Ministers consider Chapter 13 of the EIA report sufficiently addresses tourism impacts and are satisfied that there will be negligible effects as a result of the proposed Development.

The Scottish Ministers also acknowledge that the Planning Authority did not object to the proposal on the grounds of impacts on tourism and recreation.

Economic Benefits

SPP advises that proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include, as well as a number of other considerations, net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.

The transition to a low carbon economy is an opportunity for Scotland to take advantage of our natural resources to grow low carbon industries and create jobs.

Scottish Ministers agree a key factor in attracting tourists to Argyll & Bute is the landscape and scenery. The potential tourism effects of the proposed Development have been considered in detail within Chapter 13 of EIA report with particular reference to the evidence available at the time of submission of the application on the potential

impact of wind farms on tourism, including a report by BiGGAR Economics Ltd undertaken in 2016 and VisitScotland survey (2011). BiGGAR Economics have since provided a follow up Methodological Critique of the Report “Wind farms and Tourism Trends in Scotland” revised version dated October 2017. There is nothing in the critique report to suggest that the position relating to the impact of turbines on tourism has changed.

None of this suggests that wind farms are likely to have a significant detrimental effect on tourism, nor consequently on the economic benefits of tourism.

The EIA report sets out the opportunities for job creation through the construction phase which is estimated to generate 6 permanent FTE (full-time equivalent) jobs. Once operational the Development will require a small team of personnel to service, maintain and operate with a further predicted 1 FTE job created during the life time of the Development (up to 30 years). It is likely that there will be some local employment generated as an indirect result of the construction of the proposed Development which would include supply chain spin-offs for local businesses and sub-contracted work relating to the transportation of construction workers and materials. Construction workers making use of local accommodation and other facilities would further benefit the local economy by spend in local hotels, B&Bs, shops and restaurants. The Company estimate additional indirect and induced employment generated by the construction of the Development is therefore 3.15 to 12.6 permanent FTEs. There will also be some local employment generated as an indirect result of the operation of the Development and this will be associated with induced employment effects resulting from increased household expenditure among those individuals who have gained employment both directly and indirectly as a result of operation of the Development. The Company estimates additional indirect and induced employment generated during operation of the Development is therefore 5.5 FTEs.

Whilst it is difficult to precisely quantify overall net economic benefits, given direct and indirect effects and timescales, Scottish Ministers are satisfied the proposed Development has the potential for significant positive net economic benefits both to the local community and Argyll and Bute more generally.

Renewable Energy Produced and Contribution to Targets and Carbon Payback

NPF3 is clear that planning must facilitate the transition to a low carbon economy, and help to deliver the aims of the Scottish Government’s Report on Proposals and Policies. Our spatial strategy facilitates the development of generation technologies that will help to reduce greenhouse gas emissions from the energy sector. Scotland has significant renewable energy resources, both onshore and offshore.

Policy Principles set out in SPP state that the planning system should:

- Support the transformational change to a low carbon economy, consistent with national objectives and targets, including deriving:
 - 30% of overall energy demand from renewable sources by 2020;

- 11% of heat demand from renewable sources by 2020; and
- the equivalent of 100% of electricity demand from renewable sources by 2020; and

- Support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity – and the development of heat networks.

The proposed Development makes a significant contribution towards meeting greenhouse gas emission and renewable electricity targets. The proposed Development will have a generating capacity between 51MW to 59MW based on current technology. The deployment of this amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target for the equivalent of 100% of Scotland's electricity demand to be met from renewable sources by 2020.

Carbon Payback

The carbon payback for the proposed Development has been presented in the EIA report using the approved carbon calculator. In overall terms the proposed Development, if built, would be expected to have a payback period of 3 years when substituting the energy generation against a Grid Mix source type, however, replacing Fossil Fuel Mix source type would result in a carbon payback period of 1.8 years

Whilst noting the limitations of any such calculations, the online carbon calculator provides the best available means by which carbon calculations can be provided in a consistent and comparable format.

The lowest estimate of installed capacity of 50.4MW is estimated by the Company. Approximately 117,683 mega-watt hours (MWh) of electricity would be produced annually once the Development is operational, which is enough to power the equivalent of 27,035 households in Scotland for a year. This would displace the equivalent of up to approximately 72,728 tonnes of CO2 emissions per year from conventional forms of electricity generation.

Scottish Ministers are satisfied that the proposed Development would provide carbon savings, and that these savings would be of an order that weighs in favour of the proposed Development.

Policy Support

Scotland's renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this proposed Development. NPF3, SPP, the Energy Strategy, and the Onshore Wind Policy Statement make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

The aforementioned NPF3 sets out Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology. In Scotland there has been significant progress towards low carbon objectives whilst we have continued to protect our special places from significant adverse impacts.

As previously set out, SPP contains guidance in respect of the granting of development consent for wind farm development. SPP is to be read and applied as a whole. It sets out overarching Principal Policies to be applied to all development and Subject Policies which set out guidance in respect of development management. An overarching principle of SPP is that the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost. This means that decisions and policies should be guided by certain principles including, among others, giving due weight to net economic benefit; supporting the delivery of infrastructure; supporting climate change mitigation and protecting natural heritage. The aims of these policies require to be considered and balanced when reaching a decision on applications for wind energy development.

Scottish Government's Energy Strategy and Onshore Wind Policy Statement (OWPS) sets out targets for the increase in the supply of renewable energy. The OWPS in particular reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development in locations across Scotland where it can be accommodated.

The proposed Development, if built, will contribute to renewable energy targets and towards reducing greenhouse emissions. Economic benefits to the Scottish economy are anticipated alongside short and longer term benefits to the Argyll and Bute planning authority area.

Scottish Ministers acknowledge that there will be some significant landscape and visual impacts, however, Scottish Ministers are satisfied that overall the proposed Development is appropriately sited and designed. The landscape and visual impacts which remain are acceptable in the context of the benefits that the proposed Development will bring. Scottish Ministers are satisfied that other environmental issues can be appropriately addressed by the mitigation measures set out in the EIA report and SEI and secured by conditions.

The Scottish Ministers are therefore satisfied that the proposed Development is supported by national policies.

Conclusions

Reasoned Conclusions on the Environment

Scottish Ministers have fully considered the EIA report, the SEI and the consultation responses in respect of the proposed Development. The significant effects of the proposed Development on the environment are considered to be the landscape and visual impacts of the proposed Development. The Scottish Ministers are satisfied that other environmental issues can be appropriately addressed by the mitigation measures set out within each chapter of the EIA report and secured by conditions attached to the planning permission deemed to be granted.

Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion addresses the likely significant effects of the proposed Development on the environment. Scottish Ministers are satisfied that this reasoned conclusion is up to date.

Conclusions on Acceptability of the proposed Development

Scotland's renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this proposed Development. NPF3, SPP, and Energy Strategy make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

The National Planning Framework 3 (NPF3) sets out the Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology. NPF3 describes how, in our more remote areas, this will bring new employment, reverse population decline and stimulate demand for development and services, and also that onshore wind will continue to make a significant contribution to diversification of energy supplies. In Scotland there has been significant progress towards low carbon objectives whilst we have continued to protect our special places from significant adverse impacts.

SPP contains guidance in respect of the granting of development consent for wind farm development. SPP is to be read and applied as a whole. It sets out overarching Principal Policies to be applied to all development and Subject Policies which set out guidance in respect of development management. The aims of these policies require to be considered and balanced when reaching a decision on the Application.

In terms of Subject Policy: A Low Carbon Place, the merits of an individual proposal for a wind farm development are to be considered against a range of impacts. A non-exhaustive list of such considerations is given in paragraph 169. This paragraph sets out considerations which are to be taken into account when considering proposals for energy infrastructure development, including wind farms. These considerations include, along with the economic benefits and scale of contribution to renewable energy generation targets, the landscape and visual impacts of the proposed

Development and impacts on natural heritage. Scottish Ministers have had regard to those factors when considering this application.

Scottish Ministers in making their determination on the Application have had to balance these considerations, decide what weight is to be given to each, and reach a view as to where the balance of benefit lies.

Scottish Ministers consider the landscape and visual impacts are acceptable and are not of a level which would warrant a refusal of consent when weighed against the benefits of the electricity generation the turbines will produce.

Duration of Deemed Planning Permission

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission lapses if development has not begun within a period of 3 years. Section 58(2) of that Act enables Scottish Ministers to direct that a longer period is allowed before planning permission lapses.

Scottish Ministers consider that due to the constraints, scale and complexity of constructing such developments and the timeframes associated with the commissioning of grid infrastructure to connect them, a 5 year time scale for the Commencement of Development is appropriate in this case.

Scottish Ministers Determination

Subject to the conditions set out in Part 1 of Annex 2, Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for construction and operation of the proposed Development electricity generating station in the Argyll and Bute Council area (as described in Annex 1).

The consent hereby granted will last for a period of 30 years from the earlier of:

- i) The date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or
- ii) The date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted.

Subject to the conditions set out in Part 2 of Annex 2, Scottish Ministers direct under section 57(2) of the Town and Country Planning (Scotland) Act 1997 that **planning permission be deemed to be granted** in respect of the Development described in Annex 1.

The Scottish Ministers direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission because of the constraints of constructing or extending a generating station with a capacity of over 50MW within 3 years and that planning permission is to lapse on the expiry of a period of 5 years from the date of this direction if there has not been Commencement of the Development within that period.

In accordance with the EIA Regulations, the Company must publicise this determination on a website maintained for the purpose of making information publicly available and in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

Copies of this letter and the consent have been sent to the Planning Authority. This letter has also been published on the Scottish Government Energy Consents website www.energyconsents.scot

The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine Applications for consent. The rules relating to the judicial review process can be found on the website of the Scottish Courts –

<https://scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=20>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely

Redacted

[Redacted Signature]

Head of Energy Consents

For and on behalf of the Scottish Ministers

A member of the staff of the Scottish Government

Description of the Development

The Development comprises a wind powered electricity generating station known as Airigh Wind Farm with a generating capacity exceeding 50 MW, located 8.4km south-west of Tarbert in the Argyll and Bute Council planning area as specified in the Application and accompanying Environmental Impact Assessment Report submitted on 31 August 2017 and Supplementary Environmental Information submitted by the Company on 7 February 2019.

All as more particularly shown on plan reference SEI Figure 4.1 Site Layout appended to this decision letter and all as specified in the Application submitted by EDF Energy Renewables Ltd. The main components of the wind farm and related ancillary developments of the wind farm will comprise:

- Up to 14 turbines (including external transformers) with:
 - turbines numbered T1, T2, T3 and T13 at up to, but not exceeding, 131 metres in height (to blade tip); turbines numbered T9 and T14 at up to, but not exceeding, 138.5 metres in height (to blade tip); and turbines numbered T4, T5, T6, T7, T8, T10, T11, T12 at up to, but not exceeding, 149.5 metres in height (to blade tip).
- Crane hardstandings;
- Onsite underground electrical cables;
- Substation & Control building;
- Site signage;
- Vehicle turning circles;
- Approximately 30.4km of access tracks;
- 3 temporary construction compounds/laydown areas;
- Up to 10 borrow pits; and
- Phase 1 and Phase 2 of the Forestry Works associated with the Development.

Part 1

Conditions Attached to Section 36 Consent

The consent granted in accordance with section 36 of the Electricity Act 1989 is subject to the following conditions:

1. Notification of Date of Final Commissioning

Written confirmation of the date of Final Commissioning shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after that date.

Reason: *To allow the Planning Authority and Scottish Ministers to calculate the date of expiry of the consent.*

2. Commencement of Development

- (1) The Development shall be commenced no later than 5 years from the date of this consent, or such other period as the Scottish Ministers may direct in writing.
- (2) Written confirmation of the intended date of Commencement of Development shall be provided to the Scottish Ministers and the Planning Authority as soon as is practicable after deciding on such a date.

Reason: *To ensure that the consent is implemented within a reasonable period. And to allow the Planning Authority and Scottish Ministers to monitor compliance with obligations attached to this consent and deemed planning permission as appropriate.*

3. Non-assignment

- (1) This consent shall not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment, with or without conditions.
- (2) The Company shall notify the Planning Authority and Scottish Ministers in writing of the name of the assignee, principal named contact and contact details within fourteen days of the consent being assigned.

Reason: *To safeguard the obligations of the consent if transferred to another company.*

4. Serious Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent written notification of the nature and timing of the incident shall be submitted to the Scottish Ministers within twenty-four hours of the incident occurring, including confirmation of remedial measures taken and/or to be taken to rectify the breach.

Reason: *To keep the Scottish Ministers informed of any such incidents which may be in the public interest.*

Part 2

The planning permission deemed to be granted under section 57 of the Town and Country Planning (Scotland) Act 1997 for the Development described in Annex 1 is subject to the following conditions.

5. Implementation in accordance with approved plans and requirements of the section 36 consent

Except as otherwise required by the terms of this consent and deemed planning permission, the Development shall be undertaken in accordance with the Application and Environmental Information Assessment (EIA) Report dated 31 August 2017 as supplemented or amended by Supplementary Environmental Information submitted by the Company dated 7 February 2019 (including the approved drawings listed at Appendix 3 to this decision) including all mitigation and monitoring measures within and other documentation lodged in support of the application.

Reason: *To ensure that the Development is carried out in accordance with the approved details.*

6. Design and operation of wind turbines

- (1) No wind turbine forming part of the Development shall be erected until details of the power rating and sound power levels, the size, external finish and colour (which should be non-reflective pale grey semi-matt) of the wind turbines, any anemometry masts and all associated apparatus, including external transformers, have been submitted to and approved in writing by the Planning Authority.
- (2) The ground to blade tip height of the wind turbines numbered T1, T2, T3 and T13 shall not exceed 131 metres, those numbered T9 and T14 shall not exceed 138.5 metres, and those numbered T4, T5, T6, T7, T8, T10, T11, T12 shall not exceed 149.5 metres.
- (3) The wind turbines shall be constructed and operated in accordance with the approved details and maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned.
- (4) All wind turbine blades shall rotate in the same direction.

Reason: *To ensure that the environmental impacts of the turbines forming part of the Development conform to the impacts assessed in the EIA report and SEI and in the interests of the visual amenity of the area.*

7. Signage

No wind turbine, anemometer, power performance mast, switching station, transformer building or enclosure, ancillary building or above ground fixed plant shall display any name, logo, sign or advertisement (other than health and safety signage) unless and until otherwise approved in writing by the Planning Authority.

Reason: *in the interests of the visual amenity of the area.*

8. Design of Sub-Station, Control Building and Ancillary Development

- (1) No development shall commence on the sub-station and control building unless and until final details of the external appearance, dimensions, and surface materials of the substation and control building, associated compounds, construction compound boundary fencing, external lighting and parking areas have been submitted to, and approved in writing by, the Planning Authority.
- (2) The substation and control building, associated compounds, fencing, external lighting and parking areas shall be constructed in accordance with the approved details.

Reason: *To ensure that the environmental impacts of the sub-station, control building and ancillary development forming part of the Development conform to the impacts assessed in the EIA report and SEI and in the interests of the visual amenity of the area.*

9. Micro-siting

- (1) All buildings, masts, areas of hardstanding and tracks shall be constructed in the locations shown on plan reference SEI Figure 4.1 Site Layout. The wind turbines hereby permitted shall be erected at the following grid co-ordinates:

Turbine	Easting	Northing
1	176171	666802
2	176338	666477
3	176656	666231
4	175839	666441
5	176045	666076
6	175693	665729
7	176137	665662

8	176514	665489
9	176788	665168
10	175395	664870
11	175575	665326
12	175993	665135
13	176118	664809
14	176657	664744

- (2) Notwithstanding the terms of this condition the wind turbines and other infrastructure hereby permitted may be microsited within 50m of the locations shown on SEI Figure 4.1 Site Layout or the above grid references subject to the following restrictions;
- (a) no micrositing shall take place within areas of peat of greater depth than the original location;
 - (b) no micro-siting shall take place within buffer zones for areas hosting Ground Water Dependent Terrestrial Ecosystems;
 - (c) all micro-siting permissible under this condition shall be approved in advance in writing by the Ecological Clerk of Works (“ECoW”); and
 - (d) no micro siting shall locate a turbine closer than 2km to a residential property unless the Planning Authority has given their prior written approval.
- (3) Any proposed micrositing that does not meet the criteria set out in part (2) of this condition may be permitted with the prior written approval of the Planning Authority.
- (4) No later than one month after the date of Final Commissioning an updated site plan showing the final position of all wind turbines, buildings, masts, areas of hardstanding, tracks and associated infrastructure forming part of the Development shall be submitted to the Planning Authority. The plan shall also specify areas where micrositing has taken place and, for each instance, be accompanied by copies of the ECoW or Planning Authority’s approval, as applicable.

Reason: to control environmental impacts while taking account of local ground conditions.

10. Planning Monitoring Officer

- (1) No development shall commence unless and until the terms of appointment by the Company of an independent and suitably qualified environmental consultant as

Planning Monitoring Officer (“PMO”) have been submitted to, and approved in writing by, the Planning Authority. The terms of appointment shall:

- (a) impose a duty to monitor compliance with the terms of the deemed planning permission and the conditions attached to it;
 - (b) require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (c) require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to it at the earliest practical opportunity.
- (2) The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

Reason: *To enable the Development to be suitably monitored to ensure compliance with the planning permission and the conditions attached to it.*

11. Ecological Clerk of Works

- (1) No development shall commence unless and until the terms of appointment of an independent Ecological Clerk of Works (“ECoW”) by the Company have been submitted to, and approved in writing by the Planning Authority (in consultation with SNH as required). The terms of appointment shall:
- (a) impose a duty to monitor compliance with the ecological and hydrological commitments provided in the EIA Report, SEI and other information lodged in support of the application, the Construction and Environmental Management Plan approved under **condition 12**, the Conservation Management Plan approved under **condition 15** and the Water Quality Monitoring Plan approved under **condition 16**;
 - (b) require the ECoW to report to the nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
 - (c) require the ECoW to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (d) require the ECoW to report to the Planning Authority any incidences of non-compliance with the ECoW works at the earliest practical opportunity.
- (2) The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.
- (3) No later than eighteen months prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier), details of the terms of

appointment of an ECoW by the Company throughout the decommissioning, restoration and aftercare phases of the Development shall be submitted for the written approval of the Planning Authority.

- (4) The ECoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the Development.

Reason: *To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development during the decommissioning, restoration and aftercare phases.*

12. Construction and Environmental Management Plan

- (1) No development shall commence unless and until a Construction and Environmental Management Plan (“CEMP”) containing site specific details of all on-site construction works, post-construction reinstatement, drainage and mitigation, together with details of their timetabling, has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH and SEPA as required).

- (2) The CEMP shall include (but is not limited to)

- (a) a Construction Method Statement (CMS) for the formation of the phasing of construction works; timing of works; emergency procedures; working practices to protect nearby residential dwellings; construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
- (b) site waste management plan (dealing with all aspects of waste produced during the construction period other than peat), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment;
- (c) details of a methodology for the construction of the Development and movement of traffic on access tracks and roads, to mitigate disturbance or displacement of black throated divers on Loch nan Torran during the breeding season;
- (d) a dust management plan;
- (e) site specific details for management and operation of any concrete batching plant (including disposal of pH rich waste water and substances);
- (f) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;

- (g) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
- (h) details of soil storage and management;
- (i) a peat management plan, to include details of vegetated turf stripping and storage, peat excavation (including volumes), handling, storage and re-use, to demonstrate how disturbance of peat has been minimised, and details of how all peatland within the application boundary will be restored and managed to maximise sequestration of carbon and active peatland habitat;
- (j) a drainage management strategy, demonstrating how all surface and waste water arising during and after development is to be managed and prevented from polluting any watercourses or sources (having regard to SUDS principles and taking account of SEPA's response dated 30 October 2017).
- (k) surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
- (l) details of sewage disposal and treatment;
- (m) details of temporary site illumination;
- (n) details of the construction of the access into the site and the creation and maintenance of associated visibility splays;
- (o) the method of construction of the crane pads;
- (p) the method of construction of the wind turbine foundations;
- (q) the method of working cable trenches;
- (r) the method of construction and erection of the wind turbines and meteorological masts;
- (s) details of watercourse crossings, ensuring compliance with the Controlled Activity Regulations where appropriate, avoiding in stream works during the period from October to May and taking account of the movement requirements of fish;
- (t) requirements for details of post-construction restoration/reinstatement of the working areas not required during the operation of the Development, including construction access tracks, borrow pits, construction compound, storage areas, laydown areas, access tracks, passing places and other construction areas to be provided no later than 6 months prior to the date of Final Commissioning unless otherwise agreed in writing by the Planning Authority. Wherever possible, reinstatement is to be achieved by the careful use of turfs removed prior to construction works. Details should include all seed mixes to be used for the reinstatement of vegetation;
- (u) details of track reinstatement and amelioration options appropriate to minimise visual impact and to protect the qualities of the NSA (Knapdale);
- (v) a felling and tree management plan;
- (w) details of suitable bio-control measures for the new traffic access route (as shown on SEI figures 1.1 and 1.1a) to prevent the spread of invasive plant species (Himalayan balsam and American skunk);

- (x) Ecological monitoring over construction period including all necessary pre- construction surveys; and
 - (y) a species protection plan to clearly identify measures to safeguard protected species in the area to minimise risk during construction.
- (3) The approved CEMP shall be implemented in full unless otherwise approved in advance in writing by the Planning Authority (in consultation with SNH and SEPA as required).

Reason: *To ensure that all construction operations are carried out in a manner that minimises their impact on road safety, amenity and the environment, and that the mitigation measures contained in the EIA report and SEI accompanying the application, or as otherwise agreed, are fully implemented.*

13. Borrow Pits – Scheme of Works

- (1) No development shall commence unless and until a scheme for the working and restoration of each borrow pit has been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA as required). The scheme shall include:
- (a) a detailed working method statement based on site survey information and ground investigations;
 - (b) details of the handling of any overburden (including peat, soil and rock);
 - (c) drainage measures, including measures to prevent surrounding areas of peatland, water dependant sensitive habitats and Ground Water Dependent Terrestrial Ecosystems (GWDTE) from drying out;
 - (d) a programme of implementation of the works described in the scheme; and
 - (e) details of the reinstatement, restoration and aftercare of the borrow pit(s) to be undertaken at the end of the construction period, including topographic surveys of pre-construction profiles and details of topographical surveys to be undertaken of the restored borrow pit profiles.

The approved scheme shall thereafter be implemented in full.

Reason: *To ensure that excavation of materials from the borrow pits is carried out in a manner that minimises the impact on road safety, amenity and the environment, and to secure the restoration of borrow pits at the end of the construction period.*

14. Borrow Pits - Blasting

- (1) Blasting shall only take place on site between the hours of 07:00 and 19:00 Monday to Friday inclusive and 07:00 to 13:00 on Saturdays, with no blasting taking place on a Sunday or a Public Holiday, unless otherwise approved by the Planning Authority.
- (2) Ground vibration from blasting shall not exceed a peak particle velocity of 6mm/s for 95% of blasts over a six month period and no individual blast shall exceed a peak particle velocity of 10mm/s at agreed blasting monitoring locations.

Reason: *To ensure that blasting activity is carried out within defined timescales to control impact on amenity.*

15. Conservation Management Plan

- (1) No development shall commence unless and until final details of the Conservation Management Plan ("CMP") has been submitted to and approved in writing with the Planning Authority (in consultation with SNH as required). The CMP should include but is not limited to:
 - (a) Details of the proposed conservation management measures during the period of construction, operation, decommissioning, restoration and aftercare, and shall provide for the maintenance, monitoring and reporting of the woodland management and diver management areas and species and habitats identified in the outline conservation management plan (OMCP) provided in appendix 9.4 of the EIA report.
 - (b) Provision for monitoring and review at years 1, 3, 5, 10 and 15 of the plan, to be undertaken to consider whether amendments are needed to better meet the CMP objectives. In particular, the approved CMP shall be updated to reflect any ground condition surveys undertaken following construction and prior to the date of Final Commissioning and submitted for the written approval of the Planning Authority.
 - (c) A programme for the management, review and maintenance of the artificial diver nesting rafts throughout the lifetime of the windfarm, taking account of the diver breeding season.
- (2) Unless and until otherwise agreed in advance in writing with the Planning Authority, the approved CMP (as amended from time to time) shall be implemented in full.

Reason: *In the interests of good land management and the protection of habitats.*

16. Water Quality Monitoring Plan

- (1) No development shall commence until a Water Quality Monitoring Plan has been submitted to and approved by the Planning Authority. The Water Quality Monitoring Plan must take account of the consultation responses of Scottish Government's Marine Scotland Science, Argyll District Salmon Fishery Board and SNH made in response to the Application. The Plan must include:
- (a) A minimum of 12 months pre-construction water quality monitoring shall be carried out at locations to be agreed and set out in the Water Quality Monitoring Plan. Water quality monitoring will thereafter continue through construction and continue for 1 year from the date of Final Commissioning, the results of which will be forwarded to the ECoW and be made available to the Planning Authority upon request; and
 - (b) Mitigation measures detailed in the EIA report Chapter 7, SEI Chapter 7, EIA Appendix 7.4 and EIA Report Chapters 8.191 to 8.193.
- (2) Thereafter the Water Quality Monitoring Plan must be implemented in full and in accordance with the timescales set out in the programme. No changes to the Water Quality Monitoring Plan shall take place unless they are with prior written approval of the Planning Authority.

Reason: *To ensure compliance with all commitments made in the EIA report to protect water quality and fish habitats.*

17. Breeding Bird Protection Plan ("BBPP")

- (1) No development shall commence until a Breeding Bird Protection Plan (BBPP) is submitted to and be approved in writing by the Planning Authority which addresses the proposed mitigation measures set out in Chapter 9 of the EIA and SEI, including (but not limited to):
- (a) pre-construction survey for Black Grouse, Red Throated Diver, Black Throated Diver, Merlin and Golden Eagle,
 - (b) a 15mph speed limit within 750m of a Black Grouse lek or breeding location of a Red or Black Throated Diver,
 - (c) no construction activity within 750m of an identified Black Grouse Lek (unless in case of emergency in consultation with the ECOW) prior to 09:00 hours and after 18:00 hours between the months of April and July inclusive and no construction activity between April and August inclusive within 750m of Red or Black Throated Diver breeding locations;

- (d) two artificial nests to be deployed in locations to be agreed (with at least one being on Loch Nan Torran) and maintained throughout the operational period of the wind farm;
- (e) measures to minimise disturbance to Breeding Merlin, if breeding occurs within 500m of any consented infrastructure;
- (f) measures to minimise disturbance to Golden Eagle, if breeding occurs within 1km of any consented infrastructure including no construction between the months of February to August inclusive, unless otherwise agreed with the ECOW;
- (g) measures to minimise disturbance to birds during the operational period of the wind farm.

(2) Thereafter the Development shall be implemented in accordance with the approved BBPP or any subsequent variation thereof as may be approved in writing in advance by the Planning Authority.

Reason: *To protect ornithological interests during the construction period and to ensure compliance with commitments set out in the EIA report and SEI.*

18. Construction Hours

- (1) Construction work which is audible from any noise-sensitive receptor shall only take place on the site between the hours of 07.00 to 19.00 on Monday to Friday inclusive and 07.00 to 13.00 on Saturdays, with no construction work taking place on a Sunday or Public Holiday. Outwith these specified hours, development on the site is to be limited to wind turbine erection, maintenance, pouring of concrete, emergency works, dust suppression, and the testing of plant and equipment (unless otherwise approved in advance in writing by the Planning Authority). In addition, access for security reasons, emergency responses or to effect any necessary environmental controls is permitted outwith these hours.
- (2) HGV movements to and from the site (excluding abnormal loads) during construction of the Development shall be limited to 07.00 to 19.00 Monday to Friday, and 07.00 to 16.00 on Saturdays, with no HGV movements to or from site taking place on a Sunday or Public Holiday.

Reason: *In the interests of local amenity.*

19. Road Safety - Construction Traffic Management Plan (“CTMP”)

- (1) No development shall commence unless and until a Construction Traffic Management Plan (CTMP) is submitted and approved in writing by the Planning Authority. The CTMP must take account of the consultation responses of Transport Scotland and the Planning Authority’s Roads Engineer made in response to the application. The CTMP shall include (but is not limited to):

- (a) the routing of all traffic associated with the Development on the local road network;
 - (b) measures to ensure that the specified routes are adhered to, including monitoring procedures;
 - (c) any identified works to accommodate abnormal loads along the delivery route including any temporary warning signs;
 - (d) the management of junctions to and crossing of the public highway and other public rights of way;
 - (e) temporary removal and replacement of highway infrastructure/street furniture;
 - (f) reinstatement of any signs, verges or other items displaced by construction traffic;
 - (g) details of all signage and lining arrangements to be put in place;
 - (h) provisions for emergency vehicle access;
 - (i) identification of a nominated person to whom any road safety issues can be referred;
 - (j) a plan for access by vehicles carrying abnormal loads, the number and timing of deliveries and the length, width and axle configuration of all extraordinary traffic accessing the site; and
 - (k) measures to ensure that all affected public roads are kept free of mud and debris arising from the Development.
- (2) All construction traffic will access the site directly from the A83 Taret – Campbeltown Trunk Road.
- (3) The approved CTMP shall be implemented in full, unless and until otherwise agreed in advance in writing with the Planning Authority.

Reason: *In the interests of road safety and to ensure that abnormal loads access the site in a safe manner.*

20. Road Safety – Abnormal Loads Alterations and Construction Traffic (B8024 Kilbery Road and C23 Glenakill Road)

- (1) No development shall commence unless and until the full details of the proposed alterations to the B8024 Kilbery Road and C23 Glenakill Road, have been submitted for the written approval in writing by the Planning Authority.
- (2) A condition survey of the section of the B8024 Kilbery Road and C23 Glenakill Road being used for the transportation of Construction Traffic is to be carried out prior to construction and submitted to the Planning Authority.

Reason: *To minimise interference with the safety of and free flow of traffic on the B8024 Kilbery Road and C23 Glenakill Road.*

21. Forestry – Compensatory Planting

- (1) No Forestry Works, associated with the construction and operation of the Development, shall commence until a Compensatory Planting Plan (“CPP”) has been submitted to and approved by the Planning Authority (in consultation with Scottish Forestry as required). The CPP shall provide for the planting of woodland commensurate with the level of woodland lost (anticipated to be 26.74ha).
- (2) The CPP shall comply with the requirements set out in the UK Forestry Standard and the guidelines to which it refers, or such other replacement standard agreed by the Planning Authority. The CPP shall include:
 - (a) details of the location of the area to be planted;
 - (b) the nature, design and specification of the proposed woodland to be planted;
 - (c) the phasing and associated timescales for implementing the CPP;
 - (d) proposals for the maintenance of the CPP, including annual checks, replacement planting, fencing, ground preparation and drainage; and
 - (e) proposals for reporting to the Planning Authority on compliance with timescales for obtaining the Necessary Consents and implementation of the CPP.
- (3) The approved CPP shall be implemented in full, unless otherwise agreed in writing by the Planning Authority.

Reason: *To secure replanting to mitigate against effects of deforestation arising from the Development.*

22. Forestry – Felling and Restocking Plan

No Forestry Works associated with the Development shall commence until a finalised Restocking Plan, detailing the felling and restocking of the woodland, associated with phases 1 and 2 of the Forestry Works (identified in SEI Appendix 4.3), has been submitted to and approved in writing by the Planning Authority (in consultation with Scottish Forestry as required). Unless and until otherwise approved in writing by the Planning authority, the approved Restocking Plan shall be implemented in full.

Reason: *To ensure the consented felling and restocking of the woodland associated with the Forestry Works approved by the consent is carried out in accordance with UK Forestry Standard.*

23. Private Water Supplies

- (1) No development shall commence unless and until a method statement and monitoring plan, and emergency response plan in respect of Private Water

Supplies have been submitted to, and approved in writing by, the Planning Authority.

- (2) The plans must detail all mitigation measures to be taken to secure the quality, quantity and continuity of water supplies to properties which are served by private water supplies at the date of the grant of the section 36 consent and deemed planning permission and which may be affected during the construction period of the Development.
- (3) The method statement shall include water quality sampling methods and shall specify abstraction points.
- (4) Unless and until otherwise agreed in advance in writing with the Planning Authority, the approved method statement and monitoring plan and emergency response plan shall be implemented in full.
- (5) Monitoring results shall be submitted to the Planning Authority on a quarterly basis or on request during the approved programme of monitoring, during the construction period.

Reason: *To maintain a secure and adequate quality water supply to all properties with private water supplies this may be affected by the Development.*

24. Redundant turbines

- (1) Unless otherwise agreed in writing by the Planning Authority, if one or more wind turbines fails to generate electricity for a continuous period of twelve months a scheme setting out how the relevant wind turbine(s) and associated infrastructure will be brought back into productive use or removed from the site and the ground restored shall be submitted for the written approval of the Planning Authority no later than one month after the date of expiry of the twelve month period.
- (2) The approved scheme shall be implemented within six months of the date of its approval, to the satisfaction of the Planning Authority.

Reason: *To ensure that any redundant wind turbine is removed from the Development site, in the interests of safety, amenity and environmental protection.*

25. Aviation Safety

- (1) No development shall commence unless and until the Company has provided the Planning Authority, Defence Infrastructure Organisation (DIO) and the Civil

Aviation Authority with the following information, and evidence has been provided by the Company to the Planning Authority that this has been done:

- (a) the date of the expected commencement of each stage of construction;
 - (b) the height, above ground level, of the tallest structure forming part of the Development;
 - (c) the maximum extension height of any construction equipment; and
 - (d) the position of the wind turbines and masts in latitude and longitude.
- (2) The final constructed position of the turbines will be provided to the DIO within one month of completion of construction of the site.

Reason: *In the interests of aviation safety.*

26. Aviation Lighting

- (1) No wind turbines shall be erected unless and until a scheme for aviation lighting for the Development has been submitted to, and approved by, the Planning Authority in consultation with Defence Infrastructure Organisation. The scheme shall include details of the perimeter turbines to be fitted with MOD accredited lighting.
- (2) No lighting other than that described in the scheme shall be applied, other than that required for health and safety purposes, unless otherwise agreed in writing by the Planning Authority.
- (3) The Development shall be operated in accordance with the approved scheme.

Reason: *In the interests of aviation safety*

27. Site Decommissioning, Restoration and Aftercare

- (1) The Development shall cease to generate electricity by no later than the date falling thirty (30) years from the date of Final Commissioning. The total period for decommissioning and restoration of the Site in accordance with this condition shall not exceed three years from the date falling thirty years from the date of Final Commissioning without the prior written approval of the Planning Authority in consultation with the Scottish Ministers.
- (2) No development shall commence unless and until a decommissioning, restoration and aftercare strategy has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH and SEPA). The strategy shall outline measures for the decommissioning of the Development and restoration and

aftercare of the site, and shall include proposals for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environmental management provisions.

- (3) No later than three years prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved decommissioning, restoration and aftercare strategy, shall be submitted for the written approval of the Planning Authority in consultation with SNH and SEPA. The detailed decommissioning, restoration and aftercare plan shall provide updated and detailed proposals, in accordance with relevant guidance at that time, for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall include (but is not limited to):
- (a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases);
 - (b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
 - (c) a dust management plan;
 - (d) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network, including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
 - (e) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
 - (f) details of measures for soil storage and management;
 - (g) a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
 - (h) details of measures for sewage disposal and treatment;
 - (i) temporary site illumination;
 - (j) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays;
 - (k) details of watercourse crossings;
 - (l) a species protection plan based on surveys for protected species (including birds) carried out no longer than eighteen months prior to submission of the plan;
 - (m) a traffic management plan (TMP) which provides for the arrangements in respect of traffic associated with the decommissioning of the

Development which mirrors the provisions approved in the CTMP for the construction of the Development; and
(n) a Water Quality Monitoring Plan.

- (4) The Development shall be decommissioned, the site restored and aftercare undertaken in accordance with the approved plan, unless and until otherwise agreed in writing in advance with the Planning Authority (in consultation with SNH and SEPA).

Reason: *To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.*

28. Site Inspection Strategy

- (1) Prior to the Date of Final Commissioning, the Company must submit a draft Site Inspection Strategy (SIS), for the written approval of the Planning Authority. This shall set out details for the provision of site inspections and accompanying Site Inspection Reports (SIR) to be carried out at 25 years of operation from the Date of Final Commissioning. At least one month in advance of submitting the SIR, the scope of content shall be agreed with the Planning Authority. The SIR shall include, but not be limited to:

- (a) Requirements to demonstrate that the infrastructure of the Development is still fit for purpose and operating in accordance with **condition 6** and **condition 30**; and
- (b) An engineering report which details the condition of tracks, turbine foundations and the wind turbine generators and sets out the requirements and the programme for the implementation for any remedial measures which may be required.

- (2) Thereafter the SIS and SIR shall be implemented in full unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *To ensure the condition of the infrastructure associated with the Development is compliant with the EIA report, condition 6 and condition 30 and is to ensure the Development is being monitored at regular intervals throughout its operation.*

29. Financial Guarantee

- (1) No development shall commence unless the Company has delivered to the Planning Authority for its written approval a bond or other form of financial guarantee as security in respect of the cost of performance of all decommissioning, restoration and aftercare obligations referred to in **condition 27**.

- (2) The value of the financial guarantee shall be agreed between the Company and the Planning Authority or, failing agreement, determined (on application by either party) by a suitably qualified independent professional as being sufficient to meet the costs of all decommissioning, restoration and aftercare obligations referred to in **condition 27**.
- (3) The financial guarantee shall be maintained in favour of the Planning Authority until the date of completion of all decommissioning, restoration and aftercare obligations referred to in **condition 27**.
- (4) The value of the financial guarantee shall be reviewed by agreement between the Company and the Planning Authority or, failing agreement, determined (on application by either party) by a suitably qualified independent professional no less than every five years and increased or decreased to take account of any variation in costs of compliance with decommissioning, restoration and aftercare obligations and best practice prevailing at the time of each review.

Reason: *to ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed planning permission in the event of default by the Company.*

30. Operational Noise

- (1) The rating level of noise immissions from the combined effects of the wind turbines forming part of the Development (including the application of any tonal penalty) shall not exceed the values for the relevant integer wind speed set out in, or derived from, the table attached to this condition at any dwelling which is lawfully existing or has planning permission at the date of this consent. The turbines shall be designed to permit individually controlled operation or shut down at specified wind speeds and directions in order to facilitate compliance with noise criteria and:
 - (a) Prior to the installation of any turbines the developer shall submit a report for approval by the Planning Authority which demonstrates compliance with the noise limits in the above condition. The report shall include details of any proposed noise reduction measures and shall be prepared with reference to the Institute of Acoustics Good practice Guide to the Application of ETSU-R-97 and associated supplementary guidance notes.
 - (b) The Company shall continuously log power production, wind speed and wind direction. These data shall be retained for a period of not less than 24 months. The Company shall provide this information to the Planning Authority within 14 days of receipt in writing of a request to do so.

- (c) Within 21 days from the receipt of a written request from the Planning Authority or following a complaint to the Planning Authority from the occupant of a dwelling, the wind turbine operator shall, at the wind turbine operator's expense, employ an independent consultant approved by the Planning Authority to assess the level of noise immissions from the wind turbines at the complainant's property in accordance with procedures to be agreed with the Planning Authority.
- (d) The wind turbine operator shall provide the Planning Authority the independent consultant's assessment and conclusions regarding the said noise complaint (referenced at part (c) above) including all calculations, audio recordings and raw data upon which those assessments and conclusions are based. Such information shall be provided within 2 months of the date of a written request from the Planning Authority, unless otherwise extended in writing by the Planning Authority. The wind turbine operator shall take such remedial action required to the satisfaction of the Planning Authority.
- (e) Where a further assessment of the rating level of noise immissions from the wind farm is required, the Company shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (c) above unless the time limit has been extended in writing by the Planning Authority.

Table 1 – Noise limits expressed in dB LA90,10 minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10 minute periods at all times.

Location	Wind speed									
	4	5	6	7	8	9	10	11	12	
High Carse	35	35	35	35	35	35	35	35	35	35
Clachaig	35	35	35	35	35	35	35	35	35	35
Achaglachgach House	35	35	35	35	35	35	35	35	35	35
Creag Farm	35	35	35	35	35	35	35	35	35	35
Kilberry	35	35	35	35	35	35	35	35	35	35
Coulaghaitro	35	35	35	35	35	35	35	35	35	35
Crear	35	35	35	35	35	35	35	35	35	35

Reason: *to protect nearby residents from undue noise and disturbance. To ensure that noise limits are not exceeded and to enable prompt investigation of complaints.*

Guidance Notes for Operational Noise Condition

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

- a) Values of the $L_{A90,10 \text{ minute}}$ noise statistic should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.
- b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two- layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the Company shall submit for the written approval of the Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.
- c) The $L_{A90,10 \text{ minute}}$ measurements should be synchronised with measurements of the 10- minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.
- d) To enable compliance with the conditions to be evaluated, the Company shall continuously log arithmetic mean wind speed in metres per second and wind

direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10- minute periods shall commence on the hour and in 10-minute increments thereafter.

- e) Data provided to the Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.
- f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

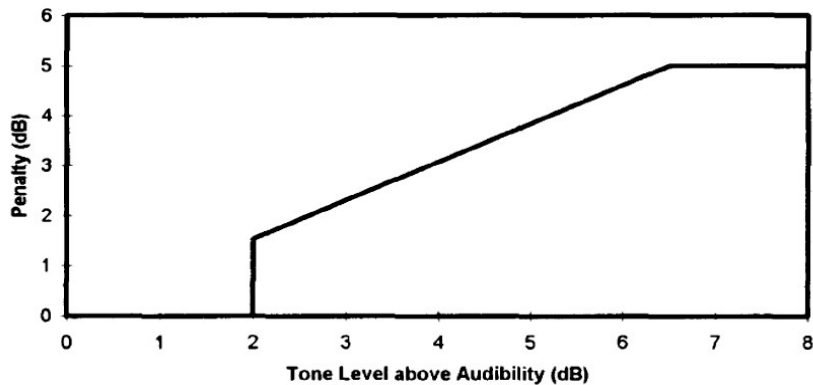
- a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b)
- b) Valid data points are those measured in the conditions specified in the agreed procedures under paragraph (c) of the noise condition, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions, the independent consultant shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.
- c) For those data points considered valid in accordance with Guidance Note 2(b), values of the $L_{A90,10 \text{ minute}}$ noise measurements and corresponding values of the 10-minute standardised wind speed, as derived using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define

the wind farm noise level at each integer speed.

Guidance Note 3

- a) Where, in accordance with the agreed procedures under paragraph (c) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.
- b) For each 10 minute interval for which $LA_{90,10 \text{ minute}}$ data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.
- c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.
- d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.
- e) A least squares "best fit" linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the "best fit" line at each integer wind speed. If there is no apparent trend with wind speed, then a simple arithmetic mean shall be used for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

The tonal penalty is derived from the average tone level above audibility according to the figure below:



Guidance Note 4

- a) If a tonal penalty is to be applied in accordance with Guidance Note 3, the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified in the procedures agreed under paragraph (c) of the noise condition.
- b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.
- c) In the event that the rating level is above the limit(s) set out in the Table attached to the noise conditions, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.
- d) The Company shall ensure that all necessary wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:
 - e) Repeating the steps in Guidance Note 2, with the required number of turbines shut down in accordance with Guidance note 4(d) in order to determine the background noise (L3) at each integer wind speed within the range in which the rating level is above the limit(s) according to Guidance Note 4(c) above.
 - f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

- g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.
- h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Table attached to the conditions then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Table attached to the conditions then the development fails to comply with the condition.

Definitions

In this consent and deemed planning permission:-

“Application” means the application letter dated 31 August 2017.

“Commencement of Development” means the implementation of the consent and deemed planning permission by the carrying out of a material operation within the meaning of section 26 of the Town and Country Planning (Scotland) Act 1997.

“the Company” means EDF Energy Renewables Limited having its registered office at 40 Grosvenor Place, Victoria, London, Company No. 06456689, or such other person who from time to time may lawfully have the benefit of this consent.

“the Development” the development described at Annex 1 authorised by this consent the section 36 consent and deemed planning permission.

“Date of First Commissioning” means the date on which electricity is first exported to the grid network on a commercial basis from any of the wind turbines forming part of the Development.

“Date of Final Commissioning” means the earlier of (i) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (ii) the date falling [eighteen] months from the date of First Commissioning.

“EIA report” means the Environmental Impact Assessment Report submitted by the Company dated August 2017

“Forestry Works” means the felling and restocking of woodland associated with phase 1 and phase 2 of the wind farm felling plan provided at Table 1-5 of Appendix 4.3 of the SEI.

“SEI” means the Supplementary Environmental Information submitted by the Company dated February 2019

“SEPA” means Scottish Environmental Protection Agency

“Site” means the area of land defined in the EIA report and SEI

“SNH” means Scottish Natural Heritage

“NATS” means National Air Traffic Services

“Planning Authority” means Argyll and Bute Council

“Public Holiday” means;

New Year's Day, if it is not a Sunday or, if it is a Sunday, 3rd January.

2nd January, if it is not a Sunday or, if it is a Sunday, 3rd January.

Good Friday.

Easter Monday.

The first Monday in May.

The first Monday in August.

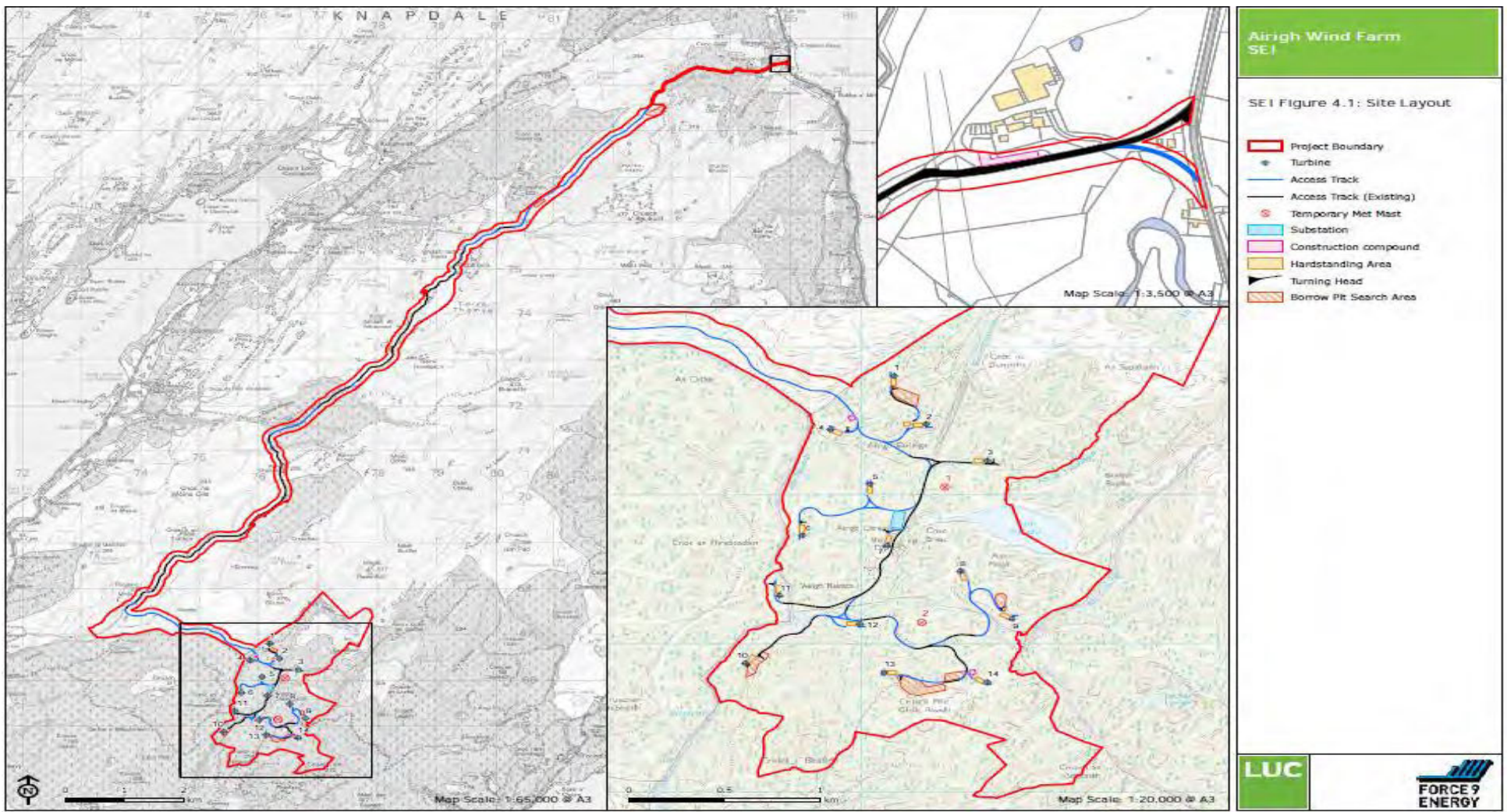
The third Monday in September.

30th November, if it is not a Saturday or Sunday or, if it is a Saturday or Sunday, the first Monday following that day.

Christmas Day, if it is not a Sunday or, if it is a Sunday, 27th December.

Boxing Day, if it is not a Sunday or, if it is a Sunday, 27th December.

ANNEX 3 - Maps



Scottish Government, 5 Atlantic Quay, 150 Broomielaw,
Glasgow
www.scotland.gov.uk

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This is the map referred to in the consent by the Scottish Ministers in terms of Section 36 of the Electricity Act 1989 for the construction and operation of a wind powered electricity generating station, Airigh Wind Farm, south west of Tarbert, Argyll & Bute, Dated 20 March 2020
Redacted

Signed

A member Redacted

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Airigh Wind Farm SEI

SEI Figure 1.1a: Site Location - Road Amendments

Project Boundary

LUC

Scottish Government, 5 Atlantic Quay, 150 Broomielaw,
Glasgow
www.scotland.gov.uk

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This is the map referred to in the consent by the Scottish Ministers in terms of Section 36 of the Electricity Act 1989 for the construction and operation of a wind powered electricity generating station, Airigh Wind Farm, south west of Tarbert, Argyll & Bute. Dated 20 March 2020
Redacted

Signed

A member of the staff of the Scottish Minister
R
e
d
a



Scottish Government, 5 Atlantic Quay, 150 Broomielaw,
Glasgow
www.scotland.gov.uk

61



This is the map referred to in the consent by the Scottish Ministers in terms of Section 36 of the Electricity Act 1989 for the construction and operation of a wind powered electricity generating station, Airigh Wind Farm, south west of Tarbert, Argyll & Bute, Dated 20 March 2020
Redacted

Signed

A member of the staff of the Scottish Ministers.

T: 0141 242 0361
[REDACTED]@gov.scot

[REDACTED]
RWE Renewables UK Developments Limited
Greenwood House
Westwood Way
Westwood Business Park
Coventry
CV4 8TT

24th March 2021

Dear [REDACTED]

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF GOLTICLAY WIND FARM IN THE HIGHLAND COUNCIL PLANNING AUTHORITY AREA

Application

1. I refer to the application made on 27 October 2016 under section 36 of the Electricity Act 1989 (“the Act”) by E.On Climate & Renewables UK Developments Limited, a company incorporated under the Companies Act with company number 03758407 now trading as RWE Renewables UK Developments Limited and having its registered office at Greenwood House Westwood Way, Westwood Business Park, Coventry, United Kingdom, CV4 8TT (“the Company”), for the construction and operation of the proposed Golticlay Wind Farm with a generating capacity in excess of 50 megawatts.

2. The application proposed 19 wind turbines with a maximum blade tip height of 130 metres above ground level and associated infrastructure including 13.75 km of track including 5.6 km of new track, 6.5 km of upgraded track and 1.6 km of floating track. The installed generating capacity will exceed 50MW.

3. **This letter contains the Scottish Ministers’ decision to grant consent for the Golticlay Wind Farm, a generating station forming part of the Development as more particularly described at Annex 1 (“the Development”).**

Planning Permission

4. In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 Scottish Ministers may on granting consent under section 36 of the Act direct that planning permission is deemed to be granted for the Development. **This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.**

Consultation, EIA Regulations and other Environmental Consideration

5. Under Schedule 8 to the Act, and the Electricity (Applications for Consent) Regulations 1990 ("the Consents Regulations") made under the Act, the relevant Planning Authority is required to be notified in respect of a section 36 consent application. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 ("the 2000 Regulations") on 27 October 2016 the Company submitted an Environmental Statement (ES) describing the Development and giving an analysis of its environmental effects. The application proposed 19 wind turbines with a maximum blade tip height of 130 metres above ground level, each turbine with a maximum electrical generating capacity of up to 3.4 megawatts giving a maximum total generating capacity of up to 64.6 megawatts for the generating station.

6. The 2000 Regulations have subsequently (with effect from 16th May 2017) been replaced by the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the 2017 Regulations"). The 2017 Regulations now apply to this application subject to certain modifications. These modifications, among other things, provide that where the 2017 Regulations refer to an "EIA report" this includes an "Environmental Statement" prepared under the 2000 Regulations.

7. In accordance with statutory requirements, advertisement of the application and Environmental Statement was made in the local and national press and the opportunity given for those wishing to make representations to do so. In addition, to comply with the 2000 Regulations, Scottish Ministers were required to consult the relevant planning authority, as well as Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES) as well as other persons that are likely to be concerned by the Development by reason of their specific environmental responsibilities. Notifications were sent to Highland Council (the "Planning Authority") as the relevant planning authority as well as to SNH, SEPA and HES. A wide range of other relevant organisations were also notified and consulted.

8. Scottish Ministers have had regard to the matters set out in Schedule 9 of the Act in respect of the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

9. In accordance with section 36(5A) of the Act, before granting any section 36 consent Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to the protection of the water environment; and
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

10. SEPA's advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the Development. SEPA considers that (without prejudice to the determination of any corresponding applications for authorisation under the Water Environment (Controlled Activities) (Scotland) Regulations 2011), they can confirm that they would still expect the proposal to fall into Category 1 - 'capable' of being authorised. In their response to Scottish Ministers they direct the Company to the Regulations section of the SEPA website for advice on regulatory requirements and good practice advice.

11. Additional Information submitted by the Company on 20 June 2017 ("the 2017 Additional Information") was subject to consultation with statutory consultees and advertised for public comment. The 2017 Additional Information made a number of changes to the project description to address comments made by the Scottish Environment Protection Agency (SEPA) in respect of the Development's effect upon peat. It includes a draft Habitat Management Plan (HMP) and a draft Construction Environmental Management Plan (CEMP). The 2017 Additional Information also contains further information to address other comments made upon the proposal.

12. During the course of a Public Local Inquiry into the Development, more Additional Information was submitted in 2018 ("the 2018 Additional Information") at the request of the inquiry reporter for the purpose of the inquiry and was circulated to the parties to the inquiry. The information included the Golticlay night time aviation lighting assessment, information on wildcat and the works required to the C1053 road.

13. Scottish Ministers are satisfied that the Environmental Statement and the Additional Information have been produced in accordance with the 2000 Regulations and the 2017 Regulations where relevant. Scottish Ministers have assessed the environmental impacts of the Development and taken the environmental information, Environmental Statement, Additional Information, representations, consultation responses including those from SNH, SEPA, HES and the Planning Authority, and the report of the Public Local Inquiry into consideration in reaching their decision.

14. Scottish Ministers consider that there is sufficient information to allow Scottish Ministers to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

15. Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

16. Scottish Ministers are satisfied that the Development would not have any adverse effect on fisheries or to stock of fish in any waters.

17. Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations, the 2000 Regulations and the 2017 Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the Development.

Conservation of Habitats and Species Regulations 2017

18. SNH informed Scottish Ministers of the potential for the Development to have a significant effect on the qualifying interests of the following Natura 2000 sites: Caithness and Sutherland Peatlands Special Protection Area (SPA); East Caithness Cliffs SPA; and Caithness Lochs SPA.

19. In compliance with the Conservation of Habitats and Species regulations, an Appropriate Assessment has been carried out with respect to each above mentioned Natura site. The environmental information to inform the appraisal was presented in the Environmental Statement which accompanied the Application and the 2017 Additional Information. The Appropriate Assessments have therefore been produced using information already advertised in accordance with the 2000 Regulations and 2017 Regulations where relevant.

20. Scottish Ministers conclude following advice from NatureScot (SNH), and in view of the conservation objectives of the Caithness and Sutherland Peatlands SPA, that the results of survey work and collision risk analysis demonstrate that the Development will not adversely affect the integrity of the site, subject to compliance with deemed planning conditions 10 and 15.

21. Scottish Ministers conclude following advice from SNH, and in view of the conservation objectives of the East Caithness Cliffs SPA, that the results of survey work and collision risk analysis demonstrate that the Development will not adversely affect the integrity of the site subject to adherence to committed mitigation measures set out by the Company within the application and Environmental Information supplied by them.

22. Scottish Ministers conclude following advice from SNH, and in view of the conservation objectives of the Caithness Lochs SPA, that the results of survey work and collision risk analysis demonstrate that the Development will not adversely affect the integrity of the site.

23. HRA screening was carried out with respect to the Caithness and Sutherland Peatlands SAC, which concluded no likely significant effect on the qualifying interests of the site.

Public Local Inquiry

24. In terms of paragraph 2 of Schedule 8 to the Act if the Planning Authority make an objection and that objection is not withdrawn, the Scottish Ministers must cause a public inquiry to be held unless the Scottish Ministers propose to accede to the application subject to such modifications or conditions as will give effect to the objection of the Planning Authority. The Planning Authority objected and did not withdraw that objection. Scottish Ministers did not

consider it possible to accede to the application by way of applying conditions to give effect to the Planning Authority's objection, and caused a public local inquiry to be held.

25. The Public Local Inquiry Reporter held inquiry sessions on 8 and 9 October 2018 and hearing sessions on 9 and 10 October 2018. A community hearing was held in the evening of 11 October 2018. The Reporter conducted an accompanied site inspection on 12 October 2018 and unaccompanied site inspections on 6 and 8 October 2018, in the evening of 12 October 2018, and on 14 May 2019. The Report of the Public Local Inquiry was received by Scottish Ministers on 20 February 2020.

26. The Reporter's recommendation is that Scottish Ministers grant consent under section 36 of the Electricity Act 1989 and direct that planning permission is deemed to be granted; and that conditions proposed by the Reporter are attached.

Summary of the Consultation Responses

27. **Highland Council (the Planning Authority)** objected to the Development stating the Development should be refused on the grounds that:

- The Development would have a significantly detrimental visual impact on the Caithness landscape for local residents and visitors, particularly as viewed from the village of Lybster, as evidenced in Viewpoint 6 at the Bayview Hotel and Viewpoint 4 at Upper Lybster.
- The impacts of the Development would be detrimental to the local wildcat and osprey population and are not able to be satisfactorily mitigated by siting, or other mitigation.

28. The planning authority subsequently withdrew the reason for its objection on grounds of detrimental impacts on wildcat and osprey. Scottish Ministers have included a planning condition for the wildcat and osprey species protection plans which the planning authority recommended, at Annex 2 Part 2 Condition 10(1)(c)(xv).

29. **Historic Environment Scotland (HES)** considered the potential for significant effects on two scheduled monuments (Golsary broch on W bank of Burn of Golsary, Rumster Forest, and Rumster broch 200m WSW of Forse), two further scheduled brochs (Appnag Tulloch broch and The Tulloch (Usshilly), broch and field system WNW of Forse House) and two settlement sites (Wag of Forse, settlement 800m WSW of Forse House, and Forse House, settlement, field system, burnt mounds and cairns). HES advises that although blade tips may be visible, the topography largely screens the turbines in views out from and of the Golsary broch and Rumster broch monuments, which, in combination with the distance involved, suggests that any impacts are unlikely to be significant. HES advises that there will be an impact on the setting of Appnag Tulloch broch and the Tulloch (Usshilly) broch and field system as the turbines will to some extent reduce the dominance of the monuments in the landscape, and distract the views between them and related sites; however, HES advises that given the distance involved, the impacts are unlikely to be significant. HES advises that the presence of turbines in long distance views from Wag of Forse and Forse House may make some contribution to the understanding of these two monuments, although HES does not consider them to be a key element of the setting; HES advises that given the nature of the sites and the distances involved, any impacts are unlikely to be significant.

30. HES advises it is content that there is sufficient information in the Environmental Statement to come to a view on the Development regarding its interests. HES does not object to the Development.

31. The **Scottish Environmental Protection Agency** (SEPA) initially objected to the Development on the grounds of lack of information on peat. SEPA advised that any consent should include conditions requiring: all works to be carried out in accordance with the ES Summary of Mitigation Measures; a site specific Construction Environmental Management Plan (CEMP); removal from site of stemwood of 7cm or above in relation to forest removal; micro-siting limits; all new watercourse crossings to meet SEPA's requirements for design, capacity and size; and a 50m buffer around watercourses. SEPA's initial response also provided detailed advice for the Company on Construction Environmental Management, advice on regulatory requirements, and contact details within SEPA.

32. Following consideration of the 2017 Additional Information, SEPA withdrew its previous objection subject to the inclusion of the conditions it previously advised were necessary and the inclusion of further conditions post-felling but prior to any construction works commencing on site, requiring the following: updated peat probing information and with probes to micro-siting limits; submission of a layout plan to be submitted showing micro-siting as a result of detailed peat probing to demonstrate how impacts on peat have been minimised and how impacts on other aspects of the environment (such as groundwater dependent terrestrial ecosystems (GWDTEs) and watercourses) have been minimised; finalisation and implementation of a Habitat Management Plan. SEPA again provided detailed advice for the Company on Construction Environmental Management, and referred the Company to guidance on forest clearance and residues.

33. **NatureScot (SNH)** initially objected to the Development on the grounds of risk to the integrity of the Caithness and Sutherland Peatlands Special Protection Area (SPA) and the East Caithness Cliffs SPA. SNH indicated that the objection could be reconsidered subject to the appraisal of further information from the Company and a revision of the mitigation measures to SNH's satisfaction.

34. Following consideration of the 2017 Additional Information, SNH indicated that it no longer objected to the Development on the grounds of risk to the integrity of the Caithness and Sutherland Peatlands Special Protection Area (SPA) and the East Caithness Cliffs SPA and would not object the Development if consented subject to conditions that works are done strictly in accordance with mitigation including:

- Agreement by Scottish Ministers in consultation with SNH of a Habitat Management Plan (HMP) following SNH guidance and including monitoring of sward height across any permanent, long-term open areas that are within 500m of turbines. The agreed Habitat Management Plan is then to be implemented in full.
- Monitoring, under the HMP, of sward height across any permanent, large, long-term, open areas that are within 500m of turbines.
- Avoidance of construction works in the bird breeding season 15 March – 31 August inclusive, or, if not possible, pre-construction surveys for hen-harrier, merlin and short-eared owl carried out following best practice guidance with any necessary mitigation to avoid disturbance; with survey methods agreed with SNH in advance.

35. SNH recommended further measures to reduce the impacts on the natural heritage, including consultation with SNH on monitoring and protection of wildcats; pre-construction surveys for legally protected species across the whole development site; a role for an ecological clerk of works (ECoW) in drafting Species Protection Plans and to oversee implementation of Species Protection Plan and any licensing requirements; separation of 50m between turbine micro-siting allowance and areas of high value bat habitat; design and implementation of mitigation in relation to osprey agreed with a suitable experienced ecologist in consultation with SNH; updating of the Deer Management section of Forestry Commission Scotland's (now Forestry and Land Scotland's) Land Management Plan to reflect the changes in land use, to take account of potential displacement as a result of construction related disturbance; implementation of a decommissioning plan produced in consultation with SNH well in advance of the year of decommissioning to ensure all natural heritage considerations are taken into account.

Internal Scottish Government advisors

36. **Marine Scotland** does not object to the application and advises Scottish Ministers to ensure the Company establishes an integrated hydrochemical (including turbidity and flow data) and macroinvertebrate monitoring programme before, during and after construction. This monitoring programme, in addition to regular visual inspections by the appointed ECoW, should ensure proposed mitigation measures are effective such that fish populations are protected throughout the course of the development. Marine Scotland recommends the avoidance of in-stream works associated with watercourse crossings during the salmonid spawning season. Marine Scotland also recommends both hydrochemical (including turbidity and stream height data) and macroinvertebrate sampling to be carried out at least 12 months prior to construction commencing at sites likely to be impacted and at control sites (where no impact is likely). Marine Scotland adds that similar sampling should continue during and for at least 12 months after construction, with further survey work again one or two years prior to decommissioning, and refers to additional information regarding monitoring (including an action plan, should a problem occur, and reporting mechanisms) from the following website: <http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren>.

37. Marine Scotland suggests the Company consult the Forests and Water UK Forestry Standard Guidelines, particularly regarding the removal of all felled material from within and adjacent to watercourses. Marine Scotland recommends the appointment of an Ecological Clerk of Works (ECoW) to carry out regular visual inspections of all water courses, paying particular attention to watercourses downstream of construction activities, where traffic is frequenting and during and after periods of prolonged precipitation.

38. **Forestry Commission Scotland (FCS)** (now Scottish Forestry, an agency of the Scottish Government) initially objected to the Development as it disagreed with the Company's estimate of the area of 19.98 hectares to be lost to development, and considered that additional compensatory planting was required to comply with the policy on the Control Of Woodland Removal. During the inquiry FCS subsequently withdrew their objection following agreement between FCS, the Highland Council and the Company on wording of a condition to be imposed on any planning permission to secure the volume of compensatory planting required to satisfy FCS' concerns.

39. **Transport Scotland** does not object to the application and recommends that a condition of consent is that the proposed route and accommodation measures for any abnormal load plans are submitted to the trunk roads authority for written approval. Transport Scotland recommends a further condition that any signing or temporary traffic control measures must be undertaken by a recognised QA traffic management consultant, to be approved by Transport Consultant prior to the commencement of deliveries.

Advisors to Scottish Government

40. The Scottish Government obtained the services of consultants **AM Geomorphology Limited** to provide advice on the peat landslide hazard risk assessment (PLHRA) carried out by the Company. AM Geomorphology recommended minor revisions to the Company's PLHRA including clarifications and justification of the scoring of risk and greater emphasis on the prevention of instability rather than response to the aftermath of an event. AM Geomorphology advised that given the sparse peat depth coverage in parts of the site and the proximity of previous landslides to the Development boundary, conditions should be applied to the consent to require approval of a detailed peat landslide risk assessment following best practice contained in "Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments, Second Edition" published by the Scottish Government in April 2017, supported by satisfactory peat depth probing, a scaled plan, and details of mitigation measures prior to commencement of development.

41. AM Geomorphology also recommended conditions to require the appointment of an independent and suitably qualified geotechnical engineer; continuous monitoring of ground conditions during the construction and deforestation phases of the Development; the carrying out of any remediation work considered necessary by the geotechnical engineer, quarterly risk analysis reports informed by monitoring results. Scottish Ministers have considered carefully the advice from AM Geomorphology and consider the recommended peat landslide condition is required, as explained at paragraph 77 of this letter.

Other Consultees

42. **BT** does not object to the Development and concludes the Development should not cause interference to BT's current and presently planned radio networks.

43. The **Civil Aviation Authority** does not object to the Development. It provided details of CAA requirements for lighting, charting and notification but did not suggest any conditions of consent.

44. The **Caithness District Salmon Fishery Board** stated it has no comment to make regarding the Development.

45. The **Defence Infrastructure Organisation** stated that it objected to the Development unless appropriate conditions were imposed upon the consent for:

- An Air Traffic Control Radar Mitigation Scheme designed to mitigate the impact of the development upon the operation of the Primary Surveillance Radar at RAF Lossiemouth and the air traffic control operations of the Ministry of Defence (MOD) which is reliant upon it; and

- Aviation lighting.

Scottish Ministers have included section 36 conditions at Annex 2 Part 1, conditions 5 and 6, which provide the measures requested by the Defence Infrastructure Organisation.

46. **Highlands and Islands Airports Limited (HIAL)** does not object to the Development. It recommends that an assessment be carried out to establish the extent of possible effects on instrument approach procedures for aircraft approaching Wick airport from the south, and whether any effects found can be mitigated. It also advised details of the aviation lighting which will be required to be fitted at the hub height of some of the turbines. Section 36 consent condition 6 requires that the lighting deemed necessary by HIAL is installed.

47. **Joint Radio Company Limited** does not object to the Development.

48. **NATS (En-Route) plc** initially objected to the Development, considering that the Development would have a detrimental impact on the aircraft detection capabilities of Allanshill Radar, which in turn would be unacceptable to two users of Allanshill Radar, Prestwick Centre ATC and RDP Asset Management ATC. NATS subsequently withdrew their objection on 7 March 2018, confirming that it had entered into an agreement around the requirement and delivery of suitable mitigation, which is to be secured by deemed Planning Permission condition 27.

49. **RSPB Scotland** objects to the Development. It has concerns about cumulative pressures on birds of conservation concern in the local area, and is particularly concerned by the lack of information on possible cumulative barrier or displacement impacts along the eastern edge of Caithness. Regarding the restoration of forestry to blanket bog by the Development, RSPB Scotland considers that the presence of turbines is likely to negate any benefits for the qualifying interests of the adjacent Caithness and Sutherland Peatlands SPA that would otherwise have arisen from restoration alone. RSPB Scotland also considers the calculated carbon payback time of 1.9 years is too long and recommends further mitigation to site turbines away from deep peat.

50. The **Scottish Rights Of Way And Access Society (Scotways)** does not object to the Development. It advises that one right of way exits onto the proposed access route for the Development, and recommends that the Company set back all wind turbines a minimum distance, equivalent to the height of the blade tip, from the edge of any public highway (road or other public right of way).

51. **Scottish Water** does not object to the Development. It advised the Company to establish whether Scottish Water assets are in the vicinity of the Development and to take appropriate steps to protect drinking water quality and Scottish Water assets.

52. The following organisations were consulted on the application but did not respond:

- Berriedale and Dunbeath Community Council;
- Halkirk and District Community Council;
- John Muir Trust;
- Latheron, Lybster and Clyth Community Development Company;
- Mountaineering Council of Scotland (now Mountaineering Scotland);
- Scotia Gas Networks;

- Scottish Wildlife Trust;
- Tannach Community Council;
- Watten Community Council; and
- Wick Community Council.

Summary of Public Representations

53. Scottish Ministers received 246 objections and 3 letters of support. The reasons for objection can be broadly categorised as cumulative impact; impact on designated, protected, archaeological and heritage sites; environmental impact (including wild land, habitat, ecology and peat destruction); general objections; health and safety; inefficient generators, landscape and visual impact; impact on the local economy; location (amenity and proximity to settlements); noise; other disruption (transport, tracks, telecommunications, aviation and radar); pollution (water, light and environment); impact on property values; shadow flicker / vibration; impacts on tourism; and, impacts on wildlife. The reasons for support can be broadly categorised as suitable and windy location; revenue for local community and local government; and general support.

The Scottish Ministers Considerations

Main Determining Issues

54. Having considered the Application, the Environmental Statement, the Additional Information, responses from consultees and third parties, the Public Local Inquiry Report and Scottish Government policies, Scottish Ministers consider that the main determining issues are:

- the environmental impacts of the Development, in particular the adverse landscape and visual impacts of the Development; and,
- the extent to which the Development accords with and is supported by Scottish Government policies.

The Policy Context

55. The Development would contribute to and support the Scottish Government Scottish Energy Strategy targets to achieve by 2030, the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources. The Onshore Wind Policy Statement ("OWPS") reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The OWPS sets out the Scottish Government's position for the ongoing need for more onshore wind development and capacity in locations across Scotland where it can be accommodated. As set out in the OWPS, the Scottish Government remains committed to overcoming barriers to deployment to support the growth in onshore wind where possible to help meet climate change and renewables targets.

56. Chapter 2 of the PLI report refers to Scottish Energy Strategy and OWPS and the contribution that the proposal makes to renewable energy generation targets and reducing greenhouse gas emissions are considered at Chapters 2 and 6 of the PLI report.

Landscape and Visual Impact

57. The Development will have significant landscape and visual effects. These effects are relatively confined for a development of the proposed scale, and not disproportionate to a development of the proposed scale. The Development broadly complies overall with both SNH and Highland Council guidance on siting and design.

58. The applicant has sought, through siting and design, to provide reasonable mitigation for landscape and visual effects where they arise.

59. Scottish Ministers agree with the Reporter's reasoning on landscape and visual impact and adopt his conclusions. They consider the landscape and visual impact is significant, but acceptable.

Scotland's Third National Planning Framework

60. Scottish Ministers are satisfied that the Development will make a considerable and valuable contribution towards meeting greenhouse gas emissions and renewable electricity targets, as well as contributing to the diversification of energy supplies.

Scottish Planning Policy (2014) ("SPP")

61. The Scottish Government supports wind energy development in appropriate locations. The SPP sets out that policies and decisions should be guided by certain principles including:

- Giving weight to net economic benefit;
- Supporting delivery of infrastructure, including energy; and
- Protecting the natural heritage, including landscape and the wider environment.

62. Scottish Ministers consider that the Development would result in some significant adverse landscape and visual effects, although not disproportionate to the type and scale of the Development. The Development would not have any significant adverse effect upon any bird or animal species or upon any area designated for its conservation value or any other receptor of conservation value. The Development would contribute to meeting both national renewable energy targets and national targets for reduction in greenhouse gases.

63. As regards SPP, the Development is in a group 3 area, an area where the policy provides that such development is likely to be acceptable. Scottish Ministers have considered the Development against the factors set out in SPP paragraph 169, and have not found significant adverse effects in any respect other than the significant landscape and visual effects identified in chapter 3 of the PLI report and the temporary noise effects of enabling works to the C1053 road. These must be balanced against the Development's effect on greenhouse gas emissions and the scale of its contribution to renewable energy targets. Scottish Ministers find that the balance lies in favour of the proposed development.

64. Scottish Ministers agree with the Reporter that the Development:

- provides renewable energy infrastructure and supports climate change mitigation;
- is well designed to take account of the constraints while mitigating adverse effects;
- makes efficient use of existing capacities of land and minimises waste, including by reusing peat excavated to make way for infrastructure;

- is consistent with the principles for sustainable land use in the Scottish Land Use Strategy, insofar as they are relevant: leaving aside factors already dealt with, the decommissioning proposals would mean the site would not be left derelict at the end of the development's life;
- is designed and sited such that it does not have significant adverse effects on cultural heritage;
- although it has significant adverse landscape effects, has sought to minimise them by its siting and design and thereby protect natural heritage; and
- does respond to the issues, including economic issues, presented by the requirement for renewable energy and for climate change mitigation.

65. Overall, therefore, Scottish Ministers consider that the balance of costs and benefits favours the Development and that it is sustainable.

Local Development Plan (“LDP”)

66. The statutory arrangements for determination of applications under the Act are different from the arrangements under the Town and Country Planning (Scotland) Act 1997 (the 1997 Act). Scottish Ministers note what the Reporter has said about the application of SPP paragraph 33 in relation to the sustainability of a development.

67. Scottish Ministers consider that the decision to grant section 36 and deemed planning permission is not reliant on paragraph 33 of SPP.

68. As regards Highland-Wide Local Development Plan policy 67, the Development would contribute to the meeting of renewable energy targets and would not be likely to have a significant effect on the local or national economy, positive or negative. Scottish Ministers agree with the Reporter that the Development's location, siting and design is not significantly detrimental overall. Balanced against the Development's benefits, its adverse landscape and visual effects and its adverse effects in respect of noise from enabling works on the C1053, are acceptable. Scottish Ministers therefore find that the Development complies with policy 67.

69. The considerations in respect of Highland-Wide Local Development Plan policy 28, insofar as it is relevant, are similar to those for policy 67. In contributing to renewable energy targets and climate change mitigation, the Development does promote the environmental wellbeing of the people of Highland. The generation of waste is minimised. Although there are adverse effects upon residential amenity, they are not such as are unacceptable in such development. There would be no significant adverse effect on habitats, freshwater systems, cultural heritage or air quality, and effects on landscape have been minimised through siting and design in accordance with council guidance. The Development complies with the principles of sustainable design. Scottish Ministers find that the Development complies also with that policy.

70. Overall, as regards the development plan, Scottish Ministers agree with the Reporter that policy 67 is the lead policy for renewable energy development. Since the proposed development complies with that policy and is compatible with other plan policies, Scottish Ministers find that it complies with the development plan.

Carbon Payback

71. The carbon payback for the Development has been presented in the 2017 Additional Information using the approved Scottish Government carbon calculator. In overall terms the Development if built would be expected to have a payback period of 1.9 years of operation (or 6.9 years on worst case expectations).

72. Whilst noting the limitations of any such calculations, the online carbon calculator provides the best available means by which carbon calculations can be provided in a consistent and comparable format.

73. Ministers are satisfied that the Development would provide carbon savings, and that these savings would be of an order that weighs in favour of the Development.

Other relevant matters

74. Other issues raised by parties and contained in the Environmental Statement and additional information were effects on:

- ornithology;
- ecology;
- peat and carbon balance;
- transport (including the effects of the enabling works to the C1053);
- the historic environment;
- amenity, from noise and shadow flicker;
- forestry;
- socio-economics and tourism;
- aviation;
- dark skies; and
- human health.

75. The Reporter set out his findings on these issues in the PLI report which concluded that any impacts of the Development in relation to these matters would be insignificant, acceptable and/or mitigated successfully with conditions. In addition, any influence on property value is not material to the determination of the application.

76. The Scottish Ministers, having taken account of all relevant information agree with the Reporter that the main determining issue was in relation to landscape and visual matters. The Scottish Ministers also agree with the Reporters' conclusion that the Development is supported by national policies that promote the development of onshore wind farms in appropriate locations, and is consistent with the provisions of the Highland Council Local Development Plan, supplementary guidance and national guidance.

77. The Scottish Ministers agree with the Reporter that condition 17 on peat landslide risk management should be amended to reflect the recommendation of the Scottish Government's advisor on peat landslide hazard risk assessment, AM Geomorphology Limited, that there should be regular reporting of risk analysis to the council. However Scottish Ministers consider that further amendments to the Reporter's recommended condition are necessary to provide

the full set of mitigation measures recommended by AM Geomorphology Limited. Scottish Ministers also consider they should be consulted by the Planning Authority on the peat landslide risk assessment and the terms of the appointment of the geotechnical engineer.

78. The Scottish Ministers consider that an additional condition is required to protect the amenity of local residents by restricting construction activity on bank holidays, public holidays and at times outside of normal working hours. Accordingly, condition 30 has been added to those conditions recommended by the Reporter.

79. The Scottish Ministers are satisfied that any adverse environmental effects of the proposal would be satisfactorily mitigated by its siting, design or by the conditions attached to the consent at Annex 2, part one and two.

Duration of planning permission

80. Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission will lapse if development has not begun within a period of 3 years. Section 58(2) of that Act enables Scottish Ministers to direct that a longer period is allowed before planning permission will lapse. Scottish Government policy is that due to the constraints, scale and complexity of constructing such developments, a 5-year time scale for the commencement of development is typically appropriate.

81. As a consequence of the potential delays the COVID 19 pandemic may have on predicted construction timescales the Scottish Ministers consider it is reasonable to add an additional year to typical timescales. The Scottish Ministers therefore direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction if there has been no development within that period.

The Scottish Ministers' Determination

82. The Scottish Ministers have considered fully the Reporters' findings and his reasoned conclusions, including his reasoned conclusion on the likely significant effects of the Development on the environment, and adopt them for the purposes of their own decision, with the exception of the peat landslide risk assessment condition 17 and the construction hours condition 30 as noted in paragraphs 77 and 78 of this decision letter .

83. The Scottish Ministers agree with the Reporters' recommendation that section 36 consent should be granted for the construction and operation of the Golticlay Wind Farm, and that a direction deeming planning permission to be granted should be given for the Development.

84. Scottish Ministers are satisfied having regard to current knowledge and methods of assessment that the reasoned conclusion in terms of the 2017 regulations is still up to date. Committed mitigation measures are set out by the Company throughout the Environmental Statement and Additional Information submissions and are secured by condition 1 of the planning permission deemed to be granted for the Development. Additional mitigation measures and requirements for monitoring of the Development are secured by other conditions of the planning permission.

85. Subject to the conditions set out in **Annex 2 Part 1**, the Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for the construction and operation of the Golticlay wind powered electricity generating station in the Highland Council area, as described in the application, additional information, and public local inquiry report, and as described at **Annex 1**.

86. Subject to the conditions set out in **Annex 2**, the Scottish Ministers direct that **planning permission be deemed to be granted** under section 57(2) of the Town and Country Planning (Scotland) Act 1997 in respect of the Development described in the application, additional information, and public local inquiry report, and as described at **Annex 1**.

Section 36 consent and expiry of Planning Permission

87. The consent hereby granted will last for a period of 25 years from the earlier of: i) the date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or ii) the date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted.

88. Scottish Ministers direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission, and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction, unless the development to which the permission relates is begun before the expiry of that period.

89. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the Company must publicise notice of this determination and how a copy of this decision letter may be inspected on the application website, in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

90. Copies of this letter have been sent to the public bodies consulted on the application including the Planning Authority (The Highland Council), SNH, SEPA and HES. This letter has also been published on the Scottish Government Energy Consents website at <http://www.energyconsents.scot>.

91. The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent.

92. The rules relating to the judicial review process can be found on the website of the Scottish Courts:

<https://www.scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=20>

93. Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely,
[REDACTED]

[REDACTED]
Head of Energy Consents
For and on behalf of the Scottish Ministers
A member of the staff of the Scottish Government



ANNEX 1

Description Of The Development

The Development is comprised of a wind power powered electricity generating station known as Golticlay Wind Farm, with a generating capacity exceeding 50 megawatts, located approximately 15 km south west of Wick and 4.5 km north west of Lybster, in the Highland Council planning area as specified in the Application and accompanying Environmental Statement submitted on 27 October 2016, Additional Information submitted by the Company on 20 June 2017, and Additional Information submitted by the Company to the Public Local Inquiry reporter in 2018.

The Golticlay Wind Farm and related ancillary developments will be comprised of:

- 19 turbines with a blade tip height not exceeding 130 metres;
- 19 turbine foundations and turbine crane pads;
- 1 permanent anemometer mast;
- 2 temporary anemometer masts;
- 1 Control building and substation compound;
- Approximately 13.75 kilometres of access tracks with 8 passing places;
- A total of 8 turning points;
- 21 watercourse crossings, comprised of 11 new crossings and alterations to 10 existing crossings;
- 4 borrow pits;
- 1 temporary construction compound;
- Forest removal and subsequent onsite replanting; and
- Cable trenches of depth 1.5 metres and width 1 metre, with approximate length of cabling 12.105 kilometres.

All as more particularly shown on plan reference Figure 4.1 – Final Layout of the Additional Information, forming **Annex 3** to this letter, which was submitted by the Company (Registered Number 03758407) on 27 October 2017.

ANNEX 2

Part 1

The consent granted in accordance with section 36 of the Electricity Act 1989 is subject to the following conditions:

1. Duration of the Consent

The consent is for a period of 25 years from the earlier of: i) the date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or ii) the date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted. Written confirmation of the date of Final Commissioning shall be provided to the Scottish Ministers no later than one calendar month after the event.

Reason: To define the duration of the consent.

2. Commencement of development

The Development shall be commenced not later than six years from the date of this consent, or such other longer period as the Scottish Ministers may direct in writing following a request by the Company. Written confirmation of the intended date of commencement of the Development shall be provided to the Scottish Ministers and the Planning Authority as soon as is practicable after deciding on such a date.

Reason: To avoid uncertainty and ensure that the consent is implemented within a reasonable period.

3. Non-assignment

This consent may not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment of the consent (with or without conditions) or refuse assignment as they may, in their own discretion, see fit. The consent shall not be capable of being assigned, alienated or transferred otherwise than in accordance with the foregoing procedure. The Company shall notify the planning authority in writing of the name of the assignee, principal named contact and contact details within 14 days of written confirmation from the Scottish Ministers of consent to an assignment having been granted.

Reason: To safeguard the obligations of the consent if transferred to another company.

4. Serious Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent written notification of the nature and timing of the incident shall be submitted to the Scottish Ministers within twenty-four hours of the incident occurring, including confirmation of remedial measures taken and/or to be taken to rectify the breach.

Reason: To keep the Scottish Ministers informed of any such incidents which may be in the public interest.

5. RAF Lossiemouth Air Traffic Control Radar

- (1) No development shall commence unless and until an Air Traffic Control Radar Mitigation Scheme, designed to mitigate the impact of the development upon the operation of the Primary Surveillance Radar at RAF Lossiemouth (“the Radar”) and the air traffic control operations of the Ministry of Defence (MOD) which is reliant upon the Radar, to address the impact of the wind turbines upon air safety, has been submitted to and approved in writing by Scottish Ministers.
- (2) The Air Traffic Control Radar Mitigation Scheme shall set out the appropriate measures to be implemented to mitigate the impact of the development on the Radar and shall be in place for the operational life of the development provided the Radar remains in operation.
- (3) No turbines shall become operational unless and until all those measures required by the approved Air Traffic Control Radar Mitigation Scheme to be implemented prior to the operation of the turbines have been implemented and the Scottish Ministers have confirmed this in writing. The development shall thereafter be operated fully in accordance with the approved Air Traffic Control Radar Mitigation Scheme.

Reason: To maintain air safety.

6. Aviation Lighting

The Company shall install on the Perimeter Turbines MOD-accredited infra-red warning lighting of intensity equivalent to 25 candela or greater with an optimised flash pattern of 60 flashes per minute of 100 milliseconds (ms) to 500ms (ideally 250ms) duration at the highest practicable point on the turbine. The Cardinal Turbines shall be fitted with MOD-accredited combination lighting comprised of steady red lighting with an intensity of 32 candela, and infra-red warning lighting of intensity equivalent to 25 candela or greater with an optimised flash pattern of 60 flashes per minute of 100 milliseconds (ms) to 500ms (ideally 250ms) duration at the highest practicable point on the turbine. The turbines will be erected with this lighting installed and the lighting will remain operational throughout the duration of this consent.

Reason: To maintain air safety.

ANNEX 2

Part 2

The planning permission deemed to be granted under section 57 of the Town and Country Planning (Scotland) Act 1997 for the Development described in Annex 1 is subject to the following conditions:

1. Implementation in accordance with approved plans and requirements

- (1) Except as otherwise required by the terms of the section 36 consent and deemed planning permission, the Development shall be undertaken in accordance with the Application and accompanying Environmental Statement submitted on 27 October 2016, as supplemented by and as amended by the Additional Information submitted by the Company on 20 June 2017, and Additional Information submitted by the Company to the public local inquiry reporter in 2018; and as shown on plan reference Figure 4.1 – Final Layout of the Additional Information submitted by the Company on 27 October 2017.
- (2) Any proposed deviation from the detail provided within these documents must be submitted to and approved in writing by the planning authority.

Reason: *To ensure that the Development is carried out in accordance with the approved details.*

2. Design and operation of turbines

- (1) No turbines shall be erected unless and until details of the proposed turbines have been submitted to, and approved in writing by, the planning authority. These details shall include:
 - a. the make, model, design, of the turbines to be used; and
 - b. the external colour and/or finish of the turbines to be used (including towers, nacelles and blades) which should be non-reflective pale grey semi-matt.
- (2) Furthermore:
 - a. the turbines must have internal transformers; and
 - b. the hub height for turbine T10 (the location of which is shown on the Site Layout Plan) shall not exceed 70 metres.
- (3) Thereafter, development shall progress in accordance with these approved details and, with reference to part ii above, the turbines shall be maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned

Reason: To ensure that only the turbines as approved are used in the development and are acceptable in terms of visual, landscape, and environmental impact considerations .

3. Advertisement on infrastructure

None of the wind turbines, anemometers, power performance masts, switching stations or transformer buildings / enclosures, ancillary buildings or above-ground fixed plant shall display any name, logo, sign or other advertisement (other than health and safety signage) unless otherwise approved in advance in writing by the planning authority.

Reason: In the interests of the visual amenity of the area.

4. Design of substation and ancillary equipment

- (1) No development in respect of the control building, substation and / or ancillary infrastructure shall commence unless and until final details of the location, layout, external appearance, dimensions and surface materials of all buildings, compounds, parking areas, as well as any external lighting (excluding aviation lighting), fencing, walls, paths and any other ancillary elements of the development, have been submitted to, and approved in writing by, the planning authority.
- (2) Thereafter, development shall progress in accordance with these approved details. For the avoidance of doubt, details relating to the control building and substation buildings shall include additional architectural design, landscape and visual appraisal, carried out by suitably qualified and experienced people, to ensure that they are sensitively scaled, sited and designed.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape, noise and environmental impact considerations.

5. Micrositing

- (1) All wind turbines, buildings, masts, borrow pits, areas of hardstanding and tracks shall be constructed in the location shown in table 4.2 of the 2017 FEI. Wind turbines, buildings, masts, borrow pits, areas of hardstanding and tracks may be adjusted by micro-siting within the Site. However, unless otherwise approved in advance in writing by the planning authority (in consultation with SEPA and SNH), micro-siting is subject to the following restrictions:
 - a. No wind turbine foundation shall be positioned higher, when measured in metres Above Ordinance Datum (AOD), than the position shown on the Site Layout Plan;
 - b. No wind turbine or related hardstanding shall be moved more than 50m from the position shown in table 4.2 of the ES and no mast or access track shall be moved more than 50m from the position shown on the Site Layout Plan;

- c. No buildings, temporary construction compound or borrow pits shall be moved more than 100m from the position shown on the Site Layout Plan;
- d. No micro-siting shall take place with the result that infrastructure (excluding floating tracks or hardstanding) is located within areas of peat of greater depth than the original location;
- e. No micro-siting shall take place within areas hosting Ground Water Dependent Terrestrial Ecosystems as identified in the ES;
- f. No micro-siting of the access track between turbine T13 and the construction compound shall be undertaken westwards;
- g. No micro-siting of the access track to turbine T18 shall be undertaken northwards such as to impact upon the shieling hut of Clashmore;
- h. With the exception of water-crossings, no element of the proposed development should be located closer than 50m from the top of the bank of any watercourse; and
- i. All micro-siting permissible under this condition must be undertaken under the direction of the Environmental Clerk of Works (ECoW).

(2) No later than one month after the date of Final Commissioning, an updated site layout plan must be submitted to the planning authority showing the final position of all wind turbines, masts, areas of hardstanding, tracks and associated infrastructure forming part of the Development. The plan should also specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW or planning authority's approval, as applicable.

Reason: to control environmental impacts while taking account of local ground conditions.

6. Borrow pits – scheme of works

- (1) No borrow pit shall be opened up unless and until a site-specific scheme for the working and restoration of each borrow pit forming part of the Development has been submitted to and approved in writing by the planning authority in consultation with SEPA. The scheme shall include:
- a. A detailed prioritisation plan for all borrow pits on site which shall provide detail on which borrow pits are required or likely to be worked and the sequence in which they will be opened up;
 - b. A detailed working method statement based on site survey information and ground investigations;
 - c. Details of the handling of any overburden (including peat, soil and rock);
 - d. Drainage, including measures to prevent surrounding areas of peatland and Ground Water Dependent Terrestrial Ecosystems (GWDTE) from drying out;

- e. A programme of implementation of the works described in the scheme; and
- f. Full details of the reinstatement, restoration and aftercare of the borrow pit(s) at the end of the construction period, to include topographical surveys of pre-construction profiles, and details of topographical surveys to be undertaken of the restored borrow pit profiles.

(2) The approved scheme shall thereafter be implemented in full.

Reason: To ensure that excavation of materials from the borrow pits is carried out in a manner that minimises the impact on road safety, amenity and the environment, and that the mitigation measures contained in the Environmental Statement accompanying the application, or as otherwise agreed, are fully implemented. To secure the restoration of borrow pits at the end of the construction period.

7. Borrow pits – blasting

- (1) No blasting shall take place unless and until such time as a blasting method statement has been submitted to and approved in writing by the planning authority. The method statement shall include details of measures required to minimise the impact of blasting on residential dwellings in the vicinity of the Site. The scheme shall include:
 - a. Details on ground vibration limits at agreed blast monitoring locations;
 - b. Limitations on blasting to between the hours of 10.00 to 16.00 Monday to Friday inclusive and 10.00 to 12.00 on Saturdays, with no blasting taking place on a Sunday or on national public holidays, unless otherwise approved in advance in writing by the planning authority.

(2) Thereafter the approved scheme shall be implemented.

Reason: To ensure that blasting activity is carried out within defined timescales to control impact on amenity and in accordance with best current practice.

8. Planning Monitoring Officer

- (1) No development shall commence unless and until the planning authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant to assist the planning authority in monitoring compliance with the terms of the deemed planning permission and conditions attached to this consent (“PMO”). The terms of appointment shall:
 - a. Impose a duty to monitor compliance with the terms of the deemed planning permission and conditions attached to this consent;
 - b. Require the PMO to submit a monthly report to the planning authority summarising works undertaken on site; and

- c. Require the PMO to report to the planning authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to this consent at the earliest practical opportunity.
- (2) The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post-construction restoration works.

Reason: To enable the development to be suitably monitored to ensure compliance with the consent issued.

9. Ecological Clerk of Works

- (1) No development shall commence unless and until the planning authority has approved in writing the terms of appointment by the Company of an independent Ecological Clerk of Works (ECoW) in consultation with SNH and SEPA. The terms of appointment shall:
 - a. Impose a duty to monitor compliance with the ecological and hydrological commitments provided in the environmental statement and other information lodged in support of the application, the Construction and Environmental Management Plans approved in accordance with condition 10, the Habitat Management Plan approved in accordance with condition 15, any species protection plans identified in the Environmental Statement or 2017 FEI and other plans approved (“the ECoW works”);
 - b. Require the ECoW to report to the Company’s nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
 - c. Require the ECoW to submit a monthly report to the planning authority summarising works undertaken on site;
 - d. Have power to stop the job / activities being undertaken within the Site when a breach or potential breach of environmental legislation occurs to allow for a briefing of the concern to the Company’s nominated construction project manager; and
 - e. Require the ECoW to report to the planning authority any incidences of non-compliance with the ECoW Works at the earliest practical opportunity.
- (2) The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development, throughout any period of construction activity and during any period of post-construction restoration works approved.
- (3) No later than 18 months prior to decommissioning of the Development or the expiration of this planning permission (whichever is the earlier), the Company shall submit details of the terms of appointment by the Company of an independent ECoW throughout the decommissioning, restoration and any aftercare phases of the Development to the planning authority for approval in consultation with SNH and SEPA. The ECoW shall

be appointed on the approved terms throughout the decommissioning, restoration and any aftercare phases of the Development.

Reason: To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development

10. Construction and Environmental Management

- (1) No development shall commence unless and until a finalised Construction and Environmental Management Document is submitted to and agreed in writing by the planning authority in consultation with SEPA and other appropriate consultees as directed by the planning authority. The document shall be based upon the draft Construction Environment Management Plan submitted to Scottish Ministers in June 2017. The document shall include provision for:
- a. An updated Schedule of Mitigation (SM). This should take account of the mitigation measures set out in the ES, and in particular, in ES table 19.1, and any update or amendment to these, or any additional mitigation measure proposed in the 2017 FEI, 2018 AEI or in details approved under these conditions;
 - b. Processes to control / action changes from the agreed Schedule of Mitigation; and;
 - c. The following specific Construction and Environmental Management Plans (CEMPs):
 - i. Details of the construction works, construction methods and surface treatment for all hard surfaces and tracks;
 - ii. Method of construction of the crane pads;
 - iii. Method of construction of the turbine foundations;
 - iv. Method of working cable trenches;
 - v. Method of construction and erection of the wind turbines and meteorological masts
 - vi. Details of watercourse crossings designed to accommodate a 1-in-200-year flood event plus a 20% allowance for climate change;
 - vii. Residual Forest Waste Management Plan;
 - viii. Details of the temporary site compounds, for the storage of materials and machinery, including the areas designated for offices, welfare facilities; fuel storage and car parking;
 - ix. Peat Management Plan – to include details of all peat stripping, excavation, storage and reuse of material in accordance with best practice advice published by SEPA and SNH. The Peat Management Plan shall include a scheme for adjustment of the location of development infrastructure within its micro-siting tolerance permitted under condition 5 so as to minimise impacts upon peat. The Plan should also set out how sensitive peat areas are to be marked out on-site to prevent any vehicle causing inadvertent damage. The Peat Management Plan shall be informed by further peat probing in the vicinity of turbine numbers 10 and 15.

- x. Water Quality Management Plan - highlighting drainage provisions including monitoring / maintenance regimes, water crossings, surface water drainage management (SUDs) and development and storage of material buffers (50m minimum) from water features, unless otherwise agreed in writing by the planning authority in consultation with SEPA;
- xi. Public Water Supply Protection Measures Plan;
- xii. Pollution Prevention Plan
- xiii. Site Waste Management Plan
- xiv. Construction Noise Mitigation Plan.
- xv. Species Protection Plan(s): - including hen harrier, osprey and Scottish wildcat.
- xvi. A plan for pre-construction surveys for legally protected species.
- xvii. A plan for mitigation of effects on Ground Water Dependent Terrestrial Ecosystems.

The relevant CEMPs shall provide that construction work must, where possible, avoid the bird-breeding season (15 March to 31 August inclusive). In cases where this is not possible, the CEMPs shall provide that pre-construction surveys for breeding hen harrier, short-eared owl and merlin must be carried out within the Site boundary and 750 metres beyond following best-practice guidance. Mitigation measures identified in the CEMPs or identified following the survey must be implemented to avoid disturbance. The CEMPs shall provide that the survey method is to be subject to consultation with Scottish Natural Heritage before the survey is carried out.

The species protection plan for hen harrier shall provide that regular monitoring of the hen-harrier roost site identified during baseline surveys will be conducted during the non-breeding season (1 September to 31 March inclusive). It shall further provide that when this roost is observed to be occupied, mitigation measures identified in the species protection plan will be implemented to minimise risk of construction-related disturbance to hen harriers using the roost.

The pre-construction survey for legally protected species must be carried out at an appropriate time of year for the species, at a maximum of 12 months preceding commencement of construction, and a watching brief must then be implemented by the Ecological Clerk of Works (ECoW) during construction. The species that must be surveyed for include (but are not limited to) breeding birds, wild cat, otter, pine martin and water vole. The area that is surveyed must include all areas directly affected by construction plus an appropriate buffer to identify any species within disturbance distance of construction activity and to allow for any micro-siting needs;

- d. A communication plan to ensure all contractors are aware of the possible presence of protected species frequenting the Site and the laws relating to their protection;
- e. The notification and a stop-the-job commitment requirements set out below:

- i. Should an otter holt be found during construction, all works within 200m of the holt shall stop immediately and the SNH Golspie office must be notified and asked for advice.
 - ii. Should a wild cat den be found during construction, all works within 200m of the den shall stop immediately and the SNH Golspie office must be notified and asked for advice.
 - iii. Should any water vole activity be found during construction, all works within 10m of the nearest burrow shall stop. Work may progress if it is in excess of 10m of the nearest burrow, otherwise work shall stop immediately and the SNH Golspie office must be notified and asked for advice;
- f. Site Construction Decommissioning Method Statement highlighting restoration / reinstatement of the working areas not required during the operation of the Development, including temporary access tracks required for construction only, borrow pits, construction compound, storage areas, laydown areas, and other temporary construction areas. Wherever possible, reinstatement is to be achieved by the careful use of turfs removed prior to construction works. Details should include all seed mixes to be used for the reinstatement of vegetation; and
- g. A Construction Method Statement for the approval of the planning authority in consultation with SNH and SEPA incorporating the mitigation measures set out in the Peat Landslide Risk Assessment provided as part of the 2017 FEI.

- (2) Unless otherwise agreed in writing by the planning authority, the development shall then proceed in accordance with the approved Construction Environment Management Document.

Reason: To secure the final detailed information on the delivery of all on-site mitigation projects relating to the development's construction and to protect the environment from the effects of construction and operation of the development

11. Construction Traffic Management

- (1) No development shall commence unless and until a Construction Traffic Management Plan (CTMP) has been submitted to, and approved by, the planning authority in consultation with the relevant roads authority(s) and Transport Scotland. The CTMP, which shall be implemented as approved during all period of construction and decommissioning, must include:
- a. A description of all measures to be implemented by the Company in order to manage traffic during the construction phase (including routing strategies), with any additional or temporary signage and traffic control undertaken by a recognised suitably qualified traffic management consultant;
 - b. The identification and delivery of all upgrades to the public road network, including but not limited to upgrades to the local and trunk road network, to ensure that it is to a standard capable of accommodating construction traffic relating to the Development (including the formation or improvement of any

junctions leading from the Site to the public road) to the satisfaction of the roads authorities, including:

- i. Access by abnormal indivisible loads will be via the A99 and C1053 only;
- ii. An initial route assessment report for abnormal loads and construction traffic, including swept path analysis and details of the movement of any street furniture, any traffic management measures and any upgrades and mitigation measures as necessary;
- iii. An assessment of the capacity of existing bridges and other structures along the construction access routes to cater for all construction traffic, with upgrades and mitigation measures proposed and implemented as necessary;
- iv. A videoed trial run to confirm the ability of the local road network to cater for turbine delivery. Three weeks' notice of this trial run must be made to the local Roads Authority who must be in attendance;

No deliveries by abnormal indivisible loads shall take place until a final assessment of the capacity of existing bridges and structures along the abnormal indivisible load delivery route is carried out and submitted to and approved by the planning authority and full engineering details and drawings of any works required to such structures to accommodate the passage of abnormal indivisible loads have been submitted to and approved by the planning authority. The approved works shall be completed prior to any abnormal indivisible load delivery to the Site for the Development.

- c. A risk assessment for the transportation of abnormal loads to the Site during daylight hours and hours of darkness;
- d. A contingency plan prepared by the abnormal load haulier. The plan shall be adopted only after consultation and agreement with the Police and the respective roads authorities. It shall include measures to deal with any haulage incidents that may result in public roads becoming temporarily closed or restricted.
- e. A procedure for the regular monitoring of road conditions and the implementation of any remedial works required during construction / decommissioning periods.
- f. A detailed protocol for the delivery of abnormal loads/vehicles, prepared in consultation with interested parties. The protocol shall identify any requirement for convoy working and/or escorting of vehicles and include arrangements to provide advance notice of abnormal load movements in the local media. Temporary signage, in the form of demountable signs or similar approved, shall be established, when required, to alert road users and local residents of expected abnormal load movements. All such movements on roads maintained by the local roads authority shall take place outwith peak times on the network, including school travel times, and shall avoid times of local community events.
- g. A detailed delivery programme for abnormal load movements, which shall be made available to the planning authority and community representatives.

- h. Details of any upgrading works required at the junction of the Site access and the public road. Such works may include suitable drainage measures, improved geometry and construction, measures to protect the public road and the provision and maintenance of appropriate visibility splays.
- i. Details of appropriate traffic management which shall be established and maintained at the Site access for the duration of the construction period. Full details shall be submitted for the prior approval of Highland Council, as roads authority.
- j. Wheel washing measures to ensure water and debris are prevented from discharging from the Site onto the public road;
- k. Appropriate reinstatement works shall be carried out, as required by Highland Council, at the end of the turbine delivery and erection period.
- l. Measures to ensure that construction traffic adheres to agreed routes.

Reason : To maintain safety for road traffic and the traffic moving to and from the development, and to ensure that the transportation of abnormal loads will not have any detrimental effect on the road network

12. Road Conditions Surveys

No development shall commence unless and until the planning authority has approved a scheme proposed by the Company for pre-commencement and post-construction condition surveys of roads upon which there is likely to be excessively heavy or other extraordinary traffic associated with the Development's construction. The scheme shall be carried out as approved by the planning authority.

Reason: To ascertain the condition of public roads prior to and post construction of the Development

13. Community Liaison Group

No development shall commence unless and until a Community Liaison Group is established by the Company, in collaboration with the planning authority and the Latheron, Lybster and Clyth Community Council. The group shall act as a vehicle for the community to be kept informed of project progress and shall provide a forum for advanced dialogue on the provision of all transport-related mitigation measures and for keeping under review the timing of the delivery of turbine components, where possible resolving conflict between such delivery and any increased traffic generated by concurrent local events and other development. The Liaison Group, or element of any combined liaison group relating to this development, shall be maintained until the wind farm construction has been completed and is fully operational.

Reason: To assist project implementation, ensuring community dialogue and the delivery of appropriate mitigation measures for example to minimise potential hazards to road users, including pedestrians, travelling on the road networks.

14. Outdoor Access Management Plan

No development shall commence unless and until an Access Management Plan has been submitted to, and agreed in writing by, the planning authority. The plan should ensure that public access is retained within the Site during construction so far as possible subject to health and safety requirements, and thereafter that existing levels of public access are not restricted as a result of the operational phase of the wind farm. The plan as agreed shall be implemented in full, unless otherwise approved in writing with the planning authority

Reason: In the interests of securing and enhancing public access rights

15. Habitat Management Plan

- (1) No development shall commence unless and until a Habitat Management Plan (HMP) has been submitted to and approved in writing by the planning authority in consultation with SNH. The HMP shall be based on the principles of the draft Habitat Management Plan (June 2017) and shall set out proposed habitat management within the Site during the period of construction, operation, decommissioning, restoration and any aftercare of the Site, and shall provide for the maintenance, monitoring and reporting of sward height across any permanent, long term, open areas within the Site that are within up to 500m of wind turbines.
- (2) The approved HMP will include provision for regular monitoring and review to be undertaken to consider whether amendments are needed to better meet the habitat plan objectives. In particular, the approved HMP will be updated to reflect ground condition surveys undertaken following construction and prior to the date of Final Commissioning and submitted to the planning authority for written approval in consultation with SNH and SEPA.
- (3) The approved HMP shall be implemented in full, subject to any such approved updates.

Reason: In the interests of good land management and the protection of habitats

16. Programme of Archaeological Works

No development shall commence unless and until the planning authority has approved the terms of a programme of archaeological works to be observed during construction of the Development, to include measures to be taken to protect and preserve any features of archaeological interest in situ where practicable and the recording and recovery of archaeological features which cannot be so preserved. The approved scheme of archaeological works shall thereafter be implemented in full.

Reason: To ensure the protection or recording of archaeological features on the site.

17. Peat Landslide Management

- (1) No development shall commence unless and until a detailed Peat Landslide Risk Assessment ('PLRA'), addressing the construction phase of the development and post-

construction monitoring, has been approved in writing by the planning authority in consultation with Scottish Ministers.

- a. The PLRA shall comply with best practice contained in “Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments, Second Edition” published by the Scottish Government in April 2017, or such replacement standard as may be in place at the time of submission of the peat landslide risk assessment for approval.
 - b. The PLRA shall be supported by peat depth probing in accordance with Table 2 (Further Assessment of Peatland Extent and Conditions) in “Peatland Survey. Guidance on Developments on Peatland” published by the Scottish Government, Scottish Natural Heritage and SEPA in 2017.
 - c. The peat landslide risk assessment shall include a scaled plan and details of any mitigation measures to be put in place. The mitigation measures in the approved PLRA shall thereafter be implemented in full.
- (2) No development shall commence unless and until the terms of appointment for an independent and suitably qualified geotechnical engineer (including specification of duties and duration of appointment) have been submitted to, and approved by, the Planning Authority in consultation with Scottish Ministers, and the approved engineer has been appointed.
- a. Continuous monitoring of ground conditions during the construction and deforestation phases of the Development shall be carried out.
 - b. Continuous analysis and call out services shall be provided by the geotechnical engineer throughout the construction phase of the Development.
 - c. If a risk of peat failure is identified such geotechnical instrumentation to monitor ground conditions as is recommended by the geotechnical engineer shall be installed and ground conditions shall be monitored.
 - d. Any remediation work considered necessary by the geotechnical engineer shall be implemented to the satisfaction of the geotechnical engineer.
 - e. Monitoring results shall be fed into risk analysis reports, which shall be submitted to the Planning Authority and copied to Scottish Ministers on a quarterly basis during the construction and deforestation phases of the Development.

Reason: To minimise the risk of peat failure arising from the Development

18. Television reception mitigation

- (1) No development shall commence unless and until a Television Reception Mitigation Plan has been submitted to, and approved in writing by, the planning authority. The Television Reception Mitigation Plan shall provide for a baseline television reception

survey to be carried out prior to the installation of any turbine forming part of the Development, the results of which shall be submitted to the planning authority.

- (2) For the avoidance of doubt the scheme shall include, but not be limited to:
 - a. details of publication and publicity for the scheme;
 - b. a reasonable timescale for investigation of any claims;
 - c. details for reporting mechanism to the planning authority the number of complaints / claims; and
 - d. details of the length of the operation of the mitigation scheme.
- (3) The approved Television Reception Mitigation Plan shall thereafter be implemented in full.
- (4) Any claim by any individual person regarding television picture loss or interference at their house, business premises or other building, as a result of the Development made during the period from installation of any turbine forming part of the Development to the date falling twelve months after the date of Final Commissioning, shall be investigated by a qualified engineer appointed by the Company and the results shall be submitted to the planning authority. Should any impairment to the television signal be attributable to the Development, the Company shall remedy such impairment so that the standard of reception at the affected property is no worse than the baseline television reception.

Reason: To ensure local television services are sustained during the construction and operation of this development

19. Redundant turbines

- (1) The Company shall, at all times after the date of Final Commissioning, record information regarding the monthly supply of electricity to the national grid from the Site as a whole and electricity generated by each individual turbine within the development and retain the information for a period of at least 12 months. The Company shall make such of that information as may be reasonably required for the purposes of verifying that electricity has been exported from any one or more of the turbines available to the planning authority within one month of any request by them.
- (2) If any one or more of the wind turbines hereby permitted cease to export electricity to the grid for a continuous period of 6 months, unless otherwise agreed in writing with the planning authority, then a scheme shall be submitted to the planning authority for its written approval within 3 months from the end of that 6 month period for the repair or removal of those turbines. The scheme shall include a programme of remedial or repair works to the relevant turbine(s) and requirements for monthly reporting to the planning authority on progress with such works. If the said turbine(s) have not begun exporting electricity to the grid within a period of 6 months from approval of the said scheme, unless otherwise agreed in writing with the planning authority, then a scheme shall be submitted to the planning authority with a programme for removal of the relevant

turbines and associated above-ground works approved under this permission and the removal of the turbine foundations to a depth of at least 1 metre below ground and for site-restoration measures following the removal of the relevant turbine. The scheme shall thereafter be implemented in accordance with the approved details and timetable.

- (3) This condition shall not apply if outages are outwith the Company's control or are a consequence of any emergency or requirement of National Grid. In these instances the planning authority shall be informed of the turbine shutdowns, reasons for the turbine shutdowns and timescales for the outages within 5 working days of the turbines being switched off.

Reason: To ensure appropriate provision is made for turbine(s) requiring repair or for turbine(s) which require decommissioning

20. Aviation safety

No development shall commence unless and until the Company has provided the planning authority, Ministry of Defence, Defence Geographic Centre and NATS with the following information, and has provided evidence to the planning authority of having done so:

- a. the date of the expected commencement of each stage of construction;
- b. the height above ground level of the tallest structure forming part of the Development;
- c. the maximum extension height of any construction equipment; and
- d. the position of the turbines and masts in latitude and longitude.

Reason: in the interests of aviation safety

21. Site decommissioning, restoration and aftercare

- (1) No development shall commence unless and until an Interim Decommissioning and Restoration Plan (IDRP) for the Site has been submitted to, and approved in writing by, the planning authority in consultation with SEPA. Thereafter:
- a. not later than 3 years prior to the decommissioning of the Development, the IDRP shall be reviewed by the Company, to ensure that the IDRP takes account of best practice in decommissioning prevailing at the time and ensures that site specific conditions, identified during construction of the Site, and subsequent operation and monitoring of the Development are given due consideration. A copy shall be submitted to the planning authority for its written approval, in consultation with SNH and SEPA; and
 - b. not later than 12 months prior to the decommissioning of the Development, a detailed Decommissioning and Restoration Plan (DRP), based upon the

principles of the approved interim plan, shall be submitted to, and approved in writing by, the planning authority, in consultation with SNH and SEPA.

- (2) The IDRPs and subsequent DRPs shall include (unless otherwise agreed in writing with the Planning Authority and in accordance with legislative requirements and published best practice at time of decommissioning) details about the removal of the Development, including where necessary details of a) justification for retention of any relevant elements of the Development, b) the treatment of disturbed ground surfaces, c) management and timing of the works, d) environmental management provisions and e) a traffic management plan to address any traffic impact issues during the decommissioning period. The DRPs shall be implemented as approved. If a Final DPR is not approved by the planning authority in advance of the decommissioning, the Interim IDRPs shall be implemented, unless otherwise agreed in writing by the planning authority.

Reason: To ensure that all wind turbines and other redundant development are removed from site at the end of the Development's permitted life in the interests of safety, amenity, environmental protection and securing planning control.

22. Financial guarantee

(1) No development shall commence unless and until:

- a. Full details of a guarantee, bond or other financial provision to be put in place to cover all of the decommissioning and Site restoration measures outlined in the Decommissioning and Restoration Plan approved under condition 21 of this permission have been submitted to, and approved in writing by, the planning authority; and
- b. Confirmation in writing by a suitably qualified independent professional that the amount of financial provision proposed under part (i) above is sufficient to meet the full estimated costs of all decommissioning, dismantling, removal, disposal, Site restoration, remediation and incidental work, as well as associated professional costs, has been submitted to, and approved in writing by, the planning authority; and
- c. Documentary evidence that the guarantee, bond or other financial provision approved under paragraphs (a) and (b) above is in place has been submitted to, and confirmation in writing that the financial provision is satisfactory has been issued by, the planning authority.

(2) Thereafter, the Company shall:

- a. Ensure that the guarantee, bond or other financial provision is maintained throughout the duration of this permission; and
- b. Pay for the guarantee, bond or other financial provision to be subject to a review five years after the Commencement of Development and every five years

thereafter until such time as the wind farm is decommissioned and the Site restored.

(3) Each review shall be:

- a. conducted by a suitably qualified independent professional; and
- b. published within three months of each five year period ending, with a copy submitted upon its publication to both the landowner(s) and the planning authority; and
- c. subject to approval in writing by the planning authority either without amendment or, as the case may be, following amendment to the planning authority's reasonable satisfaction.

(4) Where a review approved under paragraph (3) (c) above recommends that the amount of the guarantee, bond or other financial provision should be altered (be that an increase or decrease) or the framework governing the bond or other financial provision requires to be amended, the Company shall make such an alteration within one month of receiving that written approval, or another timescale as may be agreed in writing by the planning authority, and in accordance with the recommendations contained therein.

Reason: To ensure financial security for the cost of the restoration of the site to the satisfaction of the planning authority

23. Salmon

No works shall take place within 50m of a water course during salmon-spawning season (from November to February (inclusive)) without the prior approval of the planning authority.

Reason: In the interests of nature conservation to avoid impact on salmon.

24. Water quality and fish-population monitoring

(1) No development shall commence unless and until an integrated hydrochemical and macroinvertebrate scheme for water quality monitoring and monitoring fish populations during construction has been submitted to and approved in writing by the planning authority. This shall include, but not necessarily be limited to:

- a. Frequency of monitoring during the construction period, not less than once a month;
- b. Reporting mechanism to the planning authority, Marine Scotland and SEPA being not less than quarterly during the construction period;
- c. Proposed method for agreeing mitigation required.

(2) Thereafter, any mitigation identified shall be implemented

Reason: To secure monitoring that will identify any adverse effect of the development on water quality or river species and to secure mitigation should such an effect arise.

25. Sustainable drainage systems

No development shall commence unless and until full details of all surface water drainage provision within the Site (which should accord with the principles of Sustainable Urban Drainage Systems (SUDS) and be designed to the standards outlined in Sewers for Scotland Third Edition, or any superseding guidance prevailing at the time) have been submitted to, and approved in writing by, the planning authority. Thereafter, only the approved details shall be implemented and all surface water drainage provision shall be completed prior to the date of Final Commissioning.

Reason: To ensure that surface water drainage details are provided timeously and comply with the principles of SUDS; in order to protect the water environment

26. Noise

The rating level of noise immissions from the combined effects of the wind turbines hereby permitted (including the application of any tonal penalty), when determined in accordance with the attached Guidance Notes, shall not exceed the values for the relevant integer wind speed set out in or derived from Tables 1 and 2 attached to these conditions. Furthermore:

(A) Where there is more than one dwelling at a location specified in Tables 1 and 2 attached to this condition, the noise limits set for that location shall apply to all dwellings at that location. In the event of a noise complaint relating to a dwelling which is not identified by name or location in the Tables attached to these conditions, the Company shall submit to the planning authority, for written approval, proposed noise limits to be adopted at the complainant's dwelling for compliance checking purposes. The submission of the proposed noise limits to the planning authority shall include a written justification of the choice of limits. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the planning authority for the complainant's dwelling.

(B) No electricity shall be exported on a commercial basis to the grid until the Company has submitted to the planning authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the planning authority.

(C) There shall be no Commencement of Development until a Noise Measurement and Mitigation Scheme has been submitted to, and approved in writing by, the planning authority. The scheme shall include:

- A framework for the measurement and calculation of the rating level of noise immissions from the wind farm (including the identification of any tonal component) to be undertaken in the event of a complaint in accordance with ETSU-R-97 and its associated Good Practice Guide and Supplementary Guidance Notes.

- A framework for implementing the curtailment measures as outlined described in chapter 8 of the 2017 FEI, where necessary to ensure the values in Tables 1 and 2 are not exceeded.

(D) Within 21 days from receipt of a written request of the planning authority, following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the Company shall, at its expense, employ an independent consultant approved by the planning authority to assess the rating level of noise immissions from the wind farm at the complainant's property in accordance with the approved Noise Measurement & Mitigation Scheme. The written request from the planning authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the planning authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

Within 14 days of receipt of a written request from the planning authority, the Company shall provide the planning authority with the information relevant to the complaint logged in accordance with paragraph (G) of this condition.

The independent consultant's assessment must be undertaken in accordance with the approved Noise Measurement & Mitigation Scheme and must relate to the range of conditions which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the information provided in the written request from the planning authority and such other conditions as the independent consultant considers necessary to fully assess the noise at the complainant's property.

(E) The Company shall provide to the planning authority the independent consultant's assessment of the rating level of noise immissions within 2 months of the date of the written request of the planning authority, unless the time limit is extended in writing by the planning authority. All data collected for the purposes of undertaking the compliance measurements shall be made available to the planning authority on the request of the planning authority. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the planning authority with the independent consultant's assessment of the rating level of noise immissions.

(F) Where a further assessment of the rating level of noise immissions from the wind farm is required to assess the complaint, the Company shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment to the planning authority unless the time limit for the submission of the further assessment has been extended in writing by the planning authority.

(G) Within one week of the planning authority receiving an assessment which identifies that the wind farm noise levels are exceeding any of the limits in Tables 1 & 2 attached to this condition, the Company will implement mitigation measures in accordance with the approved Noise Measurement & Mitigation Scheme.

(H) The Company shall continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d). These data shall be retained for a period of not less than 24 months. The Company shall provide this information in the format set out in Guidance

Note 1(e) to the planning authority on its request, within 14 days of receipt in writing of such a request.

Note: For the purposes of this condition, a “dwelling” is a building within Use Class 9 of the Use Classes Order or any other dwellinghouse which lawfully exists or had planning permission at the date of this consent.

Table 1: Between 07:00 and 23:00 hours (Noise Level in dB LA90, 10-min)

Location	Standardised Wind Speed at Ten Metres Height, m/s, within the Site averaged over 10-minute periods									
	4	5	6	7	8	9	10	11	12	
	LA90 Decibel Levels									
Bulreanrob	34.8	34.8	34.5	34.1	35.0	36.4	37.5	38.1	38.5	
Camster Lodge	35.0	35.0	35.0	35.5	36.2	36.5	36.6	36.6	36.6	
The Log House	34.5	34.5	35.8	37.2	38.3	38.9	39.1	39.1	39.0	
Gamekeepers Cottage	34.4	37.4	40.1	41.9	43.2	43.8	43.9	43.6	43.4	
Roadside Cottage	35.0	35.0	35.0	36.3	37.7	38.7	38.7	38.7	38.7	
Plover Hill	35.0	35.0	35.0	35.5	35.9	36.3	36.3	36.3	36.3	
Lane House	35.0	35.0	35.0	35.0	35.3	36.7	38.1	39.5	40.7	

Table 2: Between 23:00 and 07:00 hours (Noise Level in dB LA90, 10-min)

Location	Standardised Wind Speed at Ten Metres Height, m/s, within the Site averaged over 10-minute periods								
	4	5	6	7	8	9	10	11	12
	LA90 Decibel levels								
Bulreanrob	37.9	37.9	37.8	37.6	37.5	37.4	37.3	37.8	39.0
Camster Lodge	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
The Log House	37.8	37.7	37.3	36.6	36.2	35.9	35.7	37.7	40.4
Gamekeepers Cottage	38.0	38.0	41.1	40.6	39.6	38.8	39.2	41.3	43.8
Roadside Cottage	37.8	37.6	37.5	36.9	35.8	34.4	35.9	38.8	38.7
Plover Hill	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
Lane House	38.0	38.0	38.0	38.0	38.0	38.0	38.0	39.7	41.4

Table 3: Coordinate locations of the properties listed in tables 1 and 2

Location	Easting	Northing
Bulreanrob	321994	938554
Camster Lodge	326126	941780
The Log House	322658	937864
Gamekeepers Cottage	322737	938804
Roadside Cottage	326186	939618
Plover Hill	324639	937695
Lane House	326171	938570

Note to Tables 1 & 2: The wind speed standardised to 10 metres height within the Site refers to wind speed at 10 metres height derived in accordance with the method given in the attached Guidance Notes

Note to Table 3: The geographical coordinate references set out in these tables are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies

27. Radar mitigation: NATS

- (1) No part of any turbine shall be erected above ground until a Primary Radar Mitigation Scheme agreed with the Operator has been submitted to and approved in writing by the planning authority in order to avoid the impact of the Development on the Primary Radar of the Operator located at Alanshill and associated air traffic management operations.

- (2) No part of any Turbine shall be erected above ground until the approved Primary Radar Mitigation Scheme has been implemented and the Development shall thereafter be operated fully in accordance with such approved Scheme.

For the purpose of parts 1 and 2 above:

"Operator" means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants PO15 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act).

"Primary Radar Mitigation Scheme" or "Scheme" means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the development on the Allanshill primary radar and air traffic management operations of the Operator.

Reason: To ensure aviation safety and that the proposed development's operation does not disrupt air traffic.

28. Wildcat monitoring

No development shall commence unless and until the planning authority has approved in writing a scheme for post-construction monitoring to safeguard Scottish wildcat during the operational period of the Development, at locations where there is suitable habitat within the Site. This post-construction monitoring scheme shall provide for monitoring, during the wildcat breeding season, to take place in Year 1, 5, 10, 15, and 25 from Final Commissioning, or such other frequency as may be approved by the planning authority following consultation with Scottish Natural Heritage, and shall include regular reporting to Scottish Natural Heritage of the findings of the agreed monitoring and identify any mitigation which may be required if Scottish Wildcat is confirmed to be present on the Site.

Reason: To enable the impact on wildcat to be suitably monitored

29. Revocation of planning permission for the Rumster windfarm

No development shall commence unless and until the Company has entered into an undertaking with the relevant landowners of the site to agree to the revocation of existing planning permission for Rumster windfarm within the Site. The draft undertaking provided by the Company as an inquiry document (reference APP 008.001) shall be finalised and signed accordingly. The signed undertaking shall be submitted to the Planning Authority.

Reason: To eliminate the possibility of the occurrence of significant cumulative environmental effects which have not been assessed.

30. Construction Hours

- (1) Construction work which is audible from any noise-sensitive receptor shall only take place on the site between the hours of 07:30 to 19:00 on Monday to Friday inclusive and 08:00 to 16:00 on Saturdays, with no construction work taking place on a Sunday or on

a Bank Holiday or Public Holiday. Outwith these specified hours, development on the site shall be limited to turbine delivery and erection, commissioning, maintenance, dust suppression, and pouring of concrete foundations (provided that the developer retrospectively notifies the Planning Authority of the works within 24 hours if prior notification is not possible). In addition, access for security reasons, emergency responses or to effect any necessary environmental controls is permitted outwith these hours.

- (2) Movements of heavy goods vehicles (HGVs) to and from the site during construction of the Development shall be limited to 07:00 hours to 19:00 hours Monday to Friday and 08:00 to 16:00 hours on Saturdays and no vehicular access during these periods shall take place on Sundays or Bank Holidays, unless previously approved in writing by the Planning Authority.

Reason: In the interests of local amenity.

31. Compensatory Planting

- (1) No development (other than Permitted Preliminary Works) shall commence unless and until a compensatory woodland planting scheme to compensate for the loss of 232 hectares of existing woodland (“the Replanting Scheme”), which complies with the requirements of the UK Forestry Standard (or such replacement standard as may be in place at the time of submission of the Replanting Scheme) and the guidelines to which it refers, has been submitted to, and approved in writing by, the Planning Authority in consultation with the Scottish Ministers.

- (2) The Replanting Scheme must include:

- a. details of the proposed planting, including:
 - i. The location of any and all area(s) to be planted,
 - ii. The landowners and occupiers of the land to be planted; and
- b. detail of the associated timescales for implementing the compensatory planting including any phasing. Compensatory planting shall be completed no later than two years following the Commencement of Development;
- c. detail of any statutory consents required to carry out the compensatory planting;
- d. proposals for the maintenance, for a minimum period of 10 years, and the establishment of a replanting scheme. These proposals shall include details of the frequency of checks, suitable triggers for any necessary replacement planting, the timing of replacement planting, fencing, ground preparation and drainage;
- e. proposals for reporting to the Planning Authority and Scottish Ministers on compliance with timescales for obtaining the necessary consents and thereafter for implementation of the Compensatory Planting Plan.

- (3) The Replanting Scheme approved under part (1) of this condition shall be implemented in full, unless otherwise agreed in writing by the Planning Authority after consultation with the Scottish Ministers.

Reason: To secure compensatory planting from the loss of woodland arising from the Development.

32. Definitions relating to conditions

Definitions	
2017 FEI	Means the further environmental information submitted in June 2017.
2018 AEI	Means (a) the additional environmental information comprising an aviation lighting assessment submitted 1 June 2018 and (b) the additional environmental information relating to wild cat and the C1053 enabling works submitted 8 June 2018.
Cardinal Turbines	Means wind turbines numbered 3, 5, 10 and 17 on Figure 4.1 – Final Layout contained within volume 2 of the Environmental Statement.
Consent	Means the consent granted under section 36 of the Electricity Act 1989 to construct and operate the generating station, which forms part of the Development, and any reference to Consent shall not be taken to include the deemed planning permission unless otherwise stated.
Commencement of Development	Means the initiation of any development pursuant to the consent and/or the deemed planning permission by the carrying out of a material operation within the meaning of section 26 of the Town and Country Planning (Scotland) Act 1997 but excluding the Permitted Preliminary Works.
Company	Means E.ON Climate & Renewables UK Developments Limited (Company Number 03758407) or in substitution its permitted assignees who are in possession of a letter of authorisation from the Scottish Ministers in accordance with Consent Condition 3.
Development	Means the wind powered generating station and ancillary development located within the Site as described in Annex 1 of this decision.
ES	Means the Environmental Statement submitted by the Company in October 2016.
Final Commissioning	Means the earlier of (i) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (ii) the date falling thirty six months from the date of Commencement of Development.
Guidance Notes	Means the guidance notes to condition 28 on noise provided in section 4 of this appendix.
Perimeter Turbines	Means wind turbines numbered 1, 2, 4, 11, 15, 16, 18 and 19 on Figure 4.1 – Final Layout contained within volume 2 of the Environmental Statement.
Permitted preliminary works	Means (i) any site investigation or other preparatory works or surveys which do not involve breaking ground and/or which are required for the purpose of satisfying or discharging any pre-commencement obligations under the planning conditions, and (ii) the provision of any temporary contractors' facilities within the Site which are necessary for (i) above.
Planning permission	Means the deemed planning permission for the Development granted by direction under section 57 of the 1997 Act.
Site	Means the area of land delineated by the outer edge of the red line on the Site Layout Plan.
Site Layout Plan	Means Figure 4.1 as included with the 2017 FEI (drawing number G_170515_FEI_4.1_v1) Annex 3 to this decision.

33. Guidance Notes for Noise Conditions

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled “The Assessment and Rating of Noise from Wind Farms” (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

(a) Values of the LA90,10 minute noise statistic should be measured at the complainant’s property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Planning Authority, and placed outside the complainant’s dwelling. Measurements should be made in “free field” conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the Company shall submit for the written approval of the planning authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.

(c) The LA90,10 minute measurements should be synchronised with measurements of the 10-minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the Company shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the planning authority, such as direct measurement at a height of 10 metres, this wind speed, averaged across all operating wind turbines, and corrected to be representative of wind speeds measured at a height of 10m, shall be used as the basis for the analysis. It is this 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2. All 10-minute periods shall commence on the hour and in 10- minute increments thereafter.

(e) Data provided to the planning authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

(f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b).

(b) Valid data points are those measured in the conditions specified in the agreed written protocol under paragraph (d) of the noise condition, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions the planning authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90,10 minute noise measurements and corresponding values of the 10- minute 10-metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the 10- metre height mean wind speed on the X-axis. A least squares, “best fit” curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where, in accordance with the approved assessment protocol under paragraph (d) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

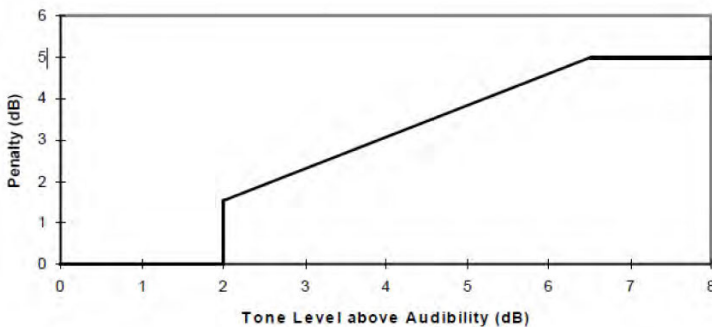
(b) For each 10 minute interval for which LA90,10 minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

(d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.

(e) A least squares “best fit” linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the planning authority in its written protocol under paragraph (d) of the noise condition.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant’s dwelling approved in accordance with paragraph (e) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The Company shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e) Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the planning authority in its written request under paragraph (c) and the approved protocol under paragraph (d) of the noise condition.

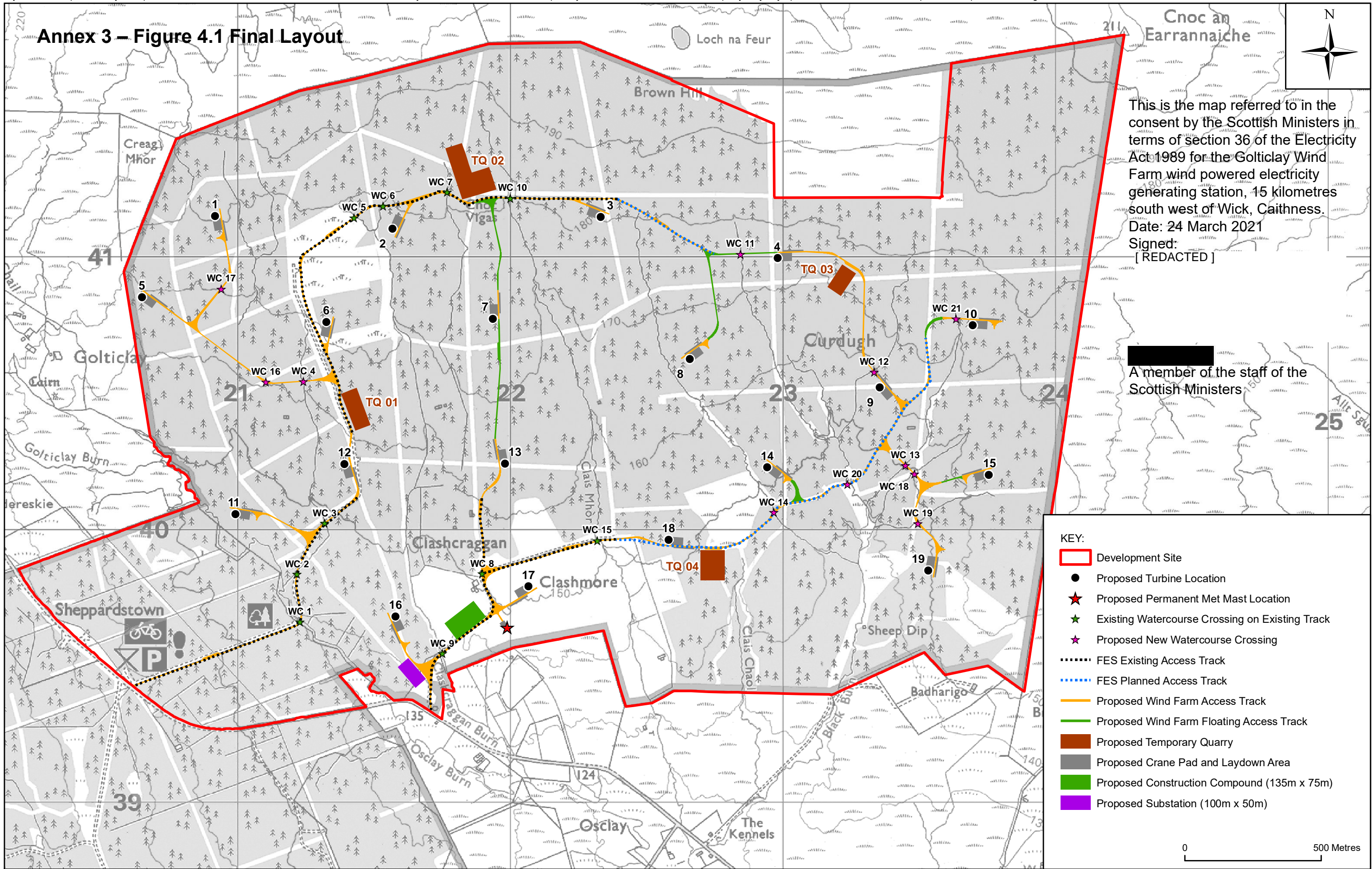
(f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

(g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the planning authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the planning authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then the Development fails to comply with the conditions.

Annex 3 – Figure 4.1 Final Layout



This is the map referred to in the consent by the Scottish Ministers in terms of section 36 of the Electricity Act 1989 for the Golticlay Wind Farm wind powered electricity generating station, 15 kilometres south west of Wick, Caithness.
 Date: 24 March 2021
 Signed: [REDACTED]

A member of the staff of the Scottish Ministers

KEY:

- Development Site
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast Location
- ★ Existing Watercourse Crossing on Existing Track
- ★ Proposed New Watercourse Crossing
- FES Existing Access Track
- FES Planned Access Track
- Proposed Wind Farm Access Track
- Proposed Wind Farm Floating Access Track
- Proposed Temporary Quarry
- Proposed Crane Pad and Laydown Area
- Proposed Construction Compound (135m x 75m)
- Proposed Substation (100m x 50m)

0 500 Metres

Client: **e-on**

Project: **GOLTICLAY WIND FARM
 FURTHER ENVIRONMENTAL INFORMATION**

Title: **FIGURE 4.1
 FINAL LAYOUT**

AECOM
 One Trinity Gardens
 Quayside
 Newcastle, NE1 2HF
 Tel +44 (0) 191 224 6500
 Fax +44 (0) 191 224 6599
 www.aecom.com

Drawn: LC	Checked: SY
Verified: CS	Approved: CS
Date: MAY 2017	Scale at A3: 1:12,500
Drawing Number: G_170515_FEI_4.1_v1	A3



T: 0141 242 0361

█ @gov.scot

█
3R Energy Solutions Limited
Lanark Auction Market
Hyndford Road
Lanark
ML11 9AX

26 February 2020

Dear █

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF THE REPOWERED AND EXTENDED HAGSHAW HILL WIND FARM WITHIN THE PLANNING AUTHORITY AREA OF SOUTH LANARKSHIRE COUNCIL

Application

I refer to the application made on 12 December 2018 under section 36 of the Electricity Act 1989 (“the Electricity Act”) made by Hagshaw Hill Repowering Limited, a company incorporated under the Companies Acts with company number SC603085 (a subsidiary of 3R Energy Solutions Ltd), and having its registered office at Lanark Auction Market, Hyndford Road, Lanark ML11 9AX for the construction and operation of the repowered and extended Hagshaw Hill Wind Farm, an electricity generating station comprising 14 wind turbines with a maximum blade tip height of 200 metres and battery storage facility (“the proposed Development”).

The proposed Development is located at Hagshaw Hill, 3.2km to the west of Douglas in the South Lanarkshire Council area with a total generating capacity in excess of 50 Mega Watts (MW).

This letter contains the Scottish Ministers’ decision to grant section 36 consent for the proposed Development as described at Annex 1.

Planning Permission

In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 the Scottish Ministers, may on granting consent under section 36 of the Electricity Act for the construction and operation of a generating station direct that planning permission be deemed to be granted in respect of that generating station and any ancillary development.

This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.

Background

The existing Hagshaw Hill Wind Farm is operational and comprises 26 wind turbines at 55m height to tip, and associated infrastructure with a total generating capacity of 15.6MW. Planning permission was granted by the then Clydesdale District Council in February 1995 and it was constructed the same year to become Scotland's first commercial wind farm. It is this existing wind farm that is being repowered and extended south under this consent.

A further planning permission was granted consent by South Lanarkshire Council for an extension to the Hagshaw Hill Wind Farm in December 2006. The Hagshaw Hill Extension Wind Farm became operational in 2008 and comprises 20 wind turbines at 80m height to tip with a generating capacity of 26MW. The Hagshaw Hill Extension Wind Farm are in two groups: 9 wind turbines are located to the west of the proposed Development and 11 wind turbines are located to the east of the proposed Development. The Hagshaw Hill Extension Wind Farm's current consent allows it to continue to operate until at least 2033 and does not form part of this section 36 Application.

On 12 December 2018, the Company submitted an application to construct and operate the repowered and extended Hagshaw Hill Wind Farm. The application proposed 14 turbines with ground to blade tip height of up to 200 metres, and an installed capacity of up to 84MW together with an energy storage facility of up to 20MW (anticipated total output up to 20MWh).

The proposed Development comprises 7 turbines to be located on the existing wind farm site with the removal of the existing 26 turbines. The additional 7 turbines and energy storage facility are to be located south of the existing wind farm on moorland and agricultural land.

Legislation

Under Schedule 8 to the Electricity Act, and the Electricity (Applications for Consent) Regulations 1990 (“the Consents Regulations”) made under the Electricity Act, the relevant Planning Authority is required to be notified in respect of a section 36 consent application. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (“the EIA Regulations”) the Company submitted an Environmental Impact Assessment report (“the EIA report”) in support of the application describing the proposed Development and giving an analysis of its environmental effects.

In addition, to comply with the EIA Regulations, Scottish Ministers are required to consult the Planning Authority, as well as Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES) as well as other persons that are likely to be concerned by the proposed development by reason of their specific environmental responsibilities.

In accordance with requirements of both the Consents Regulations and the EIA Regulations, a notice of the proposed Development was published on the Company’s website and advertised in local and national press. The application was also placed in the public domain, and the opportunity given for those wishing to make representations to do so. Notifications were sent to South Lanarkshire Council as the relevant Planning Authority as well as to SNH, SEPA and HES.

Scottish Ministers have had regard to the matters set out in Schedule 9 of the Electricity Act in respect of the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

Scottish Ministers have given consideration to the extent to which the Company has demonstrated in the Application submitted that they have done what they reasonably can to mitigate any effect, which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites buildings or objects.

In accordance with section 36(5A) of the Electricity Act, before granting any section 36 consent Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to protection of the water environment; and
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

SEPA’s advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the proposed Development. In their response to Scottish Ministers, they direct the Company to the Regulations section of the SEPA website for advice on regulatory requirements and good practice advice.

Scottish Ministers are satisfied that the EIA report has been produced in accordance with the EIA Regulations. Scottish Ministers have assessed the environmental impacts of the proposed Development and taken the Application, EIA report, representations, consultation responses including those from SNH, SEPA, HES and South Lanarkshire Council (the Planning Authority) into consideration in reaching their decision.

Scottish Ministers consider that there is sufficient information to allow Ministers to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect, which the proposals would have on the natural beauty of the countryside, or any such flora, fauna, features, sites, buildings or objects.

Scottish Ministers are satisfied that the Company has avoided so far as possible, causing injury to fisheries or to stock of fish in any waters.

Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations and EIA Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the proposed Development.

Conservation of Habitats and Species Regulations

The Conservation of Habitats and Species Regulations 2017 (“the Habitats Regulations”) require Scottish Ministers to consider whether the proposed Development would be likely to have a significant effect on a European site, as defined in the Habitats Regulations, and if the development is directly connected with or necessary to the management of the European site. The proposed Development lies approximately 2.3km north east of the Muirkirk and North Lowther Uplands Special Protection Area (SPA). Consequently, Scottish Ministers are required to consider the effect of the proposed Development on the SPA by carrying out a Habitats Regulations Appraisal (HRA).

The HRA concluded that the proposal is likely to have a significant effect on the qualifying interests of the SPA and therefore Scottish Government has undertaken an appropriate assessment in view of the site’s conservation objectives for its qualifying interests.

Scottish Ministers appropriate assessment concluded, following advice from SNH, and in view of the conservation objectives of the SPA being met, the proposed Development alone and in combination with other projects or proposals that could have impacts on the SPA, will not have an adverse effect on SPA’s integrity. Therefore, no mitigation measures are required.

Public Local Inquiry (“PLI”)

In accordance with paragraph 2(2) of Schedule 8 of the Electricity Act 1989, where the relevant Planning Authority objects to an application and the objection is not withdrawn the Scottish Ministers shall cause a PLI to be held. South Lanarkshire Council did not object to the application. Ministers are satisfied there is sufficient information to be able to make an informed decision on the application and that it would not be appropriate to hold a PLI.

Consultation Responses

South Lanarkshire Council did not object to the application. The Planning Authority assessed the application against the Development Plan and the appropriate policies including matters in relation to landscape and visual effects. Their assessment reviewed SNH comments in relation to turbines 10, 11 and 14 dominating the horizon. The Planning Authority considered that these turbines should not be viewed in isolation but should be viewed in relation to the other 11 turbines proposed for this application as well as the existing and consented wind farm developments in the area. Therefore, the Planning Authority considered that whilst the turbines may seem dominating at 200m, they do not appear incongruous within a turbine landscape of this nature as they are within the centre of the turbine landscape rather than being outliers that cannot be read as part of a larger wind farm. The Planning Authority considered the reduction of these 3 turbines by 20m in an open landscape may have limited visual affect, it would bring uniformity to these turbines in line with the other proposed turbines that are located below the summit and ridgeline of the Rolling Moorland with Wind Farm Landscape Character Type. The Planning Authority recommend consideration should be given by the Scottish Government to the reduction in height of turbines 10, 11 and 14.

The effects of the proposed Development on the Douglas Valley Special Landscape Area (SLA) were also assessed by the Planning Authority and they considered that the integrity of the SLA’s character is not compromised by the proposed Development and the special natural of the Douglas Valley is maintained.

Subject to the imposition of conditions, the Planning Authority consider the proposed repowering of the existing wind farm with 14 turbines, although at a much taller scale and covering an additional area of ground, is acceptable. The Planning Authority state the proposed Development is not considered to have any significant, adverse impact within the surrounding area and is considered to accord with National Policy and the relevant provisions of the Development Plan. The Planning Authority also noted that Coalburn Community Council submitted a response direct to South Lanarkshire Council, which fully support this project.

Scottish Environmental Protection Agency (“SEPA”) did not object to the application subject to planning conditions for the submission of a Construction Environmental Management Plan and a detailed Drainage Strategy. SEPA considered the Flood Risk Assessment and have no objections on flood risk grounds though advice relating to flood risk is provided.

SEPA consider that the impacts of the water environment have been satisfied at this application stage and reference is made to the appropriate licences required for the development stage. SEPA also refer to best practice methods on the storage and reuse of peat.

Scottish Natural Heritage (“SNH”) advised on matters relating to ecology, landscape and protected species. SNH did not object to the application but highlighted the potential range of mitigation measures which will require to be incorporated into a species protection plan should pre-construction surveys confirm the presence of bat roosts. They also recommend that turbines should be located so that no part of their structure or blades falls within 50 metres of features of value for bat activity. Otherwise, if this 50-metre buffer is not achieved then they recommend blade feathering at turbines less than 50 metres to reduce the potential for bat casualties. With regards to landscape and visual impacts SNH consider that the scale of the turbines are out of scale with the landscape and result in a number of adverse effects. SNH recommend that thought should be given to modification of the proposals by relocating or removing turbines 10, 11 and 14, reducing the height of the remaining turbines to between 150m and 180m and therefore reducing the cumulative effects on the Douglas Valley Special Landscape Area. SNH also considered the impacts of aviation lighting requirements and recognised that only 7 of the 14 turbines would require visible aviation lighting.

Historic Environmental Scotland (“HES”) concluded that the proposal does not raise issues of national significance for heritage assets within the remit of HES and therefore do not object to the application.

East Ayrshire Council is a neighbouring planning authority and expressed concerns about the overall scale of the proposed turbines and the appropriateness of this height of turbine within the landscape. They suggested that consideration be given to reducing the height of the overall scheme to a scale more appropriate to the landscape.

Marine Scotland Science does not object to the proposed Development and recommend proposed water quality and fish monitoring programme. It recommends the Company establish a robust integrated water quality and fish monitoring programme to ensure the water quality does not deteriorate throughout the development, as required by the Water Framework Directive, and to protect fish populations of high national conservation importance. Scottish Ministers have attached conditions within Annex 2, which gives effect to Marine Scotland Science’s recommendation.

Transport Scotland has no objection based on the information submitted and request conditions are attached in relation to proposed works to M74 Junction 11, minimising interference with the safety and free flow of traffic on the trunk road, wheel washing facilities and the abnormal load route. Scottish Ministers have attached conditions within Annex 2, which gives effect to Transport Scotland’s recommendation.

Scottish Forestry are generally supportive of the proposed development though they noted that a small amount of tree removal would occur. Scottish Forestry engaged with the applicant and the Planning Authority, and a proposal for compensatory planting has been agreed.

Given the limited scale of tree removal and agreed compensatory planting proposal this matter can be addressed out with the requirement for a condition.

Glasgow Prestwick Airport have no objection and are satisfied that the proposed Development will have no material impact on the provision of air traffic service.

NATS (En-Route) plc has objected to the proposed development, as its assessment is that the development will cause an adverse impact to the Lowther Hill and Cumbernauld radars and associated air traffic operations of NATS (En-Route) plc ("NERL") without suitable mitigation. An agreement has been entered into between NERL and Hagshaw Hill Repowering Limited dated 31 January 2020 for the agreement of suitable planning conditions and the implementation of an identified and defined mitigation solution in relation to the development that will be implemented under agreement. In summary, such mitigation solution will require works to be carried out to NERL's infrastructure and comprises a modification to the radar system. NERL is therefore prepared to withdraw its objection to the application subject to the imposition of agreed conditions.

Glasgow Airport Limited (GAL) has objected to the proposed development, as its assessment is that the development will cause an adverse impact to airport's Primary Surveillance Radar and Associated air traffic operations without suitable mitigation. An agreement has been entered into between GAL and the Developer dated 19 August 2019 for the agreement of suitable planning conditions and the implementation of identified and defined mitigation solution in relation to the development that will be implemented under agreement. GAL continue to maintain their aerodrome safeguarding objection to the proposal unless the agreed conditions are applied to any planning permission.

Civil Aviation Authority (CAA) current requirements for lighting onshore wind turbines as specified in the Air Navigation Order (2016) Article 222, which requires that all obstacles over 150m above ground level are fitted with medium intensity steady red lights positioned as close as possible to the top of the obstacle. CAA indicated that they are content with the draft proposed lighting plan for this development and highlighted that they require the final lighting plan to be approved prior to construction.

Douglas Community Council did not respond to the consultation.

The following consultees provided no objection subject to comments/no comment and/or conditions which are set out in Annex 2: **BT, Defence Infrastructure Organisation; Scottish Water; Scotways; and The Coal Authority.**

The following consultees did not respond to the consultation: **Fisheries Management Scotland, Joint Radio Company, and RSPB.**

Representations

The Scottish Ministers received no public representations, either in support of, or objecting to the application.

Scottish Government Policy Context

Climate Change (Scotland) Act 2009

The Climate Change (Scotland) Act 2009, passed by the Scottish Parliament in 2009, sets out the targets for reducing greenhouse gas emissions as an interim 42% reduction target for 2020 and an 80% reduction target for 2050. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 (2019 Act) received Royal Assent on 31 October 2019 and sets a target for Scotland to be carbon-neutral, meaning net-zero CO₂, by 2045 at the latest. Additionally the 2019 Act sets out two interim targets to reduce emissions by 75% by 2030 and by 90% by 2040.

Scottish Energy Strategy and Onshore Wind Policy Statement

Scottish Energy Strategy (SES) and Onshore Wind Policy Statement (OWPS) were published in December 2017. SES sets out a vision for the future energy system in Scotland through to 2050 and sets out the priorities for an integrated system-wide approach that considers the use and supply of energy for heat, power and transport. The strategy provides a long-term vision to guide energy policy decisions to tackle the challenges of decarbonising heat and transport in order to meet Scotland's long-term energy and climate change targets. The OWPS reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development and capacity in locations across Scotland where it can be accommodated in appropriate locations.

National Planning Framework 3

National Planning Framework 3 (NPF3) June 2014 sets out the long term vision for the development of Scotland and is the spatial expression of the Scottish Government's Economic Strategy, that has a focus on supporting sustainable economic growth which respects the quality of the environment, place and life in Scotland and the transition to a low carbon economy. The framework sets out strategic outcomes aimed at supporting the vision – a successful, sustainable place, a low carbon place, a natural, resilient place and a connected place.

Scottish Planning Policy

The Scottish Government supports wind energy development in appropriate locations. Scottish Planning Policy (SPP) 2014 aligns itself with NPF3 and one of its policy principles states that there will be a presumption in favour of development that contributes to sustainable development.

SPP sets out that policies and decisions should be guided by certain principles giving due weight to net economic benefit; the contribution to renewable energy targets; supporting delivery of infrastructure, including energy, and; protecting natural heritage, including landscape and the wider environment. SPP also states that the planning system should support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity.

The majority of the proposed Development is located within an already established area for wind farm development. Scottish Ministers acknowledge that the proposed Development would result in some significant landscape and visual impacts, which are considered acceptable in the context of the benefits that the proposed Development will bring in terms of net economic benefit, contributing to renewable energy and climate change targets, while protecting the historical and natural environment. On balance, it is considered that the proposed Development contributes to sustainable development.

Development Plan Status

The Development Plan covering the application site comprises Glasgow and Clyde Valley Strategic Development Plan 2017 (GCVSDP) Onshore Wind Spatial framework (paragraphs 7.8 and 7.9). The Onshore Wind Spatial Framework is aligned to increasing energy efficiency and reducing carbon emissions. Policy 10 Onshore Energy requires proposals to accord with local development plans.

South Lanarkshire Local Development Plan (SLLDP) was adopted on 29 June 2015 and contains the policies against which the Planning Authority assessed the proposal. Approved Supplementary Guidance documents 1, 2, 3, 9 and 10, support the policies in the SLLDP and were assessed by the Planning Authority.

On 29 May 2018, South Lanarkshire Planning Committee approved the Proposed South Lanarkshire Local Development Plan 2 (SLLDP2) and Supporting Planning Guidance on Renewable Energy, which is a material consideration in the determination of this application. The relevant policies were assessed by the Planning Authority, who concluded that provided the proposed Development is carried out in accordance with the terms of the application and the accompanying EIA report, including all mitigation and monitoring measures stated in it, and subject to proposed conditions being included, then it is not considered to have any significant, adverse impact within the surrounding area and is considered to accord with national policy and the relevant provisions of the Development Plan.

The Scottish Ministers Considerations

Main Determining Issues

Having considered the Application, the EIA report, responses from consultees and Scottish Government policies, Ministers consider that the main determining issues are:

- the environmental impacts of the proposed Development, in particular the landscape and visual impacts;

- the estimated economic and renewable energy benefits which the proposed Development is likely to bring: and
- the extent to which the proposed Development accords with and is supported by Scottish Government policies.

Assessment of the Determining Issues

Landscape and Visual Impacts

In consideration of the proposed Development, Scottish Ministers have considered the comments made by consultees South Lanarkshire Council, SNH and East Ayrshire Council's recommending that thought should be given to modification or redesign of the proposals by removing or reducing the height of the turbines, in particular turbines 10, 11 and 14, therefore reducing the cumulative effects on the Douglas Valley Special Landscape Area (SLA).

The Landscape and Visual Impact Assessment (LVIA) is presented within the EIA report. It identifies any likely significant landscape and visual effects arising as a result of the proposed Development. The LVIA findings conclude that the proposed Development would result in some significant landscape and visual effects, which is inevitable given the nature of this proposed Development. Taking into account consultation responses, Scottish Ministers therefore considered the concerns raised.

Scottish Ministers have undertaken a site visit and reviewed the LVIA together with the consultation responses. In relation to SNH consultation response, the Company responded clarifying the benefits of the proposed Development in comparison with 200m height turbines against 180m height turbines and this has also been taken in to account in the determination.

Scottish Ministers consider the landscape context of this proposed Development. Following the construction of the existing Hagshaw Hill Wind Farm in 1995, there have been other wind farm developments constructed in the area and further wind farm developments have received consent and are expected to be constructed in the near future. The cluster of wind farm developments which the proposed Development is located within includes: Hagshaw Hill; (operational); Hagshaw Hill Extension (operational); Galawhistle (operational); Cumberhead (consented); Nutberry (operational); Dalquhandy (consented); Douglas West (consented); and Douglas West Ext (application). The majority of the proposed Development (11 of the 14 turbines) are located within Rolling Moorland with Wind Farm Landscape Character Type (LCT). The other 3 turbines are located within the northern fringe of the Rolling Moorland LCT and due to the rising topography of the landscape; they have a backdrop onto the Rolling Moorland with Wind Farm LCT.

With regard to SNH comments on adverse landscape and visual effects, Scottish Ministers have considered the LVIA, in particular viewpoints 1; 2; 4; 5; and 9, where the different scenarios in height reduction can be demonstrated. Scottish Ministers consider there would be little difference in terms of landscape and visual effects between 180m and 200m turbine heights and it is recognised that adjacent turbines in this cluster are lower in height, and the complete consistency of turbine heights within this cluster is difficult to achieve due to evolving technology.

It is also noted the Dalquhandy Wind Farm proposal, located in the cluster, secured planning permission from South Lanarkshire Council to increase 11 of their 15 turbines from 131m to 149.9m.

Scottish Ministers therefore, on balance, consider that reducing the height of all of the turbines, or removing wind turbines 10; 11; and 14 would not achieve any noticeable reduction in visual impact and that these turbines are absorbed by the wider cluster of wind farms. Scottish Ministers note that excluding those turbines which are situated on the higher ground where wind resource is greatest would reduce the renewable energy output of the proposed Development and that any benefits gained by a reduction in the numbers or size of any of the wind turbines will not, on balance, justify the reduction in the capacity of renewable energy.

SNH also provided comments on the cumulative landscape effects on the Douglas Valley Special Landscape Area (SLA). Taking into account the site visit, LVIA and the consultation response from the Planning Authority, Scottish Ministers concur with the Planning Authority that the integrity of the SLA's character is not compromised by the proposed Development and the special nature of the valley is maintained.

Due to the height of the proposed turbines, visible aviation lighting may be required and it is recognised that there is likely to be visual effects as a result. The assessment of visible turbine lighting is set out in the LVIA, which identifies that the visible lighting would be screened by landform and topography from much of the surrounding area and in generally in areas where night-time lighting is a familiar element of the landscape. It is recognised that there would be potential for significant effects on the character of the landscape and for some receptors in the immediate vicinity of the proposed Development during low light levels.

Scottish Ministers have taken into account that the Civil Aviation Authority's (CAA) review of the proposed aviation obstruction lighting plan and are satisfied that the plan is in accordance with the proposed CAA policy direction, which aims to reduce the visual impact of obstruction lighting on UK onshore wind turbine developments. In order to ensure that the aviation lighting plan complies with current policies, an aviation lighting condition has been secured to this consent as set out in Annex 2.

Scottish Ministers acknowledge that the proposed Development would result in some significant landscape and visual impacts and that it is located within an established area for wind farm development. Given the Scottish Government policy context, the economics benefits and contribution to renewable energy targets that the proposed Development would bring, on balance the Scottish Ministers consider that the proposed 200m turbines in this wind farm landscape are acceptable, and there in this case there is no justifiable basis for seeking a reduction in turbine height or removal of turbines 10, 11 and 14.

Economic Benefits

The transition to a low carbon economy is an opportunity for Scotland to take advantage of our natural resources to grow low carbon industries and create jobs.

The Company sets out in the EIA report that the proposed Development will result in a substantial investment in South Lanarkshire and Scotland, and is expected to generate economic impacts during the development and construction phase.

The proposed Development would generate up to £17.1 million and 152 job years of employment in South Lanarkshire and £46.1 million and 423 job years in Scotland (including South Lanarkshire). During each year of operation of the proposed Development, it is estimated it would generate that £0.7m million and 6 jobs in South Lanarkshire and £1.1 million and 9 jobs in Scotland (including South Lanarkshire).

Whilst the overall net economic benefits are estimations of the effects of the proposed Development, Ministers are satisfied the proposed Development has the potential for significant positive net economic benefits both for the local community, South Lanarkshire and Scotland.

Scottish Government policy, renewable energy targets and carbon payback

SPP advises that proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms where these are relevant. SPP identifies a number of considerations to be taken into account when determining energy infrastructure developments (set out at SPP paragraph 169) including but not limited to, landscape and visual, cumulative impact, net economic impact, and contribution to the renewable energy generation targets.

The Planning Authority set out in their response that the proposed Development falls within Group 2 and Group 3 areas of the spatial framework for South Lanarkshire Council, and following an assessment they consider that subject to conditions and mitigation measures being implemented, the proposed Development complies with the spatial framework and the considerations as set out in SPP.

The renewable energy produced and the contribution the proposed Development can make to targets and carbon payback requires to be taken into account in the decision.

The proposed Development makes a significant contribution towards meeting greenhouse gas emission and renewable electricity targets with a generating capacity of approximately 84 MW from the wind farm, and 20 MW from the energy storage facility, which is estimated to provide up to 20MWh of storage capacity per year.

Based on a calculated site-specific capacity factor presented in the EIA report, the annual indicative total power output for the proposed Development would be around 237.7 GW hours per year, indicating the proposed Development would generate enough electricity to power over 60,940 average UK households.

The deployment of this amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target for the equivalent of 100% of all renewable energy to come from Renewables by 2030.

The potential savings in CO₂ emissions due to the proposed Development replacing other electricity sources over the 30 years lifetime of the proposed Development are presented in the EIA report. This is presented as being approximately 98,061 tonnes of CO₂ per year, which means that a total saving of over 2.94 million tonnes of CO₂ will be made through displacement of carbon emitting generation.

The proposed Development is sited in an area with an already established use as a wind farm. The reuse of some of the existing infrastructure and the opportunity to explore the technological capabilities of future technologies in the repowering and extension of the existing wind farm, and seeking 30 years operational lifespan of this proposed Development are all in accordance with policy objectives in respect of the provision of renewable energy.

Scottish Ministers are satisfied that the proposed Development would provide a contribution to renewable energy targets and carbon savings, and that these would be of an order that weighs in favour of the proposed Development. The Scottish Ministers are satisfied that the proposed Development will contribute to the Scottish Government's strategic priorities.

Scottish Ministers in making their determination on the Application have had to balance these considerations, decide what weight is to be given to each and reach a view as to where the balance of benefit lies. Ministers consider the landscape and visual impacts are acceptable when weighed against the benefits of the increased low carbon electricity generation of the repowered and extension of Hagshaw Wind Farm will produce.

Conclusions

Reasoned Conclusions on the Environment

The Scottish Ministers are satisfied that the Environmental Impact Assessment Report has been produced in accordance with the EIA Regulations and that the procedures regarding publicity and consultation laid down in the those Regulations have been followed.

In accordance with paragraph 3 of Schedule 9 to the Electricity Act, the Scottish Ministers have had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. The Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

The Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

The Scottish Ministers have considered fully and carefully the Application, including the Environmental Impact Assessment Report, consultation responses and all other material information and, are satisfied that the environmental impacts of the proposed Development have been assessed and have taken the environmental information into account when reaching their decision.

Scottish Ministers are satisfied having regard to current knowledge and methods of assessment, that this reasoned conclusion addresses the likely significant effects of the development on the environment. Ministers are satisfied that this reasoned conclusion is up to date.

Duration of planning permission

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission will lapse if development has not begun within a period of 3 years. Section 58(2) of that Act enables Ministers to direct that a longer period is allowed before planning permission will lapse.

Scottish Government policy is that due to the constraints, scale and complexity of constructing such developments, a 5-year time scale for the commencement of development is appropriate in this case. A direction by Scottish Ministers under section 58(2) of the Town and Country Planning (Scotland) Act 1997 has therefore been made as part of the determination for this consent.

The Scottish Ministers' Determination

Subject to the conditions set out in **Annex 2 Part 1**, the Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for the construction and operation of the Hagshaw Hill repowered and extended wind farm and energy storage facility, in the South Lanarkshire Council area (as described in the application and at **Annex 1**).

Subject to the conditions set out in **Annex 2 Part 2**, the Scottish Ministers direct that **planning permission be deemed to be granted** under section 57(2) of the Town and Country Planning (Scotland) Act 1997 in respect of the Development described in the application and at **Annex 1**.

Section 36 consent and expiry of Planning Permission

The consent hereby granted will last for a period of 30 years from the earlier of:

- i) The date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or
- ii) The date falling 24 months after electricity is generated from the first of the wind turbines hereby permitted.

Scottish Ministers direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission because of the complexities of constructing a generating station of this scale, and that planning permission is to lapse on the expiry of a period of 5 years from the date of this direction, unless the development to which the permission relates is begun before the expiry of that period.

In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the Company must publicise notice of this determination and how a copy of this decision letter may be inspected on the application website, in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

Copies of this letter have been sent to the public bodies consulted on the application including the Planning Authority, SNH, SEPA and Historic Environment Scotland. This letter has also been published on the Scottish Government Energy Consents website at <http://www.energyconsents.scot>

Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent. The rules relating to the judicial review process can be found on the website of the Scottish Courts:

<https://www.scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=12>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours faithfully

Redacted


A member of the staff of the Scottish Ministers

ANNEX 1

Description of the Development

The Development comprises an electricity generating station known as Hagshaw Hill Wind Farm Repowered including 14 turbines and energy storage facility with a generating capacity greater than 50MW, located approximately 3.2km west of Douglas in South Lanarkshire. The site is partly formed by the existing Hagshaw Hill Wind Farm, which currently comprises 26 existing turbines. The site also incorporates land to the south of the existing wind farm, all as described in the Application and Environmental Impact Assessment (EIA) Report submitted on 12 December 2018.

The components of the generating station and ancillary development comprise:

- 14 turbines to a maximum tip height of 200m;
- Energy Storage Facility (contained within compound approximately 100m x 60m);
- Turbine foundations;
- Crane hardstandings;
- Access tracks;
- Watercourse crossings;
- Drainage;
- Underground cabling;
- Substation and control room;
- Energy storage facility;
- Two permanent meteorological monitoring masts;
- Two construction compounds (one permanent and one temporary);
- Concrete batching plant;
- Temporary turbine laydown area;
- Borrow pits; and
- Removal of existing 26 turbines and appropriate restoration.

ANNEX 2

Part 1 - Conditions Attached to Section 36 Consent

1. Notification of Date of First and Final Commissioning

Written confirmation of both the Date of First Commissioning and the Date of Final Commissioning shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after those dates.

***Reason:** To allow the Planning Authority and Scottish Ministers to calculate the date of expiry of the consent.*

2. Commencement of Development

(i) The Development shall be commenced no later than five years from the date of this consent, or such other period as the Scottish Ministers may direct in writing.

(ii) Written confirmation of the intended date of Commencement of Development shall be provided to the Scottish Ministers and the Planning Authority no later than one calendar month before that date.

***Reason:** To ensure that the consent is implemented within a reasonable period and to allow the Planning Authority and Scottish Ministers to monitor compliance with obligations attached to this consent and deemed planning permission as appropriate.*

3. Non-assignment

This consent shall not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment, with or without conditions.

The Company shall notify the Scottish Ministers and Planning Authority in writing of the name of the assignee, principal named contact and contact details within fourteen days of the consent being assigned.

***Reason:** To safeguard the obligations of the consent if transferred to another company.*

4. Serious Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent written notification of the nature and timing of the incident shall be submitted to the Scottish Ministers within twenty-four hours of the incident occurring, including confirmation of remedial measures taken and/or to be taken to rectify the breach.

***Reason:** To keep the Scottish Ministers informed of any such incidents which may be in the public interest.*

5. Aviation Radar

Glasgow Airport

(1) Prior to the commencement of development, a Primary Radar Mitigation Scheme setting out measures to be taken to prevent the impairment of the performance of aerodrome navigation aid and the efficiency of air traffic control services at Glasgow Airport must be submitted to, and approved in writing by, the Scottish Ministers, in consultation with the Planning Authority and Glasgow Airport Limited

(2) No wind turbine forming part of the Development shall be erected other than in accordance with the approved Primary Radar Mitigation Scheme.

(3) The development must be constructed, commissioned and operated at all times fully in accordance with the approved Primary Radar Mitigation Scheme.

NATS (En-Route) plc ("NERL")

(4) No part of any turbine shall be erected above ground until a Primary Radar Mitigation Scheme agreed with the Operator has been submitted to and approved in writing by the Scottish Ministers in order to avoid the impact of the development on the Primary Radars of the Operator located at Lowther Hill and Cumbernauld and associated air traffic management operations.

(5) No part of any turbine shall be erected above ground until the approved Primary Radar Mitigation Scheme has been implemented and the development shall thereafter be operated fully in accordance with such approved Scheme.

For the purpose of condition 5 above:

"Operator" means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants PO 15 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act).

"Primary Radar Mitigation Scheme" or **"Scheme"** means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the development on the Lowther Hill and Cumbernauld primary radars and air traffic management operations of the Operator.

Reason: *In the interests of aviation safety.*

6. Peat Landslide Hazard Risk Assessment

(i) No Development shall commence unless and until supplementary information is provided to the Peat Landslide Hazard Risk Assessment and submitted to and approved in writing by the Scottish Ministers.

(ii) The PLHRA shall:

- provide details of further peat probing to ensure assessment of all areas of potential significant risk of peat landslide and hazard,
- comply with the guidance contained in “Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments” published by the Scottish Government in 2017, or such replacement standard as may be in place at the time of submission of the peat landslide hazard and risk assessment,
- Include details of any mitigation measures to be put in place.

(iii) The approved PLHRA shall thereafter be implemented in full.

Reason: *To minimise the risk of peat failure arising from the Development.*

7. Storage Technology

(i) No development shall commence unless and until details of the storage technology to be implemented have been submitted to and approved in writing by the Scottish Ministers.

(ii) Thereafter, once installed, the approved storage technology shall be implemented and maintained in accordance with the approved details, unless agreed in writing with the Scottish Ministers.

(iii) Written confirmation of when the Energy Storage Facility is installed and commissioned shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after those dates.

(iv) There shall be no further installation of any storage technology, unless and until details of the storage technology to be installed have been submitted to and approved in writing by the Scottish Ministers.

Reason: *In the interests of protecting the environment.*

Annex 2

Part 2 - Conditions Attached to Deemed Planning Permission

1. Implementation in accordance with approved plans and requirements of the section 36 consent

Except as otherwise required by the terms of the section 36 consent and deemed planning permission, the Development shall be undertaken in accordance with the application and the accompanying Environmental Impact Assessment (EIA) Report including all Appendices, date December 2018, including all mitigation and monitoring measures stated in it, and other documentation lodged in support of the application.

Reason: to ensure that the Development is carried out in accordance with the approved details.

2. Design and operation of wind turbines

(i) No Development shall commence unless and until full details of the proposed wind turbines (including, but not limited to, the power rating and sound power levels, the size, type, external finish and colour), any anemometry masts and all associated apparatus have been submitted to and approved in writing by the Planning Authority.

(ii) The wind turbines shall be constructed and operated in accordance with the approved details and maintained in the approved colour, free from external rust staining or discolouration, until the wind farm is decommissioned.

(iii) All wind turbine blades shall rotate in the same direction.

Reason: To ensure that the environmental impacts of the turbines forming part of the Development conform to the impacts assessed in the environmental statement and in the interests of the visual amenity of the area.

3. Signage

No wind turbine, anemometer, power performance mast, switching station, transformer building or enclosure, ancillary building or above ground fixed plant shall display any name, logo, sign or advertisement (other than health and safety signage) unless and until otherwise approved in writing by the Planning Authority.

Reason: in the interests of the visual amenity of the area.

4. Design of Energy Storage Facility

No construction of the Energy Storage Facility shall commence unless and until details of the external finishes of the Energy Storage Facility have been submitted to and approved in writing by the Planning Authority. The approved details shall be implemented unless otherwise agreed by the Planning Authority.

5. Design of sub-station and ancillary development

Prior to the commencement of works in respect of each or any of;

- control building;
- substation;
- associated compounds;
- any construction compound boundary fencing;
- external lighting; and
- parking areas.

Final details of the external appearance, dimensions, and surface materials of the relevant element shall be submitted to and approved in writing by the Planning Authority.

The substation building, associated compounds, fencing, external lighting and parking areas approved shall be constructed in accordance with the approved details.

Reason: *To ensure that the environmental impacts of the sub-station and ancillary development forming part of the Development conform to the impacts assessed in the EIA Report and in the interests of the visual amenity of the area.*

6. Micro-siting

Each turbine, buildings, compounds, areas of hardstanding, tracks and watercourse crossings shall be erected in the position indicated upon Figure 1.2A (site layout Plan - West) within the Environmental Impact Assessment Report, dated December 2018. A variation of the indicated position of any turbine or other development infrastructure detailed on the approved drawing shall be notified on the following basis:

(a) If the micro-sited position is less than 50 metres it shall only be permitted following the approval of the Ecological Clerk of Works (ECoW) in consultation with SEPA and West of Scotland Archaeology Service

(b) If the micro-sited position is of between 50 metres and 100 metres it shall only be permitted following written approval of the Planning Authority in consultation with SEPA and West of Scotland Archaeology Service. The said provisions relating to micro-sited position shall not have the effect such that any micro-sited position will:

- bring a turbine any closer to an uninvolved property than is already approved
- bring a turbine out with the planning application boundary
- breach the 50m water buffer zones
- take place within areas of peat of greater depth than the original location.

Reason: *to control environmental impacts while taking account of local ground conditions.*

7. As Built Plan

Within 3 months of commissioning the approved wind farm the applicant shall submit to the Planning Authority an "as built plan" at an appropriate scale indicating the location of any track, turbine, energy storage facility, crane pad and restored borrow pit within the development.

Reason: In order to retain effective planning control

8. Borrow Pits – Scheme of Works

No Development shall commence unless and until a scheme for the working and restoration of each borrow pit has been submitted to, and approved in writing by, the Planning Authority. The scheme shall include:

- (a) a detailed working method statement based on site survey information and ground investigations;
- (b) details of the handling of any overburden (including peat, soil and rock);
- (c) drainage measures, including measures to prevent surrounding areas of peatland, water dependant sensitive habitats and Ground Water Dependent Terrestrial Ecosystems (GWDTE) from drying out;
- (d) a programme of implementation of the works described in the scheme; and
- (e) details of the reinstatement, restoration and aftercare of the borrow pit(s) to be undertaken at the end of the construction period, including topographic surveys of pre-construction profiles and details of topographical surveys to be undertaken of the restored borrow pit profiles.

The approved scheme shall be implemented in full.

Reason: To ensure that excavation of materials from the borrow pit(s) is carried out in a manner that minimises the impact on road safety, amenity and the environment, and to secure the restoration of borrow pit(s) at the end of the construction period.

9. Borrow Pits – Blasting

No blasting shall take place until a blasting method statement has been submitted to and approved in writing by the Planning Authority.

The method statement shall include details of measures required to minimise the impact of blasting on residential and other noise-sensitive properties in the vicinity of the site. It shall also include the following measures:

- Blasting shall be carried out using the best practicable means of ensuring that the resultant noise, vibration and air overpressure are minimised;

- Blasting techniques and instantaneous charge levels shall be employed such that the predicted peak particle velocity shall not exceed 6 mm/s in any plane in 95% of all blasts, and no individual blast shall exceed a peak particle velocity of 12 mm/s as would be measured on the ground adjacent to any vibration-sensitive building;

- Under normal atmospheric conditions, the peak linear overpressure level shall not exceed 120dB as measured from any neighbouring noise sensitive premises;

- Within the constraints of safe practice, blasting shall be avoided under weather conditions which are likely to direct or focus the blast air overpressure towards neighbouring noise sensitive properties; and

- Blasting shall thereafter be carried out in accordance with the approved method statement, unless otherwise agreed in writing with the Planning Authority.

No blasting shall take place except between the following times:-
10.00 - 12.00 and 14.00 - 16.00-Mondays to Fridays and;
10.00- 12.00 Saturdays.

Reason: *To ensure that blasting activity is carried out within defined timescales to control impact on amenity.*

10. Planning Monitoring Officer

No development shall commence unless and until the terms of appointment by the Company of an independent and suitably qualified environmental consultant as Planning Monitoring Officer ("PMO") have been submitted to, and approved in writing by, the Planning Authority. The terms of appointment shall:

- (a) impose a duty to monitor compliance with the terms of the deemed planning permission and the conditions attached to it;
- (b) require to set out the frequency of PMO visits to site;
- (c) require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
- (d) require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to it at the earliest practical opportunity.

The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

Reason: *To enable the development to be suitably monitored to ensure compliance with the planning permission and the conditions attached to it.*

11. Ecological Clerk of Works

No Development shall commence unless and until the terms of appointment of an independent Ecological Clerk of Works (“ECoW”) by the Company have been submitted to, and approved in writing by the Planning Authority (in consultation with SNH and SEPA). The terms of appointment shall:

- (a) impose a duty to monitor compliance with the ecological and hydrological commitments and mitigations measures provided in the EIA Report and other information lodged in support of the application, the Construction and Environmental Management Plan approved under condition 13, the Habitat Management Plan approved under condition 18, any species or habitat management plans identified in the Environmental Statement and other plans approved under condition 11 (“the ECoW works”);
- (b) require the ECoW to report to the nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
- (c) require the ECoW to submit a monthly report to the Planning Authority summarising works undertaken on site;
- (d) require the ECoW to report to the Planning Authority any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
- (e) Advise the Company on adequate protection of nature conservation interests on the site; and
- (f) Direct the micro siting and placement of the turbines and infrastructure.

The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

Reason: To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development during the construction and restoration phases.

12. Ecological Clerk of Works Decommissioning Phase

No later than eighteen months prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier), details of the terms of appointment of an ECoW by the Company throughout the decommissioning, restoration and aftercare phases of the Development shall be submitted for the written approval of the Planning Authority in consultation with SNH and SEPA.

The ECoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the Development.

Reason: To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development during the decommissioning, restoration and aftercare phases.

13. Construction and Environmental Management Plan

No development work shall commence until a Construction Environmental Management Plan (CEMP) including Peat Management Plan and Ground Water and Surface Water Monitoring Plan has been submitted to and approved by the Planning Authority in consultation with SEPA and SNH. The CEMP shall be submitted a minimum of two months prior to works commencing on site and shall incorporate "good practice" methods from the Scottish UK wind farm industry to ensure that environmental impacts are reduced and incorporate all the mitigation measures identified in the EIA Report and Appendices dated December 2018.

Thereafter, all the measures described in the approved CEMP shall be implemented within the timescales set out. The method statement shall include the following:

- a) A plan of the construction operations at an appropriate scale, showing the location of any contractor's site compound and laydown areas required temporarily in connection with the construction of the development;
- (b) A site waste management plan (dealing with all aspects of waste produced from the decommissioning, restoration and aftercare phases of the 26 turbines);
- c) Track design approach - Method of defining track route and location (track corridors should be pegged out 500 - 1000m in advance of operations);
- d) Drainage Strategy;
- e) Maps of tracks indicating double and single tracks and position of passing places;
- f) The full extent of anticipated track 'footprint(s)' including extent of supporting 'geogrid' below roadstone and cabling at the edges of the track;
- g) Track construction: Floating track construction over peat >1m deep and gradients of 1:10 or less. Track construction for peat <1m deep, or on gradients of >1:10, cross slopes or other ground unsuitable for floating roads;
- h) Procedures to be followed when, during track construction, it becomes apparent that the chosen route is more unstable or sensitive than was previously concluded, including ceasing work until a solution is identified, informed with reference to advice from ECoW;
- i) Details of peat/soil stripping, storage and re-use. All soils stored on site shall be in accordance with BS3882 and SNH and SEPA guidance;
- j) A management plan for minimising the emission of dust from the construction and operation of the development;

k) Specifying the means by which material to be used for the development is brought on site unless it has certification from a suitably UKAS accredited laboratory to confirm that the material is not contaminated;

l) Compliance with the Council's Sustainable Drainage Systems (SuDs) design criteria guidance and inclusive sign off by the relevant parties carrying out the elements of work associated with the design criteria appendices 1 to 4;

m) A coloured plan showing the sustainable drainage apparatus serving the application site together with the contact name and emergency telephone number of the party responsible for its future maintenance. Details of the future maintenance regime in accordance with the latest Construction Design and Management (CDM) Regulations is to be provided on this drawing;

n) Peat Management Plan (PMP) - a PMP shall be submitted to and approved by the Planning Authority in consultation with SEPA and SNH and thereafter all work will be carried out in accordance with the plan within the required timescales;

o) A description of and measures to mitigate impact on surface water courses, hydrology, and private water supplies;

p) Watercourse crossings - should be kept to a minimum to ensure they do not adversely impact on natural flow pathways. These crossings shall be appropriately sized so that they can convey the 1 in 200 year flow (plus an appropriate allowance for climate change and freeboard), and overland flow routes shall be provided in the event of culvert blockage. This will minimise the risk of damage to existing and proposed access tracks. Watercourse crossings shall be designed in accordance with the principles of Scottish Planning Policy (SPP) and have a better or neutral effect on flood risk and a minimal afflux (backwater effect) and a clear span structure where possible;

q) Measures to be taken to ensure that the work does not cause mud, silt, or concrete to be washed away either during the construction stage or as a result of subsequent erosion. Where possible construction works shall avoid road construction during high periods of high rainfall;

r) Timing and extent of any necessary re-instatement;

s) Details of the site security gate, wheel wash facility and site entrance hard standing for the written approval of the Planning Authority. All work associated with construction of the access gate, access bell mouth (with associated abnormal load over run area) and wheel wash facility, vehicle parking on site for staff, visitors and deliveries to ensure that all vehicles can manoeuvre within the site and exit in forward gear shall be implemented on site prior to commencement of any internal site works. Details for wheel wash facility to maintain the public road network clear of any mineral/soils throughout the construction period;

t) Ground Water and Surface Water Monitoring Plan shall be submitted to and approved by the Planning Authority in consultation with SEPA. All works require to be carried out by component qualified professional. The methodology of such monitoring including locations frequency, gathering of information of baseline levels, etc. shall be submitted to the planning authority for approval prior to the commencement of works on site. Thereafter, the plan shall be implemented within the timescales set out to the satisfaction of the Planning Authority and the results of such monitoring shall be submitted to the planning authority on a 6 monthly basis, or on request;

u) A monitoring plan shall be submitted to the planning authority setting out the steps that shall be taken to monitor the environmental effects of the development, including the effects on noise and dust, during the construction phase and the operational phase. The methodology of such monitoring including locations frequency, gathering of information on background levels, etc. shall be submitted to the planning authority for approval prior to the commencement of works on site;

v) Water Quality and Fish Monitoring Plan (WQFMP) – All works require to be carried out by competent qualified professional. The WQFMP must take account of the Scottish Government's Marine Scotland Science's response and must include:

- (a) Pre-construction baseline water quality sampling and hydrochemical sampling. The methodology of such monitoring including locations frequency, gathering of information of baseline levels, etc. requires to be approved by the Planning Authority in consultation with Marine Scotland Science;
- (b) Fish monitoring programme to detect any changes in fish populations before, during and for at least 12 months after construction work associated with the Development;
- (c) Appropriate site specific mitigation measures and in agreement with the Planning Authority and Marine Scotland Science; and
- (d) Quantitative electrofishing surveys at control sites; and
- (e) Mitigation measures detailed in the Environmental Impact Assessment.

Thereafter, the WQFMP shall be implemented within the timescales set out to the satisfaction of the Planning Authority in consultation with Marine Scotland Science and the results of such monitoring shall be submitted to the Planning Authority on a 6 monthly basis, or on request; and

w) Pre-construction surveys for protected species including but not limited to breeding birds, otter, water vole and badger. Species protection plans for species identified within the site including a watching brief for the ECoW during construction.

The approved CEMP shall be implemented in full unless otherwise approved in advance in writing by the Planning Authority in consultation with SNH and SEPA, and the results of such monitoring shall be submitted to the Planning Authority on a six monthly basis, or on request.

Reason: To ensure that all construction operations are carried out in a manner that minimises their impact on road safety, amenity and the environment, and that the mitigation measures contained in the EIA Report accompanying the application, or as otherwise agreed, are fully implemented.

14. Construction Hours

All construction work associated with the development must be carried out in accordance with the current BS 5228, 'Noise control on construction and open sites' and all audible construction activities shall be limited to:

Monday to Friday 7:00am to 7:00pm,
Saturday 7:00am to 1:00pm;

With no audible activity taking place on Sunday, local and national bank holiday. Out with these periods, works at the site shall be limited to emergency works and dust suppression, unless otherwise approved in writing by the local planning authority. The local planning authority shall be informed in writing of emergency works within three working days of occurrence.

Subject to condition 8, any noise solely attributable to construction noise (where borrow pits are not operational) should not exceed 65dB(A) LAeq to include both stationary and mobile plant as described within Annex F- Code of practice for noise and vibration control on construction and open sites - Part 1: Noise (BS 5228-1:2009).

Reason: In the interests of local amenity.

15. Traffic Management Plan

No Development shall commence unless and until a detailed Traffic Management Plan (TMP) has been submitted for the written approval of the Council as Roads Authority in consultation with Transport Scotland, and thereafter the TMP shall be adhered to and implemented within the timescales set out. The TMP shall be produced in consultation with Roads & Transportation Services and Transport Scotland and include, but not be limited to, a safety audit for the Abnormal Loads Route, onsite parking, travel plan, wheel wash facilities and construction route signage. No works shall commence on site until such times as the TMP has been approved in writing by the Council as Roads Authority in consultation with Transport Scotland.

The approved TMP shall be implemented in full, unless and until otherwise agreed in advance in writing with the Planning Authority and in consultation with Transport Scotland.

Reason: In the interests of road safety.

16. Abnormal Load Route Assessment

At least 3 months prior to the delivery of abnormal loads the Company will undertake an Abnormal Load Route Assessment (ALRA) which shall include a test run and submit a report describing the outcome of the ALRA together with any recommendations for the written approval of the Council as Roads Authority and in consultation with Transport Scotland. The ALRA shall include details of a public relation strategy to inform the relevant communities of the programme of abnormal deliveries. The recommendations shall thereafter be implemented in accordance with a programme to be approved by the Planning Authority in consultation with Transport Scotland and shall be implemented prior to the delivery of the abnormal loads. Should the Abnormal Load route include any bridge crossings, prior to the commencement of the development clarification on the Bridge Assessments require to be submitted to and approved by the Council as Roads Authority, and recommendations shall thereafter be implemented in accordance with the approved programme.

Reason: *In the interests of road safety and to ensure that abnormal loads access the site in a safe manner.*

17. Access Management Plan

(i) No Development shall commence unless and until a detailed Access Management Plan (AMP) has been submitted for the written approval of the Planning Authority, and thereafter the AMP shall be adhered to and implemented within the timescales set out.

(ii) The AMP shall be produced in consultation with the Council's Countryside & Greenspace Services and a programme of community consultation shall be undertaken on a draft AMP. Proposals shall incorporate and identify the Council's Core Path and Wider Network and provide signage where the network identifies links. No works shall commence on site until such times as the AMP has been approved in writing by the Planning Authority.

(iii) The approved AMP shall be implemented in full, unless and until otherwise agreed in advance in writing with the Planning Authority.

Reason: *In the interests of amenity and in order to retain effective planning control.*

18. Habitat Management Plan

(i) No development shall commence unless and until a Habitat Management Plan (HMP) has been submitted to, and approved in writing by the Planning Authority.

(ii) The HMP shall set out proposed habitat management of the site during the period of construction, operation, decommissioning, restoration and aftercare, and shall provide for the maintenance, monitoring and reporting of habitat improvements and creation of new habitats to aid biodiversity on site.

(iii) The HMP shall include provision for regular monitoring and review to be undertaken to consider whether amendments are needed to better meet the habitat plan objectives. In particular, the approved HMP shall be updated to reflect ground condition surveys undertaken following construction and prior to the date of Final Commissioning and submitted for the written approval of the Planning Authority.

(iv) The HMP shall set out details of the implementation of a Habitat Management Group.

(v) Unless and until otherwise agreed in advance in writing with the Planning Authority, the approved HMP (as amended from time to time) shall be implemented in full and within the timescales set out in the approved HMP.

Reason: *In the interests of good land management and the protection of habitats.*

19. Habitat Management Group

A Habitat Management Group (HMG) shall be established prior to Final Commissioning to oversee the preparation and delivery of the HMP and to review and assess the results from ongoing monitoring. The HMG shall include a representative of South Lanarkshire Council and shall have powers to make reasonable changes to the HMP necessary to deliver its agreed aims, and notwithstanding the above:

- a) Site clearance activities and where possible, construction, will take place out with the bird breeding season (March to July inclusive). If site clearance activities commence during this period ECoW supervision is required;
- b) No ancient woodland to the south of the access track is to be removed;
- c) The HMP will operate for the full lifespan of the wind farm, including decommissioning
- d) The agreed proposals identified in the HMP will be fully implemented; and
- e) Surveillance and monitoring results of species and habitat will be carried out in accordance with the approved plan and be submitted to the HMG in accordance with the timescales set out.

Reason: *To safeguard environmental impacts, ecology, species and habitats and maintain effective planning control.*

20. Bat Protection

No Development shall commence until a bat post-construction monitoring plan has been submitted and approved in writing by the Planning Authority in consultation with SNH. Thereafter the recommended mitigation shall be implemented in accordance with the approved plan. The plan shall include details on acoustic monitoring with static automated detectors (full spectrum) for at least 1 complete bat active season (i.e. April to October), combined with at least 3 years of carcass searching after Final Commissioning.

If casualties are detected, more intensive carcass searches, using the method detailed in Appendix 4 of the “*Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation*” guidance.

There shall be wind turbine curtailment in the form of blade feathering while idling (as a minimum) at wind turbines 13, 14, 6 and 7.

No wind turbines shall be located where part of their structure or blades falls within 50m of features of value to bats, unless otherwise agreed in writing by the Planning Authority in consultation with SNH. Wind turbines 6, 13 and 14 should not be sited closer than 65.7m to the woodland edge and/or watercourses.

Reason: *In the interests of protecting and monitoring bats.*

21. Deer Management Statement

(i) No Development shall commence unless and until a deer management statement has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH.

(ii) The deer management statement shall set out proposed long term management of deer using the site and shall provide for the monitoring of deer numbers on site from the period from Commencement of Development until the date of completion of restoration.

(iii) The approved deer management statement (as amended from time to time subject to the approval of the Planning Authority in consultation with SNH) shall be implemented in full.

Reason: *In the interests of protecting and monitoring deer.*

22. Programme of Archaeological Works

(i) No Development shall commence unless and until the Company has secured the implementation of a programme of archaeological works in accordance with a written scheme of investigation which has been submitted by the applicant, agreed by West of Scotland Archaeology Service and approved by the Council, as Planning Authority.

(ii) Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Council as Planning Authority, in agreement with the West of Scotland Archaeology Service.

(iii) The approved programme of archaeological works shall be implemented in full.

Reason: *To ensure the protection or recording of archaeological features on the site.*

23. Shadow Flicker

No Development shall commence unless and until a scheme for the avoidance or mitigation of any shadow flicker at residential and commercial properties situated at a distance which is the same as ten rotor diameters of any wind turbine forming part of the Development, which lawfully exist or for which planning permission has been granted at the date of the section 36 consent, has been submitted to, and approved in writing by, the Planning Authority.

The approved mitigation scheme shall be implemented in full.

***Reason:** To offset impacts of shadow flicker on residential and commercial property amenity.*

24. Warning Devices

No fixed or mobile plant used within the site during the construction period shall incorporate bleeping type warning devices that are audible at any noise sensitive receptor. Details of alternative warning devices shall be submitted to and approved in writing by the Planning Authority prior to development starting on site. Efficient silencers shall be fitted to, used and maintained in accordance with manufacturers' instructions on all vehicles, plant and machinery used on the development site.

***Reason:** To minimise disturbance to residents in the vicinity of the wind farm.*

25. Private Water Supplies

(1) No Development shall commence unless and until a method statement and monitoring plan has been submitted to, and approved in writing by, the Planning Authority.

(2) This must detail all mitigation measures to be taken to secure the quality, quantity and continuity of water supplies to properties which are served by private water supplies at the date of the section 36 consent and which may be affected by the Development.

(3) The method statement shall include water quality sampling methods and shall specify abstraction points.

(4) Unless and until otherwise agreed in advance in writing with the Planning Authority, the approved method statement and monitoring plan shall be implemented in full.

(5) Monitoring results shall be submitted to the Planning Authority on a quarterly basis or on request during the approved programme of monitoring.

***Reason:** To maintain a secure and adequate quality water supply to all properties with private water supplies this may be affected by the Development.*

26. Redundant turbines

Unless otherwise agreed in writing by the Planning Authority, if one or more wind turbines fails to generate electricity for a continuous period of twelve months a scheme setting out how the relevant wind turbine(s) and associated infrastructure will be removed from the site and the ground restored shall be submitted for the written approval of the Planning Authority no later than one month after the date of expiry of the twelve month period.

The approved scheme shall be implemented within six months of the date of its approval, to the satisfaction of the Planning Authority.

Reason: *To ensure that any redundant wind turbine(s) are removed from Site, in the interests of safety, amenity and environmental protection.*

27. Aviation Safety

No Development shall commence unless and until the Planning Authority, Ministry of Defence, Defence Geographic Centre and NATS have been provided with the following information, and evidence has been provided to the Planning Authority that this has been done:

- a) the date of the expected commencement of each stage of construction;
- b) the height above ground level of the tallest structure forming part of the Development;
- c) the maximum extension height of any construction equipment; and the position of the wind turbines and masts in latitude and longitude.

Reason: *In the interests of aviation safety.*

28. Aviation Lighting

(i) No wind turbines shall be erected unless and until a scheme for aviation lighting for the Development has been submitted to, and approved by, the Planning Authority. The scheme shall include details of any aviation lighting required by Civil Aviation Authority and Ministry of Defence that is to be applied.

(ii) No lighting other than that described in the scheme shall be applied, other than that required for health and safety purposes, unless otherwise agreed in writing by the Planning Authority.

(iii) The required aviation lighting shall thereafter be maintained as approved for the lifetime of the Development.

(iv) The Development shall be operated in accordance with the approved scheme.

Reason: *In the interests of aviation safety and visual amenity.*

29. Decommissioning Method Statement for Hagshaw Hill Wind Farm

(i) No development shall commence until an outline Decommissioning Method Statement (DMS) for the dismantling of the existing 26 wind turbines and their associated infrastructure which form part of the Hagshaw Hill Wind Farm development and any associated ground restoration works is submitted for the written approval of the Planning Authority.

(ii) Thereafter the Decommissioning Method Statement shall be implemented in full unless otherwise agreed with the Planning Authority.

Reason: *To ensure that all decommissioning operations are carried out in a manner that minimises their impact on road safety, amenity and the environment, and that the mitigation measures contained in the EIA Report accompanying the application are fully implemented.*

30. Site Decommissioning, Restoration and Aftercare Strategy

No Development shall commence unless and until a decommissioning, restoration and aftercare strategy has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH and SEPA). The strategy shall outline measures for the decommissioning of the Development and restoration and aftercare of the site, and shall include proposals for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environmental management provisions.

Reason: *To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.*

31. Site Decommissioning, Restoration and Aftercare Plan

(i) No later than five years prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved decommissioning, restoration and aftercare strategy (condition 29), shall be submitted for the written approval of the Planning Authority in consultation with SNH and SEPA.

(ii) The total period for decommissioning and restoration of the Site in accordance with this condition shall not exceed 33 years from the Date of Final Commissioning without the prior written approval of the Scottish Ministers in consultation with the Planning Authority.

(iii) The detailed decommissioning, restoration and aftercare plan shall provide updated and detailed proposals, in accordance with relevant guidance at that time, for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall include (but is not limited to):

- (a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases);
- (b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
- (c) a dust management plan;
- (d) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network, including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
- (e) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
- (f) details of measures for soil storage and management;
- (g) a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
- (h) details of measures for sewage disposal and treatment;
- (i) temporary site illumination;
- (j) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays;
- (k) details of watercourse crossings; and
- (l) a species protection plan based on surveys for protected species (including birds) carried out no longer than eighteen months prior to submission of the plan.

(iv) The Development shall be decommissioned, the site restored and aftercare undertaken in accordance with the approved plan, unless and until otherwise agreed in writing in advance with the Planning Authority in consultation with SNH and SEPA.

Reason: To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.

32. Site Inspection Plan

- (1) Prior to the Date of Final Commissioning, the Company must submit a draft Site Inspection Strategy (SIS), for the written approval of the Planning Authority. This shall set out details for the provision of site inspections and accompanying Site Inspection Reports (SIR) to be carried out at 25 years of operation from the Date of Final Commissioning. At least one month in advance of submitting the SIR, the scope of content shall be agreed with the Planning Authority. The SIR shall include, but not be limited to:
 - (a) Requirements to demonstrate that the infrastructure of the Development is still fit for purpose and operating in accordance with condition 2 and condition 35; and
 - (b) An engineering report which details the condition of tracks, turbine foundations and the wind turbine generators and sets out the requirements and the programme for the implementation for any remedial measures which may be required.
- (2) Thereafter the SIS and SIR shall be implemented in full unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *To ensure the condition of the infrastructure associated with the Development is compliant with the EIA report, condition 2 and condition 35 and is to ensure the Development is being monitored at regular intervals throughout its operation.*

33. Financial Guarantee

At least one month prior to the commencement of the development, a guarantee to cover all site restoration and aftercare liabilities imposed on the expiry of this consent will be submitted for the written approval of the planning authority. Such guarantee must-

- i. be granted in favour of the planning authority;
- ii. be granted by a bank or other institution which is of sound financial standing and capable of fulfilling the obligations under the guarantee;
- iii. be for an amount which covers the value of all site restoration and aftercare liabilities as determined by the planning authority at the commencement of development;
- iv. contain provisions so that all the site restoration and aftercare liabilities as determined at the commencement of development shall be increased on each fifth anniversary of the date of this consent;
- v. come into effect on or before the date of commencement of development, and expire no earlier than 24 months after the end of the aftercare period;

No work shall begin at the site until (1) written approval of the Planning Authority has been given to the terms of such guarantee and (2) thereafter the validly executed guarantee has been delivered to the Planning Authority.

In the event that the guarantee becomes invalid for any reason, no operations will be carried out on site until a replacement guarantee completed in accordance with the terms of this condition is lodged with the Planning Authority.

Reason: *to ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed planning permission in the event of default by the Company.*

34. Unoccupied Property

That the property Low Broomerside shall remain unoccupied for the lifetime of the Development hereby approved unless otherwise agreed in writing by the Planning Authority.

Reason: *In the interests of residential amenity.*

35. Noise

The rating level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes (to this condition), shall not exceed the values for the relevant integer wind speed set out in, or derived from, the table attached to these conditions at any dwelling which is lawfully existing or has planning permission at the date of this permission and:

a) The wind farm operator shall continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d). These data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Local Planning Authority on its request, within 14 days of receipt in writing of such a request.

b) No electricity shall be exported until the wind farm operator has submitted to the Local Planning Authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Local Planning Authority.

c) Within 21 days from receipt of a written request from the Local Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

d) The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Local Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Local Planning Authority under paragraph (c), and such others as the independent consultant considers likely to result in a breach of the noise limits.

e) Where a dwelling to which a complaint is related is not listed in the tables attached to these conditions, the wind farm operator shall submit to the Local Planning Authority for written approval proposed noise limits selected from those listed in the Tables to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Local Planning Authority for the complainant's dwelling.

f) The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Local Planning Authority for compliance measurements to be made under paragraph (c), unless the time limit is extended in writing by the Local Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Local Planning Authority with the independent consultant's assessment of the rating level of noise immissions within 21 days of submission of the independent consultant's assessment pursuant to paragraph (d) above unless the time limit has been extended in writing by the Local Planning Authority.

Table 1 - Noise Limits for the predicted worst case scenario (Proposed development only) - Noise limits expressed in dB LA90,10 minute as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10 minute periods.

Location

Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods.

Receptor	4m/s	5m/s	6m/s	7m/s	8m/s	9m/s	10m/s	11m/s	12m/s
Shielpark	24	30	32	33	32	32	32	32	32
Monksfoot	30	36	38	39	38	38	38	38	38
Carmacoup Fm Cott	26	32	34	35	34	34	34	34	34
Viaduct Cottage	27	32	35	35	35	35	35	35	35
Bungalow Cottage	25	31	33	34	33	33	33	33	33
Longhouse Cottage	26	31	34	34	34	34	34	34	34
Braeface Cottage	27	32	34	35	35	35	35	35	35
Hillview Crescent	27	32	35	35	35	35	35	35	35
Hazelside Farm	25	30	33	33	33	33	33	33	33
Station House	24	30	32	33	32	32	32	32	32
Blackwood Cottage	24	29	32	32	32	32	32	32	32
Scrogton	22	27	30	30	30	30	30	30	30
Scrogtonhead	24	29	32	32	32	32	32	32	32

The above values are subject to the accuracy of tables 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7 and 9.8 The Hagshaw Hill Wind Farm Repowering Noise and Vibration statement Chapter 9. This as described within the attached advisory as they relate to the day and night immisions both from the proposed development and also the resultant cumulative levels at those receptors identified.

Hazelside Farm and Blackwood Cottage are financially involved and are attributed the elevated immission level of 45dB measured as an LA90,10 minute.

Guidance Notes for Wind Farm Noise Conditions

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

- (a) Values of the $L_{A90, 10 \text{ minute}}$ noise statistic should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.
- (b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the Developer shall submit for the written approval of the Local Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.
- (c) The $L_{A90, 10 \text{ minute}}$ measurements should be synchronised with measurements of the 10-minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.
- (d) To enable compliance with the conditions to be evaluated, the Developer shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10-minute periods shall commence on the hour and in 10- minute increments thereafter.
- (e) Data provided to the Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

- (f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

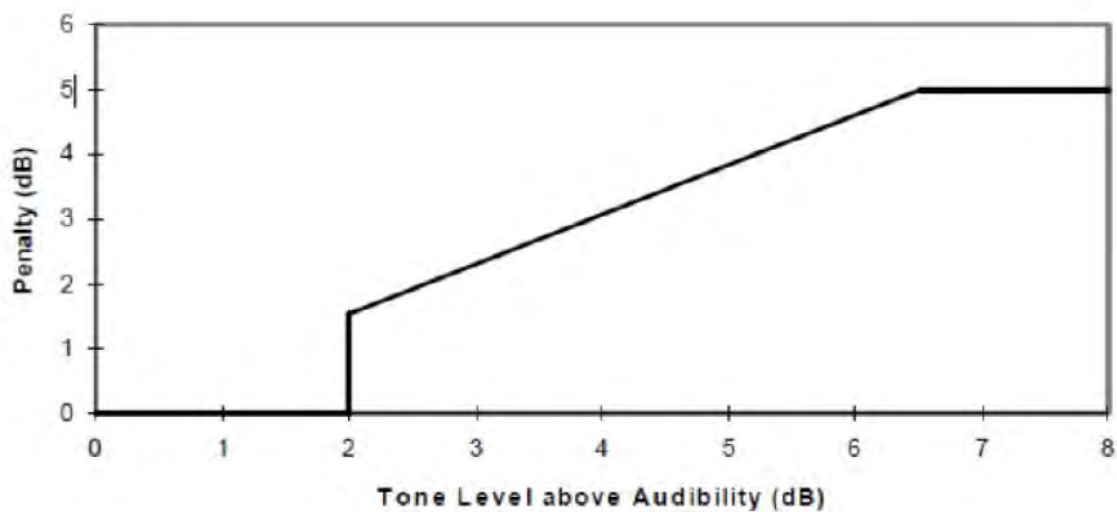
Guidance Note 2

- (a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b).
- (b) Valid data points are those measured in the conditions specified in the agreed written protocol under paragraph (d) of the noise condition, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions the Local Planning Authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.
- (c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90, 10 minute noise measurements and corresponding values of the 10- minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

- (a) Where, in accordance with the approved assessment protocol under paragraph (d) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.
- (b) For each 10 minute interval for which LA90, 10 minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.
- (c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

- (d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.
- (e) A least squares “best fit” linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.
- (f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

- (a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the Local Planning Authority in its written protocol under paragraph (d) of the noise condition.
- (b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.
- (c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant’s dwelling approved in accordance with paragraph (e) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

- (d) The Developer shall ensure that all the wind turbines in the Development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:
- I. Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the Local Planning Authority in its written request under paragraph (c) and the approved protocol under paragraph (d) of the noise condition.
 - II. The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

- III. The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.
- IV. If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Local Planning Authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Local Planning Authority for a complainant's dwelling in accordance with paragraph (e) of the noise condition then the Development fails to comply with the conditions.

Definitions

In this consent and deemed planning permission:-

“Commencement of the Development” means the date on which Development shall be taken as begun in accordance with section 27 of the Town and Country Planning (Scotland) Act 1997 (as amended).

“the Company” means Hagshaw Hill Repowering having its registered office at I A Stewart & Co, The Mechanics Workshop, New Lanark, Lanark, ML11 9DB, Company No. SC603085, or such other person who from time to time may lawfully have the benefit of this consent.

“Date of First Commissioning” means the date on which electricity is first exported to the grid network on a commercial basis from any of the wind turbines forming part of the Development.

“Date of Final Commissioning” means the earlier of (i) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (ii) the date falling twenty-four months from the Date of First Commissioning.

“the Development” means the development as described in Annex 1 authorised by the section 36 consent and deemed planning permission.

“HES” means Historic Environment Scotland.

“Planning Authority” means South Lanarkshire Council.

“SEPA” means Scottish Environmental Protection Agency.

“Site” means the area of land outlined in red on figure 1.2a, 1.2b, 1.2c site layout plan of the Environmental Impact Assessment report and Annex 3 of this decision letter.

“SNH” means Scottish Natural Heritage.

“storage technology” means the electricity storage technology type that is used by the Development.

T: 0141-242-0361
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[REDACTED]
Blue Energy
10 West Street
Alderley Edge
SK9 7EG

26 June 2020

Dear [REDACTED]

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF HIGH CONSTELLATION WIND FARM, LOCATED 4 KILOMETRES SOUTHEAST OF CLACHAN, WITHIN THE PLANNING AUTHORITY AREA OF ARGYLL AND BUTE COUNCIL.

Application

I refer to the application made on 04 June 2019 under section 36 of the Electricity Act 1989 (“the Act”) made by High Constellation Windfarm Ltd, a company incorporated under the Companies Act with company number 11800500 and having its registered office at 10 West Street, Alderley Edge, Cheshire, SK9 7EG (“the Company”), for the construction and operation of High Constellation Wind Farm, a wind powered electricity generating station comprising of 10 wind turbines with a ground to blade tip height of up to 149.9 metres and a battery storage facility (the “proposed Development”) with a generation capacity exceeding 50 megawatts, approximately 4 kilometres southeast of Clachan within the planning authority area of Argyll & Bute Council (“the Planning Authority”).

This letter contains the Scottish Ministers’ decision to grant section 36 consent for the development as more particularly described at Annex 1.

Planning Permission

In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 the Scottish Ministers may on granting consent under section 36 of the Electricity Act for the construction and operation of a generating station direct that planning permission be deemed to be granted in respect of that generating station and any ancillary development.

This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.

Proposed Development and Site

The proposed Development is sited in Argyll and Bute on the Kintyre Peninsula approximately 4 kilometres southeast of Clachan, 10 Kilometres north of Carradale and 18 kilometres south of Tarbert. The site of the proposed Development covers approximately 1,317 hectares and consists of extensive areas of rough upland landscape, the predominant land use being for commercial forestry.

No public roads are located within the site although a number of existing forest roads, including the access track for the operational Cour Wind Farm, are located within the site. The Kintyre Way, a long distance path (161 kilometres) which takes a winding route down the length of the Kintyre peninsula, runs along and crosses short sections of access track in the northern section of the site.

The nearest settlement is Clachan, 4 kilometres to the northwest. There are no residential properties within the site and while there are a number of dispersed properties surrounding the site, predominantly to the east along the B842, none are within 1.5 kilometres of a turbine location. The boundary of the proposed Development is adjacent to the Kintyre Goose Roosts Special Protected Area ("SPA") classified for its nonbreeding Greenland white-fronted goose population.

The proposed Development comprises of 10 wind turbines with a ground to blade tip height not exceeding 149.9 metres, with a rotor diameter up to 136 metres and a battery storage facility. The battery storage facility will comprise of up to 30 storage units of 6 metres x 2.45 metres x 2.6 meters (which equates to the size of a standard lorry container). It is estimated that, based on current technology, the battery storage facilities will be capable of generating between 3MWh – 15MWh.

Other key elements of the proposed Development include: two onsite borrow pits; foundations and crane hardstanding areas at each turbine base; a permanent anemometry mast; a substation, control building and welfare kiosk; formation of substation/ control building compound, onsite underground cabling; external electrical infrastructure and vehicle parking; two temporary construction compounds; up to 4.7 kilometres of new access track; upgrading of 4.4 kilometres existing forestry track; and, upgrading of approximately 4 kilometres of existing access track.

Consultation, EIA Regulations and other Environmental Considerations

Under paragraph 2(1) of Schedule 8 to the Act, the relevant planning authority is required to be notified in respect of a section 36 consent application. Argyll and Bute Council were duly notified. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EIA Regulations") the Company submitted an Environmental Impact Assessment report ("the EIA report") in support of the Application describing the proposed Development and giving an analysis of its environmental effects. In accordance with requirements of the EIA Regulations and the requirements of the Electricity (Applications for Consent) Regulations 1990 ("Consents Regulations"), the EIA report and all associated documentation was made available for public inspection. Notices were published in

the Edinburgh Gazette, national and local press and on the Company's application website informing the public of the application and, if they wished to do so, how representations to the Scottish Ministers could be made

To comply with the EIA Regulations, Scottish Ministers are required to consult the relevant Planning Authority, as well as Scottish Natural Heritage ("SNH"), the Scottish Environment Protection Agency ("SEPA") and Historic Environment Scotland ("HES") as well as other persons that are likely to be concerned by the proposed Development by reason of their specific environmental responsibilities.

Scottish Ministers are satisfied that, in accordance with requirements of both the Consents Regulations and the EIA Regulations, a notice of the proposed Development was published on the Company's application website and advertised in local and national press. The application was also placed in the public domain and the opportunity given for those wishing to make representations to do so. Notifications were sent to Argyll & Bute Council as the relevant Planning Authority as well as to SNH, SEPA and HES.

Scottish Ministers have had regard to the matters set out in Schedule 9 of the Electricity Act 1989 in respect of the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

Scottish Ministers have given consideration to the extent to which the Company has demonstrated in the Application submitted that they have done what they reasonably can to mitigate any effect, which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites buildings or objects.

In accordance with section 36(5A) of the Act, before granting any section 36 consent Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to protection of the water environment; and,
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

SEPA's advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the proposed Development. In their response to Scottish Ministers SEPA direct the Company to the Regulations section of the SEPA website for advice on regulatory requirements and good practice advice.

Scottish Ministers are satisfied that the EIA report has been produced in accordance with the EIA Regulations. Scottish Ministers have assessed the environmental impacts of the proposed Development and taken the environmental information, EIA report, representations, consultation responses including those from SNH, SEPA, HES and the Planning Authority into consideration in reaching their decision.

Scottish Ministers consider that there is sufficient information to allow Ministers to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

Under paragraph 3(3) of Schedule 9 of the 1989 Act, Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to stock of fish in any waters. Scottish Ministers are satisfied that the Company has avoided so far as possible causing injury to fisheries or to stock fish in any waters thereby meeting the requirements of paragraph.

Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations and EIA Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the proposed Development.

Conservation of Habitats and Species Regulations

The Conservation of Habitats and Species Regulations 2017 (“the Habitats Regulations”) require Scottish Ministers to consider whether the proposed Development would be likely to have a significant effect on a European site or European offshore marine site (either alone or in combination with other plans or projects), as defined in the Habitats Regulations, and if the development is directly connected with or necessary to the management of the site.

The Kintyre Goose Roosts SPA lies adjacent to the site boundary of the proposed Development. SNH advised of the connectivity between the proposed Development and the Kintyre Goose Roosts SPA in relation to the qualifying species, non-breeding Greenland white-fronted geese. Consequently, Scottish Ministers are required to consider the effect of the proposed Development on the Kintyre Goose Roosts SPA by carrying out a Habitats Regulations Appraisal (“HRA”). Scottish Ministers can confirm that a HRA has been undertaken. The environmental information to inform the appraisal was presented in the EIA report which accompanied the Application. The HRA has therefore been produced using information already advertised in accordance with the EIA regulations.

The conclusion of the Scottish Ministers, following advice from SNH, is that the proposed Development will not adversely affect the integrity of the Kintyre Goose Roosts SPA.

Public Inquiry

In terms of paragraph 2 of Schedule 8 to the Electricity Act 1989 if the Planning Authority make an objection to the Application and that objection is not withdrawn, the Scottish Ministers must cause a public inquiry to be held unless the Scottish Ministers

propose to accede to the application subject to such modifications or conditions as will give effect to the objection of the relevant planning authority. Following the consultation exercise the Planning Authority did not object, therefore, a public inquiry is not a statutory requirement.

Paragraph 3 of Schedule 8 to the Act provides that where objections or copies of objections have been sent to Scottish Ministers in pursuance of Regulations made under that paragraph, Scottish Ministers must consider those objections together with all other material considerations with a view to determining whether a public inquiry should be held with respect to the application and, if they think it appropriate to do so, they must cause a public inquiry to be held.

Scottish Ministers have considered the objections raised by West Kintyre Community Council and East Kintyre Community Council as well as the 22 public objections received and taking all material considerations and other consultation responses into account, consider that there are no significant issues which have not been adequately considered in the EIA report and the consultation responses.

Scottish Ministers are satisfied there is sufficient information to be able to make an informed decision on the application and that it would not be appropriate to hold a public inquiry.

Summary of the Consultation Responses

Argyll and Bute Council (“the Planning Authority”) does not object to the proposed Development. In their consultation response, the Planning Authority advised that the proposed Development is consistent with the Argyll and Bute Local Development Plan 2015 and its associated policies.

The Planning Authority made a number of recommendations for mitigation, pre-determination matters and conditions to be considered and imposed to any planning permission granted by Scottish Ministers.

The Planning Authority asked that Scottish Ministers take account of the following matters, raised in their response to the consultation on the proposed Development, in their consideration of the proposed Development:

- Consideration of the concerns raised by HES in their consultation response in respect of the impact of the proposed Development on: An Dunan, dun; Cour House and Dun Skeig;
- Consideration of SNH’s response regarding further mitigation to reduce the height of the wind turbines to make them more compatible with Cour wind farm;
- Consideration of the relocation of turbine number 8 into a more shallow area of peat; and
- Consideration of the mitigation measures suggested by the Council’s Consultant Landscape Architect to relocate and/or reduce the height of turbines (in particular T9 and T10) with the aim of mitigating significant adverse effects, especially on close views in the Cour area.

Scottish Ministers have given detailed consideration to the recommendations made by the Planning Authority in this decision letter under the heading “Assessment of Determining Issues”.

The Planning authority also recommended a number of conditions that had been requested by consultees in response to the consultation on the proposed Development.

Scottish Ministers have considered the recommendations made by the Planning Authority and have imposed appropriately worded conditions (see Annex 2 for all conditions) which satisfy the recommendations made by the Planning Authority.

SEPA does not object to the proposed Development subject to appropriately worded conditions relating to:

- a Peat Management Plan;
- a Wind Farm Forest Plan;
- a Habitat Management Plan;
- Watercourse Crossings;
- Buffers around Water Bodies;
- Micrositing;
- a Decommissioning and Restoration Plan; and,
- a Construction and Environment Plan which will include measures to mitigate or reduce effects on Groundwater Dependant Terrestrial Ecosystems;

SEPA also require there to be a finalised design of the substation and battery storage which will be part of the proposed Development. SEPA provided detailed advice in relation to the Habitat Management Plan and regulatory requirements and good practice.

Scottish Ministers have imposed appropriately worded conditions (see Annex 2) to address the matters raised by SEPA.

SNH does not object to the proposed Development. They advised that although it will result in significant adverse landscape and visual impacts these will be relatively limited.

SNH advised that they agreed with the assessment of ecological impacts within the EIA report and recommended that the mitigation measures proposed therein be incorporated into any consent granted by Scottish Ministers.

SNH also provided further advice regarding protected species in a confidential annex to its response. SNH welcomed the approach outlined within the EIA report regarding habitat management, in particular the restoration of blanket bog and heath habitats. SNH are also in support of the mitigation measures and construction principles described in Section 6 ‘Construction Issues and Mitigation Measures’ of Technical Appendix 9.3: Peat Landslide and Hazard Risk Assessment in the EIA report.

SNH recommended there be a condition for a Habitat Management Plan and that said Plan gives full and appropriate consideration to Golden Eagles, the Kintyre Goose Roosts Special Protected Area, the Loch Garasdale component of the Kintyre Goose

Lochs Site of Specific Scientific Interest and to the restoration of blanket bog and heath habitats. SNH also recommended that habitat restoration work referred to in the EIA report should also be appropriately incorporated in the conditioned Habitat Management Plan.

SNH are of the opinion that that the proposed Development will not adversely affect the integrity of the Kintyre Goose Roosts Special Protected Area and advised that Scottish Ministers are required to complete a Habitats Regulations Appraisal in respect of the effect the proposed Development will have on it.

Scottish Ministers have given consideration to the recommendations made by SNH and have imposed appropriately worded conditions (see Annex 2) to address these recommendations.

HES does not object to the proposed Development. They advised that although the proposed Development will have an impact on the following heritage assets, it would not be of such a magnitude to cause them to object:

- Cour House Saddell (Category A Listed Building, LB18360);
- An Dunan, dun 70m SW of Minen (Scheduled Monument, Index no.3184); and
- Dun Skeig, duns and fort (Scheduled Monument Index no. 2491).

Scottish Ministers have taken account of HES response, alongside the Planning Authority's request to explore mitigation measures. Scottish Ministers agree with HES conclusions.

HES raised concern that the cumulative effect of Ronachan and Stewartfield wind farms were not included in the assessments carried out for the EIA report. Scottish Ministers, having consulted with the Planning Authority regarding the status of Ronachan and Stewartfield wind farms at the time the application was submitted, are satisfied that both proposals have been addressed appropriately within the EIA report.

Internal Scottish Government advisors

Marine Scotland does not object to the proposed Development subject to conditions in respect of fish monitoring and water quality monitoring.

Scottish Ministers have imposed an appropriately worded condition (see Annex 2) which gives effect to Marine Scotland's recommendation.

Transport Scotland does not object to the proposed Development subject to a condition for a Construction Traffic Management Plan and additional conditions covering abnormal loads on the trunk road network, appropriate traffic control and management and that there be appropriate wheel cleaning facilities within the site of the proposed Development

Scottish Ministers have imposed appropriately worded conditions (see Annex 2) to address Transport Scotland's requirements.

Scottish Forestry raised a number of initial concerns regarding the proposed Development. Following further engagement with the Company, Scottish Forestry

confirmed they are content that their concerns have been or will be addressed through appropriately worded conditions. Scottish Forestry requested that Scottish Ministers include conditions to secure compensatory planting; a long term forestry plan; a felling and restocking plan; and, an operational plan to be included as part of the Construction Environmental Management Plan and the Habitat Management Plan.

Scottish Ministers have imposed appropriately worded conditions (see Annex 2) to address Scottish Forestry's requirements.

Advisors to Scottish Government

Ironside Farrar recommended minor revisions to the Peat Landslide Hazard Risk Assessment in order to ensure the assessment is sufficiently robust. Following further engagement with the Company and the provision of clarifications, Ironside Farrar are content with the assessment and had no further comments to make.

Other Consultees

Defence Infrastructure Organisation does not object to the proposed Development. Defence Infrastructure Organisation request that the development be fitted with MOD accredited aviation safety lighting. It requested that they be advised of the following prior to commencement of construction:

- the date construction starts and ends;
- the maximum height of construction equipment; and
- the latitude and longitude of every turbine.

Highland and Islands Airport does not object to the proposed Development. Highlands and Islands Airport initially requested that a steady red omnidirectional aviation warning light be fitted at the hub height of the turbines that mark the outer extremities of the site. Following further engagement with the Company, Highlands and Island Airport confirmed that lighting is no longer required.

North Ayrshire Council, a neighbouring planning authority, does not object to the proposed Development. North Ayrshire Council considered that the proposed Development has the potential to have significant adverse impacts on the qualities of the North Arran National Scenic Area (NSA) and recommends that full consideration should be given to the significance of these impacts, with consideration of the mitigation suggested by both the Planning Authority and SNH to potentially lessen these impacts to an acceptable level. It was also recommended that further information regarding the dimensions and appearance of the compound containing battery storage in order to consider any potential impacts on the North Arran NSA.

Scottish Ministers have given further consideration to the recommendations made by North Ayrshire Council in this letter under the heading "*Assessment of the Determining Issues*".

RSPB Scotland does not object to the proposed Development. RSPB Scotland raised concerns that its potential impacts may have been underestimated. RSPB Scotland welcomed the proposed Habitat Management Plan and requested that this be included as a condition to any consent granted. RSPB Scotland recommended conditions for

the appointment of an Ecological Clerk of Works and for post construction habitats and bird monitoring.

Scottish Ministers have imposed appropriately worded conditions (see Annex 2) to address RSPB Scotland's recommendations.

West Kintyre Community Council concurred with the objections made by residents of West Kintyre regarding the landscape, visual and cumulative impact of the proposed Development. Concerns relating to effects on the local tourism economy and local traffic flow during construction were also raised.

East Kintyre Community Council objected to the proposed Development because it will have an impact on the visual amenities within East Kintyre and on tourism within the area. East Kintyre Community Council also raised concerns regarding Blue Energy's implementation of Scottish Government Good Practice on Community Benefits.

Scottish Ministers are satisfied that the landscape and visual impacts of the proposed Development are acceptable in the balance of the provision of renewable energy in a location at which there currently is an operational wind farm. Scottish Ministers' consideration of the landscape and visual concerns, local tourism economy and local traffic flow concerns are included under the section titled "Assessment of the Determining Issues" of this decision letter.

Full details of the consultation responses are available on the Energy Consents website at www.energyconsents.scot

Scottish Ministers' consideration of the landscape and visual concerns, local tourism economy and local traffic flow concerns raised by consultees has been undertaken under "Assessment of the Determining Issues" of this decision letter.

British Horse Society, British Telecom, the Crown Estate Glasgow Prestwick Airport, the Joint Radio Company, NATS Safeguarding, Scottish Rights of Way and Access Society, Scottish Water and Visit Scotland do not object to the proposed Development.

Argyll Fisheries Trust, Civil Aviation Authority, the John Muir Trust, Mountaineering Scotland, Scottish Wildlife Trust, Scottish Wild Land Group Tarbert and Skipness Community Council did not respond to the consultation.

Summary of Public Representations

Scottish Ministers received 37 representations from members of the public in support of the proposed Development and 22 representations from members of the public objecting to the Application.

Representation in support of the proposed Development state the following:

- the proposed Development will utilise existing infrastructure (e.g. roads built for the neighbouring Cour Wind Farm) thereby reducing construction requirements;
- community benefits would outweigh the potential visual impacts and adverse impact on the environment;
- positive contribution to achieving renewable energy targets; and
- the effective use of grid by including battery storage within the proposed Development.

Reasons for objecting included the following:

- the scale and height of the proposed Development;
- the cumulative impact of the proposed Development alongside the existing wind farms in the area would have an adverse impact in terms of landscape and visual which will result in a detrimental impact on tourism and the local economy;
- adverse ornithological impacts;
- adverse impacts on habitats and wildlife;
- adverse impacts on listed buildings and scheduled monuments in the area;
- adverse impacts on residential amenity especially regarding shadow flicker and noise pollution;
- potential adverse effects on private water supplies;
- the proposed Development will generate under 50MW, and should therefore be determined by Argyll & Bute Council; and,
- the community benefit would be inadequate to counter balance the negative impacts on the village.

Scottish Ministers note the concern raised in representations from members of the public that the generating capacity of the proposed Development will not exceed 50MW and should therefore be determined by Argyll & Bute Council and not by the Scottish Ministers. As detailed within the application, in addition to the wind turbines forming the proposed Development, a battery storage element is also proposed. In combination, this brings the total generating capacity of the proposed Development to approximately 55.5MW.

The Policy Context

Climate Change and Renewable Targets

The seriousness of climate change, its potential effects and the need to cut carbon dioxide emissions, remain a priority of Scottish Ministers.

The Climate Change (Scotland) Act 2009, passed by the Scottish Parliament in 2009, sets out the targets for reducing greenhouse gas emissions as an interim 42% reduction target for 2020 and an 80% reduction target for 2050. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 (2019 Act) received Royal Assent on 31 October 2019 and sets a target for Scotland to be carbon-neutral, meaning net-zero CO², by 2045 at the latest. Additionally the Act set out two interim targets to reduce emissions by 75% by 2030 and by 90% by 2040.

The Scottish Government's 2020 Route map for Renewable Energy in Scotland published in June 2011 and updated in September 2015 confirms that the Scottish Government's target for renewable electricity generation is for renewables to generate at least the equivalent of 100% of gross annual consumption by 2020.

The Scottish Government's ambitions for renewables and the delivery of clean electricity in Scotland go beyond the current 2020 target. The Scottish Government has set a 2030 decarbonisation target, to achieve a carbon intensity of below 50 gCO₂/kWh of electricity generation in Scotland.

Published Energy Trends data showed that in 2019 30.5 terrawatt hours ("TWh") of electricity was generated in Scotland. This is a 15.3% increase to that generated in 2018 and is the equivalent of powering all households in Scotland for over three years.

The renewable electricity generated has meant that, in 2019, significant progress was made towards Scotland's renewable electricity target of 100% by 2020. In 2019 an estimated 90.0% of gross electricity consumption comes from renewable sources. This was up from 76.2% in 2018.

Data as at September 2019 shows that Scotland had 11.7 gigawatts ("GW") of installed renewable electricity generation capacity, with an additional 12.9 GW of capacity either under construction or consented, the majority of which are wind generation projects.

Scottish Energy Strategy and Onshore Wind Policy Statement

Scottish Energy Strategy (SES) and Onshore Wind Policy Statement (OWPS) were published in December 2017. SES sets out a vision for the future energy system in Scotland through to 2050 and sets out the priorities for an integrated system-wide approach that considers the use and supply of energy for heat, power and transport. The strategy provides a long-term vision to guide energy policy decisions to tackle the challenges of decarbonising heat and transport in order to meet Scotland's long-term energy and climate change targets. The OWPS reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development and capacity in locations across Scotland where it can be accommodated in appropriate locations.

Scotland's Third National Planning Framework (NPF3)

NPF3 is the spatial expression of the Scottish Government's economic strategy. It brings together plans and strategies across sectors to provide a coherent vision of how Scotland should evolve over the next 20 to 30 years. It sets out the Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology.

NPF3 sets out the strategic spatial policy context for decisions and actions by Scottish Government and its agencies, and all planning authorities are required to reflect this policy in their strategic and local development plans. Amongst its wide-ranging policies, NPF3 sets out the need for a strategy to reduce reliance on fossil fuels and emphasises not just the challenges in embracing a renewable and low carbon

economy while protecting and sustaining environmental assets but also the wider benefits that this will bring, especially in employment creation. It also sets out that onshore wind will continue to make a significant contribution to diversification of energy supplies. In Scotland, there has been significant progress towards low carbon objectives whilst we have continued to protect our special places from significant adverse impacts.

NPF3 together with Scottish Planning Policy further sets out what is expected of the planning system, including a spatial strategy for low carbon place where an 80% reduction in greenhouse gas emissions is achieved by 2050.

The Scottish Ministers are satisfied that the proposed Development makes a considerable and valuable contribution towards meeting greenhouse gas emissions and renewable electricity targets, as well as the diversification of energy supplies.

Scottish Planning Policy (SPP)

The Scottish Government supports wind energy development in appropriate locations. Scottish Planning Policy (SPP) 2014 aligns itself with NPF3 and one of its policy principles states that there will be a presumption in favour of development that contributes to sustainable development.

SPP sets out that policies and decisions should be guided by certain principles giving due weight to net economic benefit; the contribution to renewable energy targets; supporting delivery of infrastructure, including energy, and; protecting natural heritage, including landscape and the wider environment. SPP also states that the planning system should support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity.

The Scottish Ministers are satisfied that matters relating to SPP, and in particular paragraph 169, have been addressed in the EIA report and in the responses received to the consultations carried out.

The Scottish Ministers are satisfied the proposed Development will not create any significant effects on National Scenic Areas, National Parks or any other area which has a designation. This consideration is supported by the fact that no objection relating to effects on landscape character were received from any consultee.

The Scottish Ministers have considered the effects that the proposed Development will have on the landscape character of Argyll & Bute and are satisfied that they are acceptable in the context of the benefits that the proposed Development will bring in terms of net economic benefit, contributing to renewable energy and climate change targets, while protecting the historical and natural environment. On balance, Scottish Ministers acknowledge there will be significant effects on the landscape character, however, conclude that the benefits of the development would outweigh these effects. Scottish Ministers are satisfied that the proposed Development contributes to sustainable development in accordance with SPP.

Compatibility with Local Development Plan and Supplementary Guidance

The Planning Authority assessed the proposed Development against Argyll & Bute Local Development Plan 2015 and Supplementary Guidance to the Argyll & Bute Local Development Plan 2015 & 2016 and concluded that on balance, the proposed Development is consistent with both the Local Development Plan and the Guidance.

Scottish Ministers accept and agree with the Planning Authority's view that the proposed Development is supported by their Local Development Plan and Supplementary Guidance and have imposed the relevant conditions as requested by the Planning Authority.

The Scottish Ministers Considerations

Main Determining Issues

Having considered the Application, the EIA report, responses from consultees and third parties and Scottish Government policies, Scottish Ministers consider that the main determining issues are:

- the environmental impacts of the proposed Development, in particular the landscape and visual impacts, including cumulative effects;
- the estimated economic benefits which the proposed Development is likely to bring;
- the extent to which the proposed Development accords with and is supported by Scottish Government policy and the terms of the Argyll and Bute local development plan; and
- the renewable energy benefits of the proposed Development.

Assessment of the Determining Issues

Landscape and visual Impacts

As outlined by the Planning Authority's Consultant Landscape Architect the proposed Development will be located within the Upland forest Moor Mosaic Landscape Character Type which is of lower sensitivity to large scale wind energy development because of its generally simpler landform, land cover and expansive scale.

In landscape terms, taking account of the Planning Authority's Spatial Framework, the site in which the proposed Development will be situated has been identified as partially within a Group 2 area. Approximately 40% of the Site is located within an area identified in the spatial framework for wind turbines over 50 metres as being in Group 2 - Areas of Significant Protection as a consequence of the presence of Carbon Rich Soils and Peatland and not any landscape, visual or scenic constraint. The remaining approximate 60% is identified as being in Group 3 – Areas where Wind Farms are likely to be acceptable. Group 2 are areas where further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be subsequently overcome by siting, design or other mitigation.

Policy LDP 6 - Supporting the Sustainable Growth of Renewables of Argyll and Bute's Local Development Plan, Supplementary Guidance 2 (Renewable Energy) and SPP require applications for wind turbine developments to be assessed against any landscape and visual impacts.

The Company provided a full and detailed assessment of the landscape and visual impacts of the proposed Development in the EIA report, which has been considered by the Planning Authority and SNH before responding to Scottish Ministers on the proposed Development.

The Company summarise in the EIA report that the proposed Development would give rise to significant effects on landscape character during the construction and operation of the Development, albeit contained within the localised extent of approximately 5 to 6 km. It would give rise to significant effects on visual amenity out to approximately 11 to 12 km during the construction and operation of the Development. Landscape and visual impacts beyond these ranges would not be significant. Significant cumulative effects would also arise in localised and close range landscape characters and on road-users on the B842 on Kintyre, on recreational water-users on the Kilbrannan Sound and on residents in the settlement of Catacol on Arran.

All effects during the construction of the Development would be short-term and reversible and all effects during the operation of the Development would be long-term and reversible. All effects would be adverse in nature.

The Planning Authority's View

The Planning Authority have no objection to the proposed Development they concluded, following advice from their consultant landscape architect and from SNH, that *"the Landscape and Visual Impact of the proposal is acceptable, subject to consideration of the suggested mitigation measures and condition to secure further details of the battery storage compound. It is recommended that the views of North Ayrshire Council are sought by the Energy Consents Unit prior to reaching a decision on this proposal, not only in regard to any impact on the North Arran NSA from the turbines, but also the battery storage area, which is most likely to have a degree of visibility from Arran. It is also considered that the mitigation recommended by SNH and in particular, the Council's Landscape Consultant regarding further redesign to relocate and/or reduce the height of turbines (in particular T9 and 10) is considered, with the aim of mitigating significant adverse effects, especially on close views in the Cour area."*

SNH's view

SNH advised that the proposed Development will *"result in relatively limited significant adverse landscape and visual impacts which could be reduced to some degree by mitigation. There would be some significant adverse effects on the views and experience from the northwest coast and hills of Arran in the North Arran National Scenic Area (NSA). There would also be some significant adverse landscape and visual effects as detailed below, including part of the east Kintyre coast, and the Kilbrannan Sound"*.

SNH also advised the "Special Qualities" of the North Arran NSA "relate primarily to the physical, natural and cultural heritage attributes and perceptions of the island, its mountains and coast" and the potential for the proposed Development to affect this is "limited". SNH advised that the proposed Development "would not intrude upon the principal views from the east coast across the Kilbrannan Sound towards Arran (e.g. VPs 4, 5 and 9)" and that although it will be seen from the northwest section of the coastal road and there would be "some significant visual effects" the proposed Development "would not be a dominant feature, would be seen in the context of operational wind farms and would not significantly alter the established pattern of wind energy on the spine of Kintyre".

SNH advised that the scale of the proposed Development's turbines will result in significant adverse effects in relation to east Kintyre, especially the Cour area and recommended that turbines 9 and 10, given they are most prominent when seen from lower ground on the east Kintyre coast, be reduced in height to potentially provide a better landscape and visual fit. SNH also recommended that a reduction in height of turbines 4 and 5 are considered given their close proximity to the existing turbines of Cour wind farm.

In relation to the North Arran Wild Land Area ("the WLA") SNH advised "although the proposal is visible from some elevated areas of the North Arran Wild Land Area (WLA), we consider that it would be unlikely to have significant adverse effects on the qualities of the WLA."

Other Views

North Ayrshire Council advised that the proposed Development "has the potential to have significant adverse impacts on the qualities of the North Arran NSA". North Ayrshire Council also advised that "Full consideration should be given to the significance of these impacts and consider if the proposed mitigation from both SNH and Argyll & Bute Council would be sufficient to lessen these impacts to an acceptable level. Further information should also be provided regarding the dimensions and appearance of the compound containing battery storage in order to consider to potential impacts on the NSA".

West Kintyre Community Council and East Kintyre Community Council also raised similar concerns in respect of the landscape and visual impacts of the proposed Development.

Conclusions

Scottish Ministers considered the requested reduction in height of turbines within the proposed Development alongside the information provided within the Landscape and Visual Impact Assessment (LVIA) (Chapter 6 of the EIA report). A site visit was undertaken by Scottish Government officials to consider the LVIA, as well as concerns raised by consultees. The site visit, which facilitated an understanding of the area surrounding the proposed Development, incorporated visits to the following viewpoints:

- Viewpoint 5 - Claonaig Slipway
- Viewpoint 9 - Skipness Castle

- Viewpoint 10 - B8001, west of Gartavaich
- Viewpoint 11 - B842, north of Ravensbay
- Viewpoint 13 - B842, southwest of Cour

Scottish Ministers note that although the visibility of turbines 9 and 10 are more prominent from the Cour area, the turbines have been designed to balance the environmental and technical constraints, whilst still producing an economically viable Development. Travellers along the B842, travelling either north or south, and the within the Cour area will experience their prominence for a very limited amount of time and in most instances, will see both these turbines collectively alongside other turbines in the proposed Development or will experience no visibility of the proposed Development due to the topography of the landscape. The effects will not distract from views that are likely to be focussed out to sea, and therefore should not spoil the overall experience of the panoramic quality of the Kintyre eastern coastline. Scottish Ministers conclude that although the reduction in height of turbines 4 and 5 may reduce the perception of size disparity between these turbines and the existing Cour, these are rarely seen in isolation from other turbines within the proposed Development and, as a result, this reduction would cause size disparity of the whole development to become apparent from a number of viewpoints.

Scottish Ministers acknowledge and agree with the views of both the Planning Authority and SNH that the proposed Development will have some limited significant adverse landscape and visual impacts. It is also acknowledged however that no national or regional landscape designations will be significantly affected by the proposed Development and any significant visual effects will be largely localised, with the main effects being on the eastern Kintyre coastline.

Given the Scottish Government policy context, the economics benefits and contribution to renewable energy targets that the proposed Development would bring, on balance the Scottish Ministers consider that the proposed turbines in the landscape are acceptable, and there is no justifiable basis for seeking a reduction in turbine height or removal of turbines 4,5, 9 or 10.

Other Environmental Impacts

Scottish Ministers note that Visit Scotland in their consideration of the proposed Development requested that an independent tourism impact assessment be carried out. West Kintyre Community Council in their objection raised concerns regarding adverse effect on the vital tourist economy of the area.

The Planning Authority did not object to the proposal on the grounds of impacts on tourism and recreation. Scottish Ministers consider Chapter 14 of the EIA report sufficiently addresses tourism impacts and are satisfied that no significant effects will result from the proposed Development.

Economic Benefits

SPP advises that proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include, as well as a number of other considerations, net economic

impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.

The transition to a low carbon economy is an opportunity for Scotland to take advantage of our natural resources to grow low carbon industries and create jobs.

Scottish Ministers agree a key factor in attracting tourists to Argyll & Bute is the landscape and scenery. The potential tourism effects of the proposed Development have been considered in detail within Chapter 14 of the EIA report with particular reference to the evidence available at the time of submission of the Application on the potential impact of wind farms on tourism, including a report by BiGGAR Economics Ltd in 2016 on: Wind Farms and Tourism Trends in Scotland. BiGGAR Economics have since provided a follow up Methodological Critique of the Report “Wind farms and Tourism Trends in Scotland” revised version dated October 2017. There is nothing in the critique report to suggest that the position relating to the impact of turbines on tourism has changed.

None of this suggests that wind farms are likely to have a significant detrimental effect on tourism, nor consequently on the economic benefits of tourism.

The EIA report sets out the opportunities for job creation through the construction phase which is estimated to generate 4.5 permanent FTE (full-time equivalent) jobs. Once operational the proposed Development will have both direct and indirect effects on employment. The proposed Development will be regularly maintained by a specialist maintenance team. Overall it is estimated that the operational phase of the proposed Development will generate employment opportunities equivalent to approximately 1 FTE job. It is likely that there will be an opportunity for some local employment generated as an indirect result of the construction of the proposed Development, which could include supply chain spin-offs for local businesses and sub-contracted work relating to the transportation of construction workers and materials. Construction workers making use of local accommodation and other facilities would further benefit the local economy by spend in local hotels, B&Bs, shops and restaurants.

Whilst it is difficult to precisely quantify overall net economic benefits, given direct and indirect effects and timescales, Scottish Ministers are satisfied the proposed Development has the potential for significant positive net economic benefits both to the local community and Argyll and Bute more generally.

Policy Support

Scotland’s renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this proposed Development. NPF3, SPP, the Energy Strategy, and the Onshore Wind Policy Statement make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

The aforementioned NPF3 sets out Scottish Government’s commitment to establishing Scotland as a leading location for the development of renewable energy technology. In Scotland there has been significant progress towards low carbon

objectives whilst we have continued to protect our special places from significant adverse impacts.

As previously set out, SPP contains guidance in respect of the granting of development consent for wind farm development. SPP is to be read and applied as a whole. It sets out overarching Principal Policies to be applied to all development and Subject Policies which set out guidance in respect of development management. An overarching principle of SPP is that the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost. This means that decisions and policies should be guided by certain principles including, among others, giving due weight to net economic benefit; supporting the delivery of infrastructure; supporting climate change mitigation and protecting natural heritage. The aims of these policies require to be considered and balanced when reaching a decision on applications for wind energy development.

Scottish Government's Energy Strategy and Onshore Wind Policy Statement (OWPS) sets out targets for the increase in the supply of renewable energy. The OWPS in particular reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development in locations across Scotland where it can be accommodated.

The Argyll and Bute Local Development Plan provides the local planning framework for the Argyll and Bute Council area, excluding the Loch Lomond and Trossachs National Park area. The Plan provides the general policy context against which planning applications for new development proposals should be assessed supported by maps, which show the range of development opportunities and constraints within the area.

The proposed Development, if built, will contribute to renewable energy targets and towards reducing greenhouse emissions. Economic benefits to the Scottish economy are anticipated alongside short and longer term benefits to the Argyll and Bute planning authority area.

Scottish Ministers acknowledge that there will be some significant landscape and visual impacts, however, Scottish Ministers are satisfied that overall the proposed Development is appropriately sited and designed. The landscape and visual impacts which remain are acceptable in the context of the benefits that the proposed Development will bring. Scottish Ministers are satisfied that other environmental issues can be appropriately addressed by the mitigation measures set out in the EIA report and secured by conditions.

The Scottish Ministers are therefore satisfied that the proposed Development is supported by national policies.

Renewable Energy Produced and Contribution to Targets and Carbon Payback

NPF3 is clear that planning must facilitate the transition to a low carbon economy, and help to deliver the aims of the Scottish Government's Report on Proposals and

Policies. Our spatial strategy facilitates the development of generation technologies that will help to reduce greenhouse gas emissions from the energy sector. Scotland has significant renewable energy resources, both onshore and offshore.

Policy Principles set out in SPP state that the planning system should:

- Support the transformational change to a low carbon economy, consistent with national objectives and targets, including deriving:
 - 30% of overall energy demand from renewable sources by 2020,
 - 11% of heat demand from renewable sources by 2020, and
 - the equivalent of 100% of electricity demand from renewable sources by 2020.
- Support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity – and the development of heat networks.

Scottish Ministers are satisfied that the proposed Development makes a significant contribution towards meeting greenhouse gas emission and renewable electricity targets. The proposed Development will have an indicative generating capacity of 48MW plus 7.5MW of battery storage based on current technology. The deployment of this amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target for the equivalent of 100% of Scotland's electricity demand to be met from renewable sources by 2020.

Carbon Payback

The carbon payback for the proposed Development has been presented in the EIA report using the approved carbon calculator. In overall terms the proposed Development if built would be expected to have a payback period of 1.5 years of operation (or 5 years on worst case expectations). The CO2 savings would be approximately 2,321,000 tonnes.

Whilst noting the limitations of any such calculations, the online carbon calculator provides the best available means by which carbon calculations can be provided in a consistent and comparable format.

Scottish Ministers are satisfied that the proposed Development would provide carbon savings, and that these savings would be of an order that weighs in favour of the proposed Development.

Conclusions

Reasoned Conclusions on the Environment

Scottish Ministers have fully considered the EIA report and the consultation responses in respect of the proposed Development. The significant effects of the proposed Development on the environment are considered to be those on the landscape. Scottish Ministers are satisfied that other environmental issues can be appropriately

addressed by the mitigation measures set out in chapter 17 of the EIA report and secured by conditions attached to the planning permission deemed to be granted.

Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion addresses the likely significant effects of the proposed Development on the environment. Scottish Ministers are satisfied that this reasoned conclusion is up to date.

Conclusions on Acceptability of the proposed Development

Scotland's renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this proposed Development. NPF3, SPP, and Energy Strategy make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

The National Planning Framework 3 (NPF3) sets out the Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology. NPF3 describes how, in our more remote areas, this will bring new employment, reverse population decline and stimulate demand for development and services, and also that onshore wind will continue to make a significant contribution to diversification of energy supplies. In Scotland there has been significant progress towards low carbon objectives whilst we have continued to protect our special places from significant adverse impacts.

SPP contains guidance in respect of the granting of development consent for wind farm development. SPP is to be read and applied as a whole. It sets out overarching Principal Policies to be applied to all development and Subject Policies which set out guidance in respect of development management. The aims of these policies require to be considered and balanced when reaching a decision on the Application.

In terms of Subject Policy: A Low Carbon Place, the merits of an individual proposal for a wind farm development are to be considered against a range of impacts. A non-exhaustive list of such considerations is given in paragraph 169. This paragraph sets out considerations which are to be taken into account when considering proposals for energy infrastructure development, including wind farms. These considerations include, along with the economic benefits and scale of contribution to renewable energy generation targets, the landscape and visual impacts of the proposed Development and impacts on natural heritage. Scottish Ministers have had regard to those factors when considering this application.

The proposed Development, if built, will contribute to renewable energy targets and towards reducing greenhouse emissions. Economic benefits to the Scottish economy are anticipated alongside short and longer term benefits to the Argyll and Bute planning authority area. Scottish Ministers acknowledge that there will be some significant landscape and visual impacts. Scottish Ministers are satisfied, that overall, the proposed Development is appropriately sited and designed.

The landscape and visual impacts which remain are acceptable in the context of the benefits that the proposed Development will bring. Scottish Ministers are satisfied that other environmental issues can be appropriately addressed by the mitigation

measures set out in the EIA report and secured by relevant conditions attached to the planning permission deemed to be granted by Scottish Ministers.

Duration of Deemed Planning Permission

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission lapses if development has not begun within a period of 3 years. Section 58(2) of that Act enables Scottish Ministers to direct that a longer period is allowed before planning permission lapses.

Scottish Ministers consider that due to anticipated delays to construction timescales as a consequence of the Covid 19 pandemic in addition to the normal constraints, scale and complexity of constructing such developments and the timeframes associated with the commissioning of grid infrastructure to connect them, a 6 year time scale for the commencement of development is appropriate in this case.

Scottish Ministers Determination

Subject to the conditions set out in Part 1 of Annex 2, Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for construction and operation of the High Constellation Wind Farm electricity generating station in the Argyll and Bute Council area (as described in Annex 1).

Subject to the conditions set out in Part 2 of Annex 2, Scottish Ministers direct under section 57(2) of the Town and Country Planning (Scotland) act 1997 that **planning permission be deemed to be granted** in respect of the development described in Annex 1.

The consent hereby granted will last for a period of 30 years from the earlier of: i) the date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or ii) the date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted.

As a consequence of the potential delays the Covid 19 pandemic may have on predicted construction timescales the Scottish Ministers consider it is reasonable to add an additional year to typical timescales. The Scottish Ministers therefore direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction if there has been no development within that period.”

In accordance with the EIA Regulations, the Company must publicise this determination on a website maintained for the purpose of making information publicly available and in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

Copies of this letter and the consent have been sent to the Planning Authority. This letter has also been published on the Scottish Government Energy Consents website www.energyconsents.scot

The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine Applications for consent. The rules relating to the judicial review process can be found on the website of the Scottish Courts –

<https://scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=20>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely

[Redacted]



Head of Energy Consents

For and on behalf of the Scottish Ministers

A member of the staff of the Scottish Government

Description of Development

The Development comprises a wind powered electricity generating station by the name of High Constellation Wind Farm, with a generating capacity exceeding 50 MW, located approximately 4 kilometres southeast of Clachan, in the Argyll and Bute Council planning area as specified in the Application and accompanying Environmental Impact Assessment report submitted on 04 June 2019.

The components of the wind farm and related ancillary development will comprise:

- Ten turbines with a maximum tip height of 149.9 m and rotor diameters of up to 136 m;
- Associated foundations and crane hardstandings at each wind turbine location;
- Access tracks linking the turbine locations, comprising of a combination of new and upgraded tracks;
- Substation building incorporating electrical switchgear and wind farm control elements;
- Electricity storage facility consisting of containerised battery units;
- Temporary construction compound;
- Up to two borrow pits for aggregate extraction;
- Network of underground cabling;
- A permanent anemometry mast; and,
- Site access from existing junction off the A83

Part 1

The consent granted in accordance with section 36 of the Electricity Act 1989 is subject to the following conditions:

1. Duration of consent

Written confirmation of the Date of First Commissioning and of the Date of Final Commissioning shall be provided to the Scottish Ministers and to the Planning Authority no later than one calendar month after the occurrence of that date.

Reason: *To allow the Planning Authority and Scottish Ministers to calculate the date of expiry of the consent.*

2. Commencement of Development

(1) Development shall be commenced no later than six (6) years from the date of this consent, or such other period as the Scottish Ministers may hereafter direct in writing.

(2) Written confirmation of the intended date of Commencement of Development shall be provided to both the Planning Authority and the Scottish Ministers as soon as is practicable after deciding on such a date.

Reason: *To avoid uncertainty and ensure that consent is implemented within a reasonable period, and to allow the Planning Authority and the Scottish Ministers to monitor compliance with obligations attached to this consent and deemed planning permission as appropriate.*

3. Non-assignment of Consent

(1) This consent shall not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment, with or without conditions

(2) The Company shall notify the local Planning Authority in writing of the name of the assignee, principal named contact and contact details within fourteen days of the consent being assigned.

Reason: *To safeguard the obligations of the consent if transferred to another company.*

4. Serious Incident Reporting

In the event of any breach of health and safety, or breach of environmental obligations relating to the Development during the period of this consent, written notification of the nature and timing of the incident shall be submitted to the Scottish Ministers within twenty four hours of the incident occurring, with confirmation of remedial measures taken and/or to be taken to rectify the breach provided at that time, or as soon as

practicable thereafter.

Reason: *To keep the Scottish Ministers informed of any such incidents which may be in the public interest.*

Part 2

The planning permission deemed to be granted under section 57 of the Town and Country Planning (Scotland) Act 1997 for the Development described in Annex 1 is subject to the following conditions.

5. Implementation in accordance with approved plans and requirements of the section 36 consent

The Development shall be implemented in accordance with the details specified in the Application and accompanying Environmental Impact Assessment Report dated 04 June 2019. The Company and subsequent operators shall at all times construct and operate the Development hereby permitted in accordance with the mitigation measures identified in the Environmental Impact Assessment Report and shall not omit any mitigation measures within the Environmental Impact Assessment Report.

Reason: *To ensure that the Development is implemented in accordance with the approved details.*

6. Financial Guarantee

- (1) No development shall commence unless and until a bond or other form of financial guarantee as security in respect of the cost of performance of all decommissioning, restoration and aftercare obligations referred to in Condition 8 submitted to the Planning Authority by the Company has been agreed to in writing by the Planning Authority.
- (2) The value of the financial guarantee shall be agreed between the Company and the Planning Authority or, failing agreement, determined (on application by either party) by a suitably qualified independent professional as being sufficient to meet the costs of all decommissioning, restoration and aftercare obligations referred to in Condition 8.
- (3) The financial guarantee shall be maintained in favour of the Planning Authority from the Commencement of Development until the date of completion of all decommissioning, restoration and aftercare obligations referred to in Condition 8.
- (4) The value of the financial guarantee shall be reviewed by agreement between the Company and the Planning Authority or, failing agreement, determined (on application by either party) by a suitably qualified independent professional no less than every five years and increased or decreased to take account of any variation in costs of compliance with decommissioning, restoration and aftercare obligations and best practice prevailing at the time of each review. Following each review and at least 28 days prior to the expiry of the existing financial guarantee the Company shall submit for the written approval of the Planning Authority a replacement guarantee in favour of and in terms acceptable to the Planning Authority for the value agreed.

Reason: *To ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed*

planning permission in the event of default by the Company.

7. Redundant Wind Turbines

- (1) Unless otherwise agreed in writing by the Planning Authority, if one or more wind turbines fails to generate electricity for a continuous period of twelve months a scheme setting out how the relevant wind turbine(s) and associated infrastructure will be brought back into productive or will be removed from the site and the ground restored shall be submitted for the written approval of the Planning Authority no later than one month after the date of expiry of the twelve month period.
- (2) The approved scheme shall be implemented within six months of the date of its approval, to the satisfaction of the Planning Authority.

Reason: *To ensure that any redundant wind turbine is removed from site, in the interests of safety, amenity and environmental protection.*

8. Site Decommissioning, Restoration and Aftercare

- (1) The wind turbines, substation and battery storage compound shall be decommissioned and cease to generate electricity by no later than the date falling thirty (30) years from the Date of Final Commissioning. The total period for restoration of the Site in accordance with this condition shall not exceed three years from the date upon which the Development ceases to generate electricity without the prior written approval of the Scottish Ministers in consultation with the Planning Authority.
- (2) No development shall commence unless and until a draft decommissioning, restoration and aftercare strategy has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH and SEPA).
- (3) No later than 3 years prior to decommissioning of the Development, or the expiry of the section 36 consent (whichever is earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved draft decommissioning, restoration and aftercare strategy, shall be submitted for the written approval of the Planning Authority in consultation with SNH and SEPA. The detailed decommissioning, restoration and aftercare plan shall provide updated and detailed proposals, in accordance with relevant guidance at that time, for the removal of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions which shall include (but is not limited to):
 - a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases);
 - b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
 - c) a dust management plan;
 - d) details of measures to be taken to prevent loose or deleterious material

being deposited on the local road network, including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;

- e) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
- f) details of measures for soil storage and management;
- g) a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
- h) details of measures for sewage disposal and treatment;
- i) temporary site illumination;
- j) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays;
- k) a traffic management plan (“TMP”) which provides for the arrangements in respect of traffic associated with the decommissioning of the Development which mirrors the relevant provisions approved in the TMP for the construction of the Development;
- l) details of watercourse crossings; and
- m) a species protection plan based on surveys for protected species (including birds) carried out no longer than eighteen months prior to submission of the plan.

- (4) The Development shall be decommissioned, the site restored and aftercare undertaken in accordance with the approved plan, unless and until otherwise agreed in writing in advance with the Planning Authority (in consultation with SNH and SEPA).

Reason: *To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration of the site and in the interests of safety, amenity and environmental protection.*

9. Wind Turbine Locations and Micro-siting

- (1) All wind turbines, buildings, masts, areas of hardstanding and tracks shall be constructed in the locations shown on plan reference in Annex 4 save for the ability to vary without further recourse to the Planning Authority, the indicated position of any turbine, track, buildings or associated infrastructure by up to 50 metres.
- (2) Unless otherwise agreed with the Planning Authority in consultation with SNH and SEPA, any such micro-siting, permitted by part (1) of this condition, shall not encroach within a 50 metre buffer around all water bodies except in the vicinity of watercourse crossings.
- (3) Any such micro-siting shall be carried out under the supervision of the Ecological Clerk of Works (“ECoW”) required to be employed pursuant to Condition 29 of this permission and shall be informed by the outcome of the Peat Management Plan required pursuant to Condition 11 and shall avoid areas of deep peat.
- (4) No later than one month after the Date of Final Commissioning an updated site plan showing the final position of all wind turbines, buildings, masts, areas of hardstanding, tracks and associated infrastructure forming part of the Development

shall be submitted to the Planning Authority. The plan shall also specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW's approval (if applicable).

Reason: *For the avoidance of doubt and to take account of local ground conditions, for the protection of amenity.*

10. Construction and Environmental Management Plan

(1) No development shall commence unless and until a Construction and Environmental Management Plan ("CEMP") containing site specific details of all on-site construction works, post-construction reinstatement, drainage and mitigation, together with details of their timetabling, has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH, SEPA and Scottish Forestry). This will be in respect of (but is not limited to) the following:

- (a) Method statement and risk assessment for all construction;
- (b) A detailed Water Construction Environmental Management Plan ("WCEMP") as outlined at Appendix A9.1 of the EIA Report;
- (c) Pollution prevention plan and control method statement, including arrangements for the storage and management of oil and fuel on the site;
- (d) Dust management, including cleaning of the junction between the site access and the trunk road;
- (e) Arrangements for on-site delivery and storage of fuel and other chemicals;
- (f) Details of foul drainage arrangements;
- (g) Details of measures to ensure noise of vibration nuisance is acceptably controlled;
- (h) Details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning facilities, and measures to clean the site entrances and the adjacent local road network;
- (i) Site specific waste management plan (dealing with all aspects of waste produced during the construction period other than peat), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment;
- (j) Ecological monitoring over construction period including all necessary pre- construction surveys and a species protection plan to clearly identify measures to minimise risk to any protected mammal species during construction;
- (k) Details of the methods to be adopted to reduce the effects of noise occurring during the construction period to the lowest practicable level;
- (l) Post-construction restoration/reinstatement of the working areas;
- (m) Details of temporary site illumination;
- (n) Details of proposed watercourse crossings and engineering works in water environment vicinities;
- (o) A drainage management strategy, demonstrating how all surface and waste water arising during and after development is to be managed and prevented from polluting any watercourses or sources;
- (p) Details of proposed measures during cable installation to prevent the creation of drainage runs in cable trenches; and

(q) An operational plan for harvesting, restocking and establishment of forestry.

(2) The CEMP shall be adhered to throughout the construction and site restoration phases unless otherwise agreed in writing by the Planning Authority.

Reason: *To ensure that all construction operations are carried out in a manner that minimises their impact on road safety, amenity and the environment, and that the mitigation measures contained in the EIA Report accompanying the application, or as otherwise agreed in respect of SSSIs or other sensitive habitats, are fully implemented.*

11. Peat Management Plan

(1) No development shall commence until a detailed Peat Management Plan (“PMP”), addressing all areas to be disturbed by construction, has been submitted to and approved in writing by the Planning Authority in consultation with SEPA. The PMP shall include:

- (a) Further peat probing information in areas of new infrastructure;
- (b) Details of layout and management measures taken to reduce the volume of peat disturbance (including final expected volumes, depth and location of any peat disturbed);
- (c) Updated disturbance and re-use calculations within the site (breaking the peat down into acrotelmic and catotelmic), including a plan showing volumes, location and usage;
- (d) Details of any disposal of peat proposed, including volumes, detailed disposal proposals and details of how peat usage has been limited to undisturbed ground; and
- (e) Details of storage and handling of excavated peat, including a plan showing proposed storage areas.

(2) All works on site must be undertaken in accordance with the approved PMP unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *In the interests of ensuring the conservation of peat resources.*

12. Shadow Flicker

(1) No development shall commence unless and until a scheme for the avoidance or mitigation of any shadow flicker at residential properties situated at a distance which is the same as ten rotor diameters of any wind turbine forming part of the Development, which lawfully exist or for which planning permission has been granted at the date of the section 36 consent, has been submitted to, and approved in writing by, the Planning Authority.

(2) The approved mitigation scheme shall be implemented in full.

Reason: *To offset impacts of shadow flicker on residential and commercial property amenity.*

13. Bird Disturbance Management Plan

No construction works, vegetation clearance, tree felling, or decommissioning shall take place during the bird breeding season (April to July inclusive) unless and until a Bird Disturbance Management Plan (“BDMP”), has been submitted to, and approved in writing by, the Planning Authority. The BDMP shall include, but is not limited to, detailed consideration of noise and visual disturbance.

Reason: *To ensure that birds and their nests are not disturbed or displaced during the breeding season in the interest of protecting the biodiversity value of the site.*

14. Design of sub-station and battery storage compound

(1) No construction of the substation and battery storage facilities shall commence until final details of the external appearance, dimensions, and surface materials of the substation and battery storage buildings, associated compounds, security fencing, external lighting, parking areas and the likely visibility of the substation and battery storage building from the B842 have been submitted to and approved in writing by the Planning Authority in consultation with SNH, SEPA and North Ayrshire Council.

(2) The sub-station and battery storage compound (including associated infrastructure) shall be constructed in accordance with the approved details.

Reason: *To ensure that the environmental impacts of the sub-station and battery storage compound forming part of the Development conform to the impacts assessed in the Environmental Impact Assessment Report and in the interests of the visual amenity of the area.*

15. Design and operation of wind turbines

(1) No development shall commence unless and until full details of the wind turbines (including, but not limited to, the power rating and sound power levels, the size, type, external finish and colour which should be non-reflective pale grey semi-matt), any anemometry masts and all associated apparatus have been submitted to and approved in writing by the Planning Authority.

(2) The wind turbines shall be constructed and operated in accordance with the approved details and maintained in the approved colour, free from external rust, staining or discolouration, until such time as the Development is decommissioned.

(3) All wind turbine blades shall rotate in the same direction.

Reason: *To ensure that the environmental impacts of the turbines forming part of the Development conform to the impacts assessed in the Environmental Impact Assessment Report and in the interests of the visual amenity of the area.*

16. Water Quality and Fish Monitoring Programme

(1) No development shall commence until a Water Quality and Fish Monitoring Programme (“WQFMP”) has been submitted and approved by the Planning

Authority in consultation with Marine Scotland. The WQFMP must take account of the Scottish Government's Marine Scotland Science's response and must include:

- (a) A minimum of 12 months pre-construction water quality monitoring shall be carried out at locations to be agreed and set out in the WQFMP. Thereafter, water quality monitoring will continue during construction of the Development and for up to 12 months after the Date of Final Commissioning; and
 - (b) Mitigation measures detailed in the Environmental Impact Assessment Report.
- (2) Thereafter the WQFMP must be implemented in full and in accordance with the timescales set out in the plan. No changes to the WQFMP shall take place unless they are with prior written approval of the Planning Authority.

Reason: *To ensure compliance with all commitments made in the Environmental Impact Assessment Report.*

17. Aviation Safety

No development shall commence until the Company has provided the Planning Authority, Ministry of Defence, Defence Geographic Centre and NATS with the following information, and has provided evidence to the Planning Authority of having done so:

- (a) the date of the expected commencement of each stage of construction;
- (b) the height above ground level of the tallest structure forming part of the Development;
- (c) the maximum extension height of any construction equipment; and
- (d) the position of the turbines and masts in latitude and longitude.

Reason: *In the interests of aviation safety.*

18. Aviation Lighting

- (1) No wind turbine forming part of the Development shall be erected until the Company has submitted a scheme for aviation lighting for the Development to the Planning Authority for written approval. The scheme shall include details of Red Aviation Warning Lighting or infra-red aviation lighting to be applied. No lighting other than that described in the scheme may be applied at the site, other than as required for health and safety, unless otherwise agreed in advance and in writing by the Planning Authority.
- (2) No turbines shall be erected on site until the scheme has been approved in writing. The Development shall thereafter be operated fully in accordance with the approved scheme.

Reason: *In the interests of aviation safety.*

19. Traffic Management Plan

- (1) No development shall commence, including deliveries to the site, unless and until a Traffic Management Plan (“TMP”) has been submitted to, and approved in writing by, the Planning Authority and in consultation with Transport Scotland. The TMP shall include (but is not limited to):
 - (a) the proposed routing for all construction related traffic and any abnormal loads associated with the Development;
 - (b) the accommodation measures required including the removal of street furniture, junction widening and traffic management;
 - (c) details of materials, plant, equipment and labour required during the construction period; and
 - (d) details of any temporary diversions of access routes and associate signage.
- (2) The TMP shall detail that all vehicular traffic is to be from the A83 Tarbet – Campbeltown Trunk Road and that no construction traffic will use the B842 Claonaig – Southend Road.
- (3) The approved traffic management plan shall be implemented in full, unless and until otherwise agreed in advance in writing with the Planning Authority.

Reason: *To minimise interference and maintain the safety and free flow of traffic on the Trunk Road as a consequence of traffic moving to and from the development.*

20. Route Access Report

Prior to commencement of turbine component deliveries to site a Route Access Report including swept path analysis must be undertaken to ensure that exceptional loads can be transported through the trunk road network safely. The complete report shall detail any accommodation measures required including the temporary removal of street furniture, junction widening, traffic management etc. and show that the transportation will not have any detrimental effect on structures within the route path.

Reason: *To minimise interference and maintain the safety and free flow of traffic on the Trunk Road as a result of the traffic moving to and from the development*

21. Temporary Road Signage and Traffic Control Measures

During the delivery period of the wind turbine construction materials, any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised “QA traffic management consultant” to be approved by the Planning Authority in consultation with Transport Scotland before delivery commences.

Reason: *To ensure that the transportation will not have any detrimental effect on the road and structures along the road.*

22. Habitat Preparation Works

No development shall commence unless and until a programme of Habitat Preparation Works, detailing the extent and area of pre-construction felling activities has been submitted to, and approved in writing by the Planning Authority in consultation with Scottish Forestry. The approved Habitat Preparation Works shall thereafter be implemented in full.

Reason: *To ensure that all felling works are carried out at a time that provides mitigation measures contained in the EIA Report with regard to the bird breeding season*

23. Habitat Management Plan

- (1) No development, other than Habitat Preparation Works, shall commence unless and until a Habitat Management Plan (“HMP”) has been submitted to, and approved in writing by the Planning Authority in consultation with SNH, SEPA, RSPB and Scottish Forestry. The HMP shall include details outlined in Appendix A8.3 of the EIA report.
- (2) The HMP shall set out proposed habitat management of the site during the period of construction, operation, decommissioning, restoration and aftercare, and shall include mitigation measures for eagles, divers, peatland restoration and native woodland creation.
- (3) The HMP shall include provision for regular monitoring and review to be undertaken to consider whether amendments are needed to better meet the HMP objectives. In particular, the approved HMP shall be updated to reflect ground condition surveys undertaken following construction and prior to the Date of Final Commissioning and submitted for the written approval of the Planning Authority in consultation with SNH, SEPA, RSPB and Scottish Forestry.
- (4) The habitat restoration work outlined within the plan will be completed at least two growing seasons before the Commencement of Development.
- (5) The approved HMP under part (1) or amended HMP under part (3) shall be implemented in full throughout the life time of the Development, including decommissioning.

Reason: *In the interests of good land management and the protection of habitats.*

24. Habitat Management Group

No development shall commence unless and until a Habitat Management Group (“HMG”) is established to oversee the preparation and delivery of the HMP and to review and assess the results from ongoing monitoring. The HMG shall include a representative of the Planning Authority and a representative from the Trust managing the Estate on which the Development is located and shall have powers to make reasonable changes to the HMP necessary to deliver its agreed objectives.

Reason: *To safeguard environmental impacts, ecology, species and habitats and*

maintain effective planning control.

25. Post Construction Monitoring

No development shall commence unless and until an appropriate programme of post-construction monitoring of bird populations on the wind farm site and habitat monitoring on the area identified for mitigation under condition 23 is submitted to and approved in writing by the Planning Authority. The state of the habitat and the response of the various species to habitat and other management should be quantified, assessed and reported to a HMG at regular intervals.

Reason: *To ensure the predicted impacts on important bird populations and success of proposed mitigation, as outlined in the EIA Report can be monitored.*

26. Groundwater Dependant Terrestrial Ecosystem Protection Plan

(1) No development shall commence unless and until a Groundwater Dependant Terrestrial Ecosystem (GWDTE) protection plan has been submitted to, and approved in writing by the Planning Authority in consultation with SEPA. The GWDTE protection plan shall include (but is not limited to):

- (a) Details of the location of Turbine 4 (and associated infrastructure) showing at least a 10 metre buffer between any excavation works and M23a/ M6b (March/ Marshy Greenland habitat) as shown on Figure 7.3d of the EIA Report; and,
- (b) Details of at least a 10 metre buffer between any excavation works for infrastructure outlined within the laydown area shown on Figure 7.3e of the EIA Report and M6d (Acid/ Neutral Flush Habitat).

(2) Habitat areas referenced above should be physically marked on site to ensure it is easily avoidable. Any required micro-siting shall be employed pursuant to Condition 9 of this permission.

Reason: *To minimise impacts on unavoidable GWDTE and to avoid impacts on other more ecologically important GWDTE.*

27. Construction Hours

(1) Construction work which is audible from any noise-sensitive receptor shall only take place on the site between the hours of 07:30 to 19:00 on Monday to Friday inclusive and 08:00 to 16:00 on Saturdays, with no construction work taking place on a Sunday or on a Bank Holiday or Public Holiday. Outwith these specified hours, development on the site shall be limited to turbine delivery and erection, commissioning, maintenance, dust suppression, and pouring of concrete foundations (provided that the developer retrospectively notifies the Planning Authority of the works within 24 hours if prior notification is not possible). In addition, access for security reasons, emergency responses or to effect any necessary environmental controls is permitted outwith these hours.

(2) Movements of heavy goods vehicles (HGVs) to and from the site during construction of the Development shall be limited to 07:00 hours to 19:00 hours

Monday to Friday and 08:00 to 16:00 hours on Saturdays and no vehicular access during these periods shall take place on Sundays or Bank Holidays, unless previously approved in writing by the Planning Authority.

Reason: *In the interests of local amenity.*

28. Planning Monitoring Officer

- (1) No development shall commence unless and until the terms of appointment by the Company of an independent and suitably qualified environmental consultant as Planning Monitoring Officer (“PMO”) have been submitted to, and approved in writing by, the Planning Authority. The terms of appointment shall:
 - (a) impose a duty to monitor compliance with the terms of the deemed planning permission and the conditions attached to it;
 - (b) require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (c) require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to it at the earliest practical opportunity.
- (2) The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

Reason: *To enable the Development to be suitably monitored to ensure compliance with the planning permission and the conditions attached to it.*

29. Ecological Clerk of Works

- (1) No development shall commence until the Planning Authority has approved in writing the terms of appointment by the Company of an independent Ecological Clerk of Works (ECoW) in consultation with SNH and SEPA. The terms of appointment shall;
 - (a) Impose a duty to monitor compliance with the ecological and hydrological commitments provided in the EIA Report and other information lodged in support of the application, the Construction and Environmental Management Plan, and other plans;
 - (b) Require the EcoW to report to the Company’s nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
 - (c) Require the ECoW to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (d) Require the ECoW to report to the Planning Authority any serious environmental incidences resulting as a consequence of non-compliance with the ECoW Works at the earliest practical opportunity.
- (2) The EcoW shall be appointed on the approved terms throughout the period from the Commencement of Development, throughout any period of construction activity and during any period of post construction restoration works approved in terms of conditions 8.

Reason: *To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development during the decommissioning, restoration and aftercare phases.*

30. Environmental Clerk of Works Decommissioning

No later than 12 months prior to the decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier), the Company shall submit details of the terms of appointment by the Company of an independent ECoW throughout the decommissioning, restoration and aftercare phases of the Development to the Planning Authority for approval in consultation with SNH and SEPA. The ECoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the Development.

Reason: *To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development.*

31. Forestry – Compensatory Planting

- (1) No development shall commence until a Woodland Replanting Scheme has been submitted to, and approved by the Planning Authority in consultation with Scottish Ministers.
- (2) The Woodland Planting Scheme shall provide for the replanting of 31.73 hectares of woodland, or such other amount as may be agreed with the Planning Authority in consultation with Scottish Ministers.
- (3) The approved Woodland Planting Scheme shall thereafter be implemented in full.

Reason: *To secure compensatory planting for the loss of woodland arising from the Development.*

32. Long Term Forest Plan

- (1) No development shall commence until a finalised Long Term Forest Plan for the Forestry Study Area (as shown on Figure 13.1 in Volume 2 of the EIA Report) has been submitted to and approved in writing by the Planning Authority in consultation with Scottish Ministers.
- (2) The approved Long Term Forest Plan shall thereafter be implemented in full [unless otherwise agreed in advance and in writing by the Planning Authority in consultation with Scottish Ministers.

Reason: *To ensure Forestry Works approved by the consent are carried out in accordance with UK Forestry Standard.*

33. Felling and Restocking Plan

- (1) No development shall commence unless and until a Felling and Restocking Plan is submitted and approved in writing by the Planning Authority in consultation with Scottish Ministers. The plan shall be in accordance with the “Wind Farm Felling

and Species Plan” as detailed in chapter 13 of the EIA Report and Figures 13.3 and 13.4.

- (2) The approved Felling and Restocking Plan shall be implemented in full [unless otherwise agreed in advance and in writing by the Planning Authority in consultation with Scottish Ministers.

Reason: *To ensure the consented felling and restocking of the woodland associated with the Forestry Works approved by the consent is carried out in accordance with UK Forestry Standard.*

34. Site Inspection Strategy

- (1) Prior to the Date of Final Commissioning, the Company must submit a draft Site Inspection Strategy (SIS), for the written approval of the Planning Authority. This shall set out details for the provision of site inspections and accompanying Site Inspection Reports (SIR) to be carried out at 25 years of operation from the Date of Final Commissioning. At least one month in advance of submitting the SIR, the scope of content shall be agreed with the Planning Authority. The SIR shall include, but not be limited to:

- (a) Requirements to demonstrate that the infrastructure of the Development is still fit for purpose and operating in accordance with conditions 14, 15 and condition 35; and

- (b) An engineering report which details the condition of tracks, turbine foundations and the wind turbine generators and sets out the requirements and the programme for the implementation for any remedial measures which may be required.

- (2) Thereafter the SIS and SIR shall be implemented in full unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *To ensure the condition of the infrastructure associated with the Development is compliant with the EIA report, condition 14, 15 and condition 35 and is to ensure the Development is being monitored at regular intervals throughout its operation.*

35. Noise

- (1) The rating level of noise immissions from the combined effects of the wind turbines hereby permitted (including the application of any tonal penalty) when determined in accordance with the attached Tables and Guidance Notes appended to this condition, shall not exceed 35 dB LA90,10mn at any dwelling which is lawfully existing or has planning permission at the date of this permission, and

- (a) Prior to the installation of any turbines the developer shall submit a report for approval by the Planning Authority which demonstrates compliance with the noise limits in the above condition. The report shall include details of any proposed noise reduction measures and shall be

prepared with reference to the Institute of Acoustics Good practice Guide to the Application of ETSU-R-97 and associated supplementary guidance notes.

- (b) The Company shall continuously log power production, wind speed and wind direction. These data shall be retained for a period of not less than 24 months. The Company shall provide this information to the Planning Authority within 14 days of receipt in writing of a request to do so.
- (c) Within 21 days from the receipt of a written request from the Planning Authority or following a complaint to the Planning Authority from the occupant of a dwelling, the wind turbine operator shall, at the wind turbine operator's expense, employ an independent consultant approved by the Planning Authority to assess the level of noise immissions from the wind turbines at the complainant's property in accordance with procedures to be agreed with the Planning Authority.
- (d) The wind turbine operator shall provide the Planning Authority the independent consultant's assessment and conclusions regarding the said noise complaint (referenced at part (c) above) including all calculations, audio recordings and raw data upon which those assessments and conclusions are based. Such information shall be provided within 2 months of the date of a written request from the Planning Authority, unless otherwise extended in writing by the Planning Authority. The wind turbine operator shall take such remedial action required to the satisfaction of the Planning Authority.
- (e) Where a further assessment of the rating level of noise immissions from the wind farm is required, the Company shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (c) above unless the time limit has been extended in writing by the Planning Authority.

Reason: *To minimise the adverse impact of noise generated by the operations on the local community.*

Guidance Notes for Operational Noise Condition

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

- a) Values of the LA90,10 minute noise statistic should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 2014 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.
- b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two- layer windshield or suitable equivalent approved in writing by the Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the Company shall submit for the written approval of the Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.
- c) The LA90,10 minute measurements should be synchronised with measurements of the 10- minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.
- d) To enable compliance with the conditions to be evaluated, the Company shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2.

All 10- minute periods shall commence on the hour and in 10- minute increments thereafter.

- e) Data provided to the Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.
- f) A data logging rain gauge shall be installed in the course of the measurement of the levels of noise immissions. The gauge shall record over successive 10- minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

- a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b)
- b) Valid data points are those measured in the conditions specified in the agreed procedures under paragraph (c) of the noise condition, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions, the independent consultant shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.
- c) For those data points considered valid in accordance with Guidance Note 2(b), values of the $L_{A90,10 \text{ minute}}$ noise measurements and corresponding values of the 10- minute standardised wind speed, as derived using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

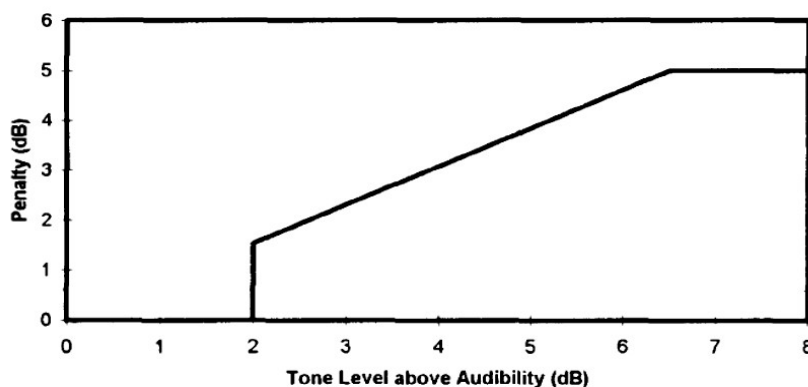
Guidance Note 3

- a) Where, in accordance with the agreed procedures under paragraph (c) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.
- b) For each 10 minute interval for which $L_{A90,10 \text{ minute}}$ data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be

performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

- c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.
- d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.
- e) A least squares “best fit” linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line at each integer wind speed. If there is no apparent trend with wind speed, then a simple arithmetic mean shall be used for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

The tonal penalty is derived from the average tone level above audibility according to the figure below:



Guidance Note 4

- a) If a tonal penalty is to be applied in accordance with Guidance Note 3, the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified in the procedures agreed under paragraph (c) of the noise condition.

- b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.
- c) In the event that the rating level is above the limit(s) set out in the Table attached to the noise conditions, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.
- d) The Company shall ensure that all necessary wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:
 - e) Repeating the steps in Guidance Note 2, with the required number of turbines shut down in accordance with Guidance note 4(d) in order to determine the background noise (L3) at each integer wind speed within the range in which the rating level is above the limit(s) according to Guidance Note 4(c) above.
 - f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

- g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.
- h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Table attached to the conditions then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Table attached to the conditions then the development fails to comply with the condition.

Definitions

“Commencement of Development” means the date on which Development shall be taken as begun in accordance with section 27 of the Town & Country Planning (Scotland) Act 1997 (as amended).

“the Company” means, High Constellation Windfarm Ltd, a company incorporated under the Companies Act with company number 11800500 and having its registered office at 10 West Street, Alderley Edge, Cheshire, SK9 7EG or such other person who from time to time may lawfully have the benefit of this consent.

“Date of First Commissioning” means the date on which electricity is first exported to the grid network on a commercial basis from any of the wind turbines forming part of the Development.

“Date of Final Commissioning” means the earlier of (i) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (ii) the date falling eighteen months from the date of First Commissioning.

“the Development” means the development as described in Annex 1 authorised by the section 36 consent and deemed planning permission.

“Planning Authority” means Argyll and Bute Council.

“SNH” means Scottish Natural Heritage.

“HES” means Historic Environment Scotland.

“SEPA” means the Scottish Environmental Protection Agency.

“Habitat Preparation Works” means (i) any preparatory works, surveys, investigations and reports required for the purpose of satisfying or discharging any pre-commencement obligations under the Planning Conditions (ii) alterations to tracks for the creation of access and temporary storage to facilitate felling and (iii) the provision of temporary contractors’ facilities within the site that are necessary for the aforementioned (i) and (ii) above.

“Public Holiday” means;

New Year's Day, if it is not a Sunday or, if it is a Sunday, 3rd January. 2nd

January, if it is not a Sunday or, if it is a Sunday, 3rd January.

Good Friday.

Easter Monday.

The first Monday in May. The

first Monday in August.

The third Monday in September.

30th November, if it is not a Saturday or Sunday or, if it is a Saturday or Sunday, the first Monday following that day.

Christmas Day, if it is not a Sunday or, if it is a Sunday, 27th December.

Boxing Day, if it is not a Sunday or, if it is a Sunday, 27th December.



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[REDACTED]
EDF Energy Renewables Limited
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144 Morrison Street
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EH3 8EX

18 December 2020

Dear [REDACTED]

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF TROSTON LOCH WIND FARM WITHIN THE PLANNING AUTHORITY AREA OF DUMFRIES AND GALLOWAY COUNCIL

Application

I refer to the application made on 21 February 2019 under section 36 of the Electricity Act 1989 (“the Electricity Act”) made by EDF Energy Renewables Limited, a company incorporated under the Companies Acts with company number 06456689, and having its registered office at Alexander House, 1 Mandairn Road, Rainton Bridge Business Park, Houghton Le Spring, Sunderland, DH4 5RA for the construction and operation of Troston Loch Wind Farm, an electricity generating station comprising 14 wind turbines with a maximum blade tip height of 149.9 metres and battery storage facility (“the proposed Development”).

The proposed Development is located approximately 7km to the west of Moniaive, in the Dumfries and Galloway Council area with a total generating capacity in excess of 50 Mega Watts (MW).

This letter contains the Scottish Ministers’ decision to grant section 36 consent for the proposed Development as described at Annex 1.

Planning Permission

In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 the Scottish Ministers, may on granting consent under section 36 of the Electricity Act for the construction and operation of a generating station direct that planning permission be deemed to be granted in respect of that generating station and any ancillary development.

This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.

Background

The proposed Development is sited approximately 7km to the west of Moniaive, 8km north-west of St John's Town of Dalry and 11 km east of Carsphairn in Dumfries and Galloway. It is within the central concentrated cluster of wind farm proposals including Wether Hill (operational), Glenshimmeroch (consented), Knockman Hill (consented), Cornharrow (application) and Shepherd's Rig (application). Located within the Stroan unit of the Foothills with Forest Landscape Character Type (LCT), the proposed Development is located along a lower ridge of hills that includes Troston Hill and Lochlee Hill and slopes down toward the Black Water Valley within the south of the development envelope. It is adjacent to the Ken unit of the Southern Uplands with Forest LCT.

The site of the proposed Development predominantly comprises of commercial coniferous plantation. There are no designated sites within or immediately surrounding the proposed Development. Within the surrounding area, Thornhill Uplands Regional Scenic Area (RSA) is 1.5 km east; Cleugh Site of Special Scientific Interest (SSSI) 5.7 km west; Stenhouse Wood SSSI 9 km east and Upper Nithsdale Wood Special Area of Conservation (SAC) 9 km east.

The proposed Development comprises of 14 wind turbines with a ground to blade tip height not exceeding 149.9 metres with an installed capacity of around 67.2 MW, and a battery storage facility. The battery storage facility will comprise of a unit within the substation of 30 metres x 20 metres. It is estimated that, based on current technology, the battery storage facilities will be capable of generating around 20 MWh.

Following the consultation when the application was submitted, Historic Environment Scotland and NatureScot raised concerns relating to impacts on a listed building and landscape and visual effects respectively. The Company revised the layout, relocating 5 turbines and this was submitted as Supplementary Environmental Information (SEI) dated 3 December 2019.

Legislation

Under Schedule 8 to the Electricity Act, and the Electricity (Applications for Consent) Regulations 1990 (“the Consents Regulations”) made under the Electricity Act, the relevant Planning Authority is required to be notified in respect of a section 36 consent application. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (“the EIA Regulations”) the Company submitted an Environmental Impact Assessment report (“the EIA report”) in support of the application describing the proposed Development and giving an analysis of its environmental effects.

In addition, to comply with the EIA Regulations, Scottish Ministers are required to consult the Planning Authority, as well as Scottish Natural Heritage, acting under its operating name NatureScot (now known as NatureScot), the Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES) as well as other persons that are likely to be concerned by the proposed Development by reason of their specific environmental responsibilities.

In accordance with requirements of both the Consents Regulations and the EIA Regulations, a notice of the proposed Development and SEI was published on the Company’s website and advertised in local and national press. The application was also placed in the public domain, and the opportunity given for those wishing to make representations to do so. Notifications were sent to Dumfries and Galloway Council as the relevant Planning Authority as well as to NatureScot, SEPA and HES.

Scottish Ministers have had regard to the matters set out in Schedule 9 of the Electricity Act in respect of the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

Scottish Ministers have given consideration to the extent to which the Company has demonstrated in the Application submitted that they have done what they reasonably can to mitigate any effect, which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites buildings or objects.

In accordance with section 36(5A) of the Electricity Act, before granting any section 36 consent Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to protection of the water environment; and
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

SEPA's advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the proposed Development subject to conditions which are included in Annex 2.

In their response to Scottish Ministers, they direct the Company to the Regulations section of the SEPA website for advice on regulatory requirements and good practice advice.

Scottish Ministers are satisfied that the EIA report and SEI has been produced in accordance with the EIA Regulations. Scottish Ministers have assessed the environmental impacts of the proposed Development and taken the environmental information, being the Application, EIA report, SEI, representations, consultation responses including those from NatureScot, SEPA, HES and Dumfries and Galloway Council (the Planning Authority) into consideration in reaching their decision.

Scottish Ministers consider that there is sufficient information to allow Ministers to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect, which the proposals would have on the natural beauty of the countryside, or any such flora, fauna, features, sites, buildings or objects.

Scottish Ministers are satisfied that the Company has avoided so far as possible, causing injury to fisheries or to stock of fish in any waters.

Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations and EIA Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the proposed Development.

Public Local Inquiry (PLI)

In accordance with paragraph 2(2) of Schedule 8 of the Electricity Act 1989, where the relevant Planning Authority objects to an application and the objection is not withdrawn the Scottish Ministers shall cause a PLI to be held. The Planning Authority did not object to the application.

Paragraph 3 of Schedule 8 to the Act provides that where objections or copies of objections have been sent to Scottish Ministers in pursuance of Regulations made under that paragraph, Scottish Ministers must consider those objections together with all other material considerations with a view to determining whether a public inquiry should be held with respect to the application and, if they think it appropriate to do so, they must cause a public inquiry to be held.

Scottish Ministers have considered the objections raised by Dalry Community Council and Glencairn Community Council, together with the 53 representation objections received. Taking the objections, all material considerations and other consultation responses into account, Scottish Ministers consider that there are no significant issues which have not been adequately considered in the EIA report, SEI and the consultation responses.

Scottish Ministers are satisfied there is sufficient information to be able to make an informed decision on the application and that it would not be appropriate to hold a public inquiry.

Consultation Responses

Dumfries & Galloway Council (the Planning Authority) raised no objection to the application. The Planning Authority assessed the application against the Dumfries and Galloway Local Development Plan 2 (LPD2) October 2019 and the Supplementary Guidance – Part 1 Wind Energy Development: Development Management Considerations and its Appendix Dumfries and Galloway Wind Farm Landscape Capacity Study (DGWLCS). The Planning Authority considers that the proposed Development is a relatively well sited and designed scheme, and is considered the best fit in terms of both landscape and the cumulative implications, and is consistent with the guidance contained in the DGWLCS.

The Planning Authority also consider the proposed Development would rarely be either the closest, or otherwise most prominent, scheme in itself, or in relation to important landscape features and views. The Planning Authority considered from views beyond 2 km there are no obvious situations where the proposed Development would give rise to landscape and visual effects which would be significant, regardless of the additional cumulative effects.

The effects of the proposed Development on the Galloway Forest Park, Merrick Wild Land Area and the Dark Sky Park were assessed by the Planning Authority and it was considered no significant effects would occur. Potential effects for a large number of settlements were also considered, none were assessed as having significant visual effects.

The Planning Authority consider the emerging wind farm pattern based on the committed baseline of cumulative developments which are operational and consented developments. On this basis, the Planning Authority consider significant effects are most likely to occur in the Carsphairn uplands to the north and north-west. On balance, the Planning Authority consider that the potential scale effects with smaller surrounding landscapes has been addressed, in part through mitigation measures and site redesign in the SEI.

Subject to the imposition of conditions, the Planning Authority consider the proposed Development accords with the relevant provisions of the LDP 2.

Scottish Environmental Protection Agency (SEPA) do not object to the proposed Development. SEPA originally objected as there was insufficient information in respect of the Private Water Supply Risk Assessment. After clarification from the company, SEPA removed their objection subject to a condition relating to the maintaining of hydrological connectivity where wetlands are crossed and the implementation of rigid pollution prevention measures. SEPA also requested further planning conditions for the submission of a Construction Environmental Management Plan.

SEPA refer the Company to best practice methods on the assessment of peat volumes, reuse of excavated peat and minimisations of waste and request as a condition a Peat Management Plan. Scottish Ministers have given consideration to SEPA's response and have imposed appropriately worded conditions (see Annex 2) to address these recommendations.

NatureScot do not object. NatureScot advised that the proposed Development appears to attain a reasonable landscape fit with fairly localised landscape and visual effects though raised concerns regarding the cumulative effects given the complex cumulative situation in the area. NatureScot originally stated significant effects arise from viewpoints 8 and 12, and recommended the removal of turbines T12, T13 and T14. The Company revised the layout to relocate turbines T10, T11, T12, T13, T14, and NatureScot advise the revised layout is an improvement and reduces some of the effects, particularly viewpoint 8 where only blade tips remain visible. NatureScot consider that from Viewpoint 12, near Moniaive, the proposed Development will be noticeable albeit less so than in the previous layout.

NatureScot advised this proposed Development will intensify cumulative landscape and visual effects when travelling around the area and from key hill tops and the Southern Upland Way. They raise concerns regarding the cumulative effects with this proposal and the other wind farm developments within a 10km radius. NatureScot consider the large number of existing and proposed developments has the potential to result in adverse effects in the local area and if Glenshimmeroch (now consented since their advice) or Margree was consented (original scheme withdrawn since their advice and new scheme at scoping), that there would be no capacity for this Development.

NatureScot are content with methods and assessment in relation to Ecology and Ornithology and consider that the proposed Development will not have any adverse impact on protected habitat or species subject to conditions.

Scottish Ministers have given consideration to NatureScot landscape and visual advice and this is assessed further below at page 13. NatureScot recommend that the proposed mitigation proposals are fully implemented and in particular the need for pre-construction surveys and assessments, the appointment of an Ecological Clerk of Works, and the production of an agreed Construction Environmental Management Plan. Appropriately worded conditions can be imposed (see Annex 2) to address their recommendations.

Historic Environmental Scotland (HES) do not object. HES originally objected due to the potential for significant adverse impacts on the setting of the Category A listed Craigdarroch House, in particular the visuals effects of turbines T12, T13 and T14.

The revised layout relocated these turbines to the south and west and HES welcomed the revised changes to the layout with T12 and T14 no longer visible in views of Craigdarroch House. HES note that there remains potential for impacts of views of Craigdarroch House from the principle avenue and entrance drive caused by the appearance of the blade tips of T13. The effects of the revised layout are of a level where HES withdrew their objection.

Marine Scotland Science (MSS) do not object. MSS recommend a hydrochemical, macroinvertebrate and fish population monitoring programme and a robust water quality monitoring. MSS welcome the proposed mitigation measures including: the consideration of fish requirements in the design of watercourse crossings; the adherence to the UK Forest and Water Guidelines, especially in regard to felling and the sensitivity of watercourses and fish populations; the 50m buffer zone between watercourses and construction activities; the reuse of existing access tracks; the use of floating roads where peat deposits exceed 1m in depth; a drainage management plan designed using SuDS principles; and the appointment of an Ecological Clerk of Works. Scottish Ministers have given consideration to MSS's response and have imposed appropriately worded conditions (see Annex 2) to address these recommendations.

Transport Scotland (TS) do not object. TS request an Abnormal Loads Routes Assessment (ALRA) which includes a swept path analysis of the A77(T) Bankfield Roundabout prior to the movement of any abnormal load. TS require to review the Traffic Management Plan together with the ALRA to minimise interference and maintain the safety and free flow of traffic on the Trunk Road. Scottish Ministers have attached conditions within Annex 2, which gives effect to Transport Scotland's recommendations.

Scottish Forestry (SF) are content with the approach to the proposed windfarm felling and restocking plan and the method of calculating compensatory planting. Scottish Ministers have attached a condition within Annex 2, which gives effect to Scottish Forestry's recommendations.

Scottish Water (SW) do not object and advice the proposed Development is sufficient distance from the intake of water.

Ironside Farrar advisors to Scottish Ministers on Peat Landslide and Hazard Risk Assessment (PLHRA). Ironside Farrar advised that following further information the revised PLHRA was considered to be sufficient.

Glasgow Prestwick Airport have no objection and are satisfied that the proposed Development will have no material impact on the provision of air traffic service.

NATS (En-Route) plc (NERL) do not object subject to conditions. An agreement has been entered into between NERL and EDF Energy Renewables Limited which defines the mitigation solution and sets out suitable planning conditions to be attached. Scottish Ministers have attached conditions within Annex 2, which gives effect to NERL's recommendations.

Glasgow Airport Limited (GAL) has advised the proposed Development is located outwith their consultation zone and have no comment to make.

Royal Society for Protection of Birds (RSPB) do not object and welcome the mitigation measures to reduce disturbance to black grouse during construction. RSPB would recommend that consideration is given to further design changes through micro-siting of the outer turbines to reduce the risk of displacement. Scottish Ministers have attached conditions within Annex 2, which gives effect to RSPB's recommendations.

Galloway Fisheries Trust (GFT) do not object subject to a condition that adequate monitoring is in place to cover pre, during and post construction phases in order to assess impacts on fish populations. Scottish Ministers have attached a condition within Annex 2, which gives effect to GFT's recommendations.

Nith Catchment Fisheries Trust objected due to insufficient information on the scope of the fisheries surveys. Scottish Ministers have considered the matters raised and attached a condition within Annex 2.

Dalry Community Council (DCC) raise concerns regarding the visual impact on the landscape particularly for tourists, as the Southern Upland Way is close to the site; the landscape and visual impacts including cumulative effects; and noise impacts for residents close to the proposed Development. DCC recommends compensatory planting for the felling on site and suggests it should include broadleaf to increase diversity in Dumfries and Galloway. DCC also raise concerns with the access route option 3 and strongly oppose to the route. Scottish Ministers have given consideration to DCC comments and these are assessed further below under 'The Scottish Ministers Considerations', and where appropriate have imposed conditions (see Annex 2).

Glencairn Community Council (GCC) object to the proposed Development due to visual impact and the cumulative visual effect. GCC advise the disparity in turbine size increases the visibility of the developments surrounding Moniaive making them more intrusive on the landscape. GCC raise concerns on the effects on landscape, environment, ecology, health, house prices and overall effects on the local communities. Scottish Ministers have given consideration to GCC comments and these are assessed further below under 'The Scottish Ministers' Considerations' and 'Representations'.

Carsphairn Community Council (CCC) objected to the proposed Development due to socio-economic impact on the local housing stock, recreation and tourism, cumulative environmental and landscape and visual impacts. CCC comments are considered under 'The Scottish Ministers Considerations' and 'Representations'.

The following consultees provided no objection BT, Defence Infrastructure Organisation, Joint Radio Company and Scotways. Crown Estates Scotland offered no comment.

The following consultees did not respond to the consultation: Balmaclellan Community Council, Civil Aviation Authority (CAA), British Horse Society, John Muir Trust, Mountaineering Scotland, Scottish Wildlife Trust and Visit Scotland.

Representations

The Scottish Ministers received 55 representations objecting to the proposed Development. The reasons for objecting included the following:

- Landscape and visual and cumulative visual impact;
- Turbine noise levels;
- Increased construction traffic noise;
- Impact on local access routes and cycle routes;
- Shadow flicker;
- Ornithology;
- Inadequate public consultation;
- Recreation and Tourism;
- Archaeological and Heritage Sites; and;
- House prices and Socio-economic impact on the local housing stock.

The landscape and visual impact of the proposed Development has been considered by Scottish Ministers. In doing so, Scottish Ministers have taken into account the Landscape and Visual Impact Assessment (LVIA) presented within the EIA report and SEI, and comments made by consultees including the Planning Authority, NatureScot and representations. Scottish Ministers consider landscape and visual matters further below under 'The Scottish Ministers' Considerations' at page 13.

Turbine noise near residential areas was raised by representations as a concern. Chapter 11 of the EIA report provides a noise impact assessment, which concludes that the noise impacts are satisfactory subject to a suitably worded deemed planning condition (as set out in Annex 2) being attached to the consent which ensures compliance within approved noise limits and is in accordance with ESTU-R-97 Guidance and Planning Advice Note1/2011: Planning and Noise.

In relation to the construction traffic noise concerns, Chapter 11 of the EIA report assesses the effects of construction traffic noise. The EIA states the infrastructure has been located as far as practicable from residential dwellings to minimise the effect of construction noise and there are no significant issues identified. It is considered by the Scottish Ministers that construction traffic noise can be satisfactorily addressed subject to a suitably worded deemed planning condition being attached (Annex 2) to the consent to ensure operations comply with the times agreed by the Planning Authority.

Representations raised concerns regarding impact of increased traffic on access routes, with possible overloading on the B729 road. The Planning Authority consider the proposed Development traffic would be temporary and not significant, and are satisfied with the measures to minimise traffic impacts on existing roads. The Planning Authority confirm the proposed access route to site is the preferred route requested by the representations. The Planning Authority also considered the impact on cycle routes and advised that any impacts can be adequately addressed within the Traffic Management Plan condition. Scottish Ministers agree and have attached a condition within Annex 2, which gives effect to the concerns raised regarding the impact of traffic from the proposed Development.

Another matter raised within representations was in relation to shadow flicker effects. In chapter 16 of EIA report the effect of shadow flicker has been assessed using the appropriate guidance and the effects are found not to be significant in terms of the EIA Regulations. The EIA report states if residential amenity at any property is found to be effected by shadow flicker as a result of the proposed Development mitigation measures will be implemented to reduce the effects entirely. On the basis of the EIA report Scottish Ministers are satisfied there are no significant effect as a result of shadow flicker as a result of the proposed Development.

Concerns regarding bird surveys and rare birds were identified by representations. In the Ornithological chapter 8 of the EIA report consideration to all species recorded during the baselines surveys at the proposed Development met the criteria set out in the NatureScot guidance 2018. NatureScot broadly agree with the conclusions in the EIA report that the proposed Development should not have significant ornithological impacts. Scottish Ministers consider that the impacts on birds have been assessed satisfactorily and the effects are acceptable subject to mitigation measures, and suitably worded deemed planning conditions being attached to the consent as set out in Annex 2.

The Pre-application Consultation Report sets out the range of communications and consultation activities that have been carried out by the Company to inform all interested parties of the proposed Development. The Company organised public consultation events where plans and details of the proposed Development were shown and provided opportunities to discuss issues with the project development team, and as such Scottish Ministers are satisfied the Company complied with Scottish Government policy guidance on community consultation.

Representations raised concerns that the setting of the Smittons bridge would be diminished during development and concerns over possible effects on the archaeological remains of the Stroanfreggan Hill Fort. Chapter 10, Heritage and Archaeology, of the EIA report, have fully assessed possible effects and anticipate no direct effects during construction and any indirect effect would be short term during the operational phase. The Planning Authority has addressed these concerns and whilst acknowledging there are significant adverse effects on historic environment assets these do not meet the threshold to refuse on historic environment grounds. It is proposed a programme of archaeological works is undertaken to mitigate direct effects with the Planning Authority Archaeologist and as such Scottish Ministers are satisfied these issues have been given due consideration.

Tourism impacts concerns were raised in respect of a decrease in tourists visiting the South Upland Way resulting in a decline in occupancy of holiday cottages. The Planning Authority has no concerns on this matter. Chapter 14 of the EIA assesses the effects on Tourism and concludes there will be no significant direct or indirect effects as a result of the Development both in isolation or cumulatively. Taking the EIA and consultation responses into account, the Scottish Ministers consider that there is no likely significant effect on these factors and are satisfied these concerns have been given due consideration.

Impact of house prices were also raised by representations, this matter is not a material planning consideration in the determination of the proposed Development.

Scottish Ministers are satisfied that the matters pertaining to representations have been appropriately assessed and taken into account in the determination of the proposed Development.

Scottish Government Policy Context

Climate Change and Renewable Energy Targets

The seriousness of climate change, its potential effects and the need to cut carbon dioxide emissions, remain a priority of Scottish Ministers. The Climate Change (Scotland) Act 2009, sets out the targets for reducing greenhouse gas emissions as an interim 42% reduction target for 2020 and an 80% reduction target for 2050. The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 (2019 Act) received Royal Assent on 31 October 2019 and sets a target for Scotland to be carbon-neutral, meaning net-zero CO₂, by 2045 at the latest. Additionally the 2019 Act sets out two interim targets to reduce emissions by 75% by 2030 and by 90% by 2040.

Scottish Energy Strategy and Onshore Wind Policy Statement

Scottish Energy Strategy (SES) and Onshore Wind Policy Statement (OWPS) were published in December 2017. SES sets out a vision for the future energy system in Scotland through to 2050 and sets out the priorities for an integrated system-wide approach that considers the use and supply of energy for heat, power and transport. The strategy provides a long-term vision to guide energy policy decisions to tackle the challenges of decarbonising heat and transport in order to meet Scotland's long-term energy and climate change targets. The OWPS reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development and capacity in locations across Scotland where it can be accommodated in appropriate locations.

National Planning Framework 3 (NPF3)

NPF3 June 2014 sets out the long term vision for the development of Scotland and is the spatial expression of the Scottish Government's Economic Strategy, that has a focus on supporting sustainable economic growth which respects the quality of the environment, place and life in Scotland and the transition to a low carbon economy. NPF3 sets out strategic outcomes aimed at supporting the vision – a successful, sustainable place, a low carbon place, a natural, resilient place and a connected place. It establishes the Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology. Amongst its wide-ranging policies, NPF3 sets out the need for a strategy to reduce reliance on fossil fuels and emphasises not just the challenges in embracing a renewable and low carbon economy while protecting and sustaining environmental assets but also the wider benefits that this will bring, especially in employment creation.

It sets out that onshore wind will continue to make a significant contribution to the diversification of energy supplies.

NPF3 together with Scottish Planning Policy further sets out what is expected of the planning system, including a spatial strategy for low carbon place where an 80% reduction in greenhouse gas emissions is achieved by 2050.

Scottish Planning Policy

The Scottish Government supports wind energy development in appropriate locations. Scottish Planning Policy (SPP) 2014 aligns itself with NPF3 and one of its policy principles states that there will be a presumption in favour of development that contributes to sustainable development.

SPP sets out that policies and decisions should be guided by certain principles giving due weight to net economic benefit; the contribution to renewable energy targets; supporting delivery of infrastructure, including energy, and; protecting natural heritage, including landscape and the wider environment. SPP also states that the planning system should support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity.

Scottish Ministers acknowledge that the proposed Development would result in some cumulative landscape and visual impacts, which are considered acceptable in the context of the benefits that the proposed Development will bring in terms of net economic benefit, contributing to renewable energy and climate change targets, while protecting the historical and natural environment. On balance, it is considered that the proposed Development contributes to sustainable development.

Local Development Plan

The Planning Authority assessed the proposed Development against their local development plan policies, which included:

- Dumfries and Galloway Local Development Plan 2 (adopted 3 October 2019)
- Dumfries and Galloway Supplementary Guidance – Part 1 Wind Energy Development: Development Management Considerations and its Appendix 'C' Dumfries & Galloway Wind Farm Landscape Capacity Study (February 2020) (DGWLCS)

The Dumfries and Galloway Local Development Plan 2 (LDP2) was adopted on 3 October 2019.

Supporting the LDP2 is the Dumfries and Galloway Supplementary Guidance – Part 1 Wind Energy Development: Development Management Considerations and its Appendix 'C' Dumfries & Galloway Wind Farm Landscape Capacity Study (February 2020) (DGWLCS).

The Planning Authority in their consultation response gives weight that the proposed Development is not lying within areas where LDP2 identifies as unacceptable and considers it complies with requirements set out in LPD2 and adopted Supplementary Guidance.

The Scottish Ministers Considerations

Main Determining Issues

Having considered the Application, the EIA report, SEI, responses from consultees, representations, and Scottish Government policies, Ministers consider that the main determining issues are:

- the environmental impacts of the proposed Development, in particular the landscape and visual impacts and their cumulative effects;
- the estimated economic and renewable energy benefits which the proposed Development is likely to bring; and;
- the extent to which the proposed Development accords with and is supported by Scottish Government policies.

Assessment of the Determining Issues

Landscape and Visual Impacts, including cumulative impacts

In consideration of the proposed Development, the Scottish Ministers have considered the Landscape and Visual Impact Assessment (LVIA) presented within the EIA report, SEI and comments made by consultees including the Planning Authority and NatureScot, and comments made in representations.

The LVIA identified the proposed Development would result in some significant landscape and visual effects, which is inevitable given the nature of this proposed Development. Taking into account consultation responses and representations, Scottish Ministers therefore considered the concerns raised.

NatureScot raised concerns there would be significant effects from turbines 12, 13 and 14. The revised layout relocated turbines 12, 13 and 14 and NatureScot noted this layout was an improvement and reduced some of the effects. The Planning Authority note whilst significant effects would result it represents the best fit in terms of landscape. It is noted by the Planning Authority and in the EIA report that from views beyond 2km there are no obvious situations where the proposed Development would give rise to significant landscape and visual effects. It was identified from site visit undertaken by officials that the proposed Development would not be the closest or most prominent wind farm development in itself or in the wider landscape and views.

The cumulative interactions of developments were raised by NatureScot as, the proposed Development visually bridges the gap between the substantial cluster and arc of development to the north, that would include Wether Hill (operational) to the east, to Shepherds' Rig (application) in the west, to the cluster in the south that would include Glenshimmeroch (consented) and Blackcraig (consented).

NatureScot consider the proposed Development has the potential to create an extensive wind farm landscape. Representations were also concerned with skyline being dominated by wind farms. The Planning Authority has assessed the cumulative effects of this proposal with operational, consented and proposals at application stage. It is noted that Wether Hill Extension and Margree wind farm proposals have been withdrawn and Longburn and Cornharrow wind farms were refused. The Planning Authority recognise that the proposal would contribute to the lateral spread of wind turbine development across the transitional foothill / upland landscapes to the east of the Glenkens. It is considered by the Planning Authority that the proposed Development would consolidate the committed loose cluster of more isolated schemes into a continuous band of development.

In conclusion the Planning Authority considers the proposed development a well sited and designed scheme; notes that proposed turbines are a reasonable fit to the landscape; the proposed turbines do not raise turbine scales issues; and the proposed Development would consolidate the existing pattern of development. In terms of strategic cumulative landscape effects the Planning Authority considers the proposal would not be at odds with the maintenance of a cohesive wind farm pattern as assessed against the criteria set out in their Local Development Plan policy.

Scottish Ministers acknowledge that the proposed Development would result in some significant landscape and visual impacts and cumulative effects. On this basis of the above considerations, Scottish Ministers agree with the Planning Authority and are content that any potentially problematic effects have been addressed through site redesign, and the landscape and visual effects and the cumulative effects are considered acceptable. It is also noted that the proposed Development is located within an area with potential for wind farm development set out within the Local Development Plan policy.

Economic Benefits

The transition to a low carbon economy is an opportunity for Scotland to take advantage of our natural resources to grow low carbon industries and create jobs.

The Company sets out in the EIA report and SEI that the proposed Development will result in a significant investment in Dumfries and Galloway and Scotland, and is expected to generate economic impacts during the development and construction phase.

The proposed Development is estimated to generate up to £41.7m to the UK economy during the construction phase. Of that £41.7m, £32.0m is expected to be spent within the wider region, Scotland, and £10.6m is expected to be spent within the Dumfries and Galloway area. During construction a temporary workforce of up to 60 people at any one time will be employed during the 18 month construction period. The operational expenditure per annum is expected to be in the region of £4m with 42% spent locally and 87% spent with the UK. Overall it is estimated that the construction and operational phases of the proposed Development will generate employment opportunities for approximately 9 full time equivalent (FTE) jobs.

The assessment within the EIA report sets out that there are no significant effects on socio-economics, recreation or tourism as a result of the proposed Development.

Whilst the overall net economic benefits are estimations of the effects of the proposed Development, Ministers are satisfied the proposed Development has the potential for significant positive net economic benefits both for the local community, Dumfries and Galloway and Scotland.

Scottish Government policy, renewable energy targets and carbon payback

Scotland's renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this proposed Development. NPF3, SPP, the Energy Strategy, and the Onshore Wind Policy Statement make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

Scottish Ministers note that this proposed development makes a considerable contribution towards meeting greenhouse gas emission and renewable electricity targets, as well as the diversification of energy supplies.

As previously set out, SPP contains guidance in respect of the granting of development consent for wind farm development. SPP is to be read and applied as a whole. It sets out overarching Principal Policies to be applied to all development and Subject Policies which set out guidance in respect of development management.

An overarching principle of SPP is that the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost. This means that decisions and policies should be guided by certain principles including, among others, giving due weight to net economic benefit; supporting the delivery of infrastructure; supporting climate change mitigation and protecting natural heritage. The aims of these policies require to be considered and balanced when reaching a decision on applications for wind energy development.

SPP advises that proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms where these are relevant. SPP identifies a number of considerations to be taken into account when determining energy infrastructure developments (set out at SPP paragraph 169) including but not limited to, landscape and visual, cumulative impact, net economic impact, and contribution to the renewable energy generation targets. The Planning Authority consider the proposed Development is in accordance with Spatial Framework.

Scottish Ministers are satisfied that the matters pertaining to SPP have been assessed in the application, EIA report, SEI and responses to the consultation by the Planning Authority, SEPA, NatureScot and other relevant bodies.

SES and OWPS sets out targets for the increase in the supply of renewable energy. The OWPS in particular reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development in locations across Scotland where it can be accommodated.

Scottish Ministers consider the proposal will make a contribution towards meeting greenhouse gas emission and renewable electricity targets with a generating capacity of approximately 67.2MW from the wind farm, and 20 MWh from the energy storage facility.

The carbon payback for the proposed Development has been presented in the EIA report using the approved carbon calculator. The estimated payback period for the proposed Development is 3 years compared to grid-mix electricity generation. In comparison to fossil fuel mix and coal-fired electricity generation the payback period of the proposed Development reduces to 1.7 years and 0.8 years respectively.

The potential savings in CO₂ emissions from the proposed Development, is expected to result in the production of approximately 158,941 MWh annually equating to 4,768,243 MWh over the 30 year operational lifetime of the proposed Development. This equates to displacing approximately 2,145,709 tonnes of fossil fuel mix generation equivalent CO₂ emissions.

Scottish Ministers are satisfied that the proposed Development would provide a contribution to renewable energy targets and carbon savings, and that these would be of an order that weighs in favour of the proposed Development. The Scottish Ministers are satisfied that the proposed Development will contribute to the Scottish Government's strategic priorities.

Conclusions

Reasoned Conclusions on the Environment

The Scottish Ministers are satisfied that the Environmental Impact Assessment Report and Supplementary Environmental Information has been produced in accordance with the EIA Regulations and that the procedures regarding publicity and consultation laid down in the those Regulations have been followed.

In accordance with paragraph 3 of Schedule 9 to the Electricity Act, the Scottish Ministers have had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. The Scottish Ministers must also avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

The Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

The Scottish Ministers have considered fully and carefully the Application, including the EIA, SEI consultation responses and all other material information and, are satisfied that the environmental impacts of the proposed Development have been assessed and have taken the environmental information into account when reaching their decision.

Scottish Ministers are satisfied having regard to current knowledge and methods of assessment, that this reasoned conclusion addresses the likely significant effects of the proposed Development on the environment. Ministers are satisfied that this reasoned conclusion is up to date.

Duration of planning permission

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission will lapse if development has not begun within a period of 3 years. Section 58(2) of that Act enables Ministers to direct that a longer period is allowed before planning permission will lapse.

Scottish Government consider that due to the constraints, scale and complexity of constructing such developments, a longer time scale for the commencement of development is appropriate in this case. A direction by Scottish Ministers under section 58(2) of the Town and Country Planning (Scotland) Act 1997 has therefore been made as part of the determination for this consent.

The Scottish Ministers' Determination

Subject to the conditions set out in **Annex 2 Part 1**, the Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for the construction and operation of the Troston Loch Wind Farm and Energy Storage Facility, in the Dumfries and Galloway area (as described in the application and at **Annex 1**).

Subject to the conditions set out in **Annex 2 Part 2**, the Scottish Ministers direct that **planning permission be deemed to be granted** under section 57(2) of the Town and Country Planning (Scotland) Act 1997 in respect of the Development described in the application and at **Annex 1**.

Section 36 consent and expiry of Planning Permission

The consent hereby granted will last for a period of 30 years from the earlier of:

- i) The date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or
- ii) The date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted.

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission lapses if development has not begun within a period of 3 years. Section 58(2) of that Act enables Ministers to direct that a longer period is allowed before planning permission lapses.

Scottish Ministers consider that because of the complexities of constructing a generating station of this scale, and the timescales associated with grid connection, a period of 5 years from the date of this direction, is typically appropriate.

As a consequence of the potential delays the Covid 19 pandemic may have on predicted construction timescales the Scottish Ministers consider it is reasonable to add an additional year to typical timescales. The Scottish Ministers therefore direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction if there has been no development within that period.

In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, the Company must publicise notice of this determination and how a copy of this decision letter may be inspected on the application website, in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

Copies of this letter have been sent to the public bodies consulted on the application including the Planning Authority, NatureScot, SEPA and Historic Environment Scotland. This letter has also been published on the Scottish Government Energy Consents website at <http://www.energyconsents.scot>

Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent. The rules relating to the judicial review process can be found on the website of the Scottish Courts:

<https://www.scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=12>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours faithfully

Redacted

A member of the staff of the Scottish Ministers

ANNEX 1

Description of the Development

The proposed Development comprises an electricity generating station known as Troston Loch including 14 turbines and energy storage facility with a generating capacity greater than 50MW, located approximately 7km to the west of Moniaive, in Dumfries and Galloway.

The components of the generating station and ancillary proposed Development comprise:

- Up to 14 wind turbines, each with a maximum tip height of 149.9 m and rotor diameter of up 133 m;
- Battery storage facility;
- Associated foundations and crane hardstandings at each wind turbine location;
- Access tracks linking the turbine locations comprising of a combination of new and upgraded tracks;
- Temporary construction compound;
- Up to two borrow pits for aggregate extraction;
- Network of underground cabling;
- Operational anemometry mast;
- Substation building; and
- Site access junction off the B729.

Annex 2
Part 1

Conditions Attached to Section 36 Consent

1. Notification of Date of First Commissioning

- (1) Written confirmation of the Date of First Commissioning and Date of Final Commissioning shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after that date.

Reason: *To allow the Planning Authority and Scottish Ministers to calculate the date of expiry of the consent.*

2. Commencement of Development

- (1) The Development shall be commenced no later than six years from the date of this consent, or such other period as the Scottish Ministers may direct in writing.

- (2) Written confirmation of the intended date of Commencement of Development shall be provided to the Scottish Ministers and the Planning Authority as soon as is practicable after deciding on such a date.

Reason: *To ensure that the consent is implemented within a reasonable period. And to allow the Planning Authority and Scottish Ministers to monitor compliance with obligations attached to this consent and deemed planning permission as appropriate.*

3. Non-assignment of Consent

- (1) This consent shall not be assigned without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment, with or without conditions.

- (2) The Company shall notify the Planning Authority and Scottish Ministers in writing of the name of the assignee, principal named contact and contact details within fourteen days of the consent being assigned.

Reason: *To safeguard the obligations of the consent if transferred to another company.*

4. Serious Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent written notification of the nature and timing of the incident shall be submitted to the Scottish Ministers within twenty-four hours of the incident occurring, including confirmation of remedial measures taken and/or to be taken to rectify the breach.

Reason: To keep the Scottish Ministers informed of any such incidents which may be in the public interest.

5. Aviation Radar

- (1) No turbine shall be erected until a Primary Radar Mitigation Scheme has been submitted to and approved in writing by the Scottish Ministers following consultation with the Operator.
- (2) No blades shall be fitted to any turbine until the technical mitigation measures set out in the approved Primary Radar Mitigation Scheme have been implemented in accordance with its terms and the Development shall thereafter be operated fully in accordance with such approved Primary Radar Mitigation Scheme.

For the purpose of condition 5 above;

"Operator" means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants P015 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act).

"Primary Radar Mitigation Scheme" or "Scheme" means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the Development on the surveillance infrastructure and air traffic management operations of the Operator.

Reason: To secure mitigation of impacts on the aerodrome navigations systems and radar station.

6. Storage Technology

- (1) No storage technology shall be constructed on the site unless and until details of the storage technology to be implemented have been submitted to and approved in writing by the Scottish Ministers.
- (2) Thereafter, once installed, the approved storage technology shall be implemented and maintained in accordance with the approved details, unless agreed in writing with the Scottish Ministers.
- (3) Written confirmation of when the Energy Storage Facility is installed and commissioned shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after those dates.
- (4) There shall be no further installation of any storage technology, unless and until details of the storage technology to be installed have been submitted to and approved in writing by the Scottish Ministers.

Reason: In the interests of protecting the environment.

Conditions Attached to Deemed Planning Permission

7. Implementation in accordance with approved plans and requirements of the section 36 consent

- (1) Except as otherwise required by the terms of the section 36 consent and deemed planning permission, the Development shall be undertaken in accordance with:
 - (a) EIA Report dated 21 February 2019 and Supplementary Environmental Information dated 3 December 2019.
 - (b) SEI Volume 2 Figure 1.1.

***Reason:** to ensure that the Development is carried out in accordance with the approved details.*

8. Design and operation of wind turbines

- (1) No Development shall commence unless and until full details of the proposed wind turbines (including, the power rating and sound power levels, the size, type, external finish and colour, any anemometry masts and all associated apparatus have been submitted to and approved in writing by the Planning Authority.
- (2) The wind turbines shall be consistent with the candidate wind turbine or range assessed in the EIA Report and Supplementary Environmental Information, and the tip height shall not exceed 149.9 metres above ground level.
- (3) The wind turbines shall be constructed and operated in accordance with the approved details and maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned.
- (4) All wind turbine blades shall rotate in the same direction.
- (5) All electricity and control cables between the turbines, substations and control buildings shall be laid out underground.

***Reason:** To ensure that the environmental impacts of the turbines forming part of the Development conform to the impacts assessed in the environmental statement and in the interests of the visual amenity of the area.*

9. Signage

No wind turbine, anemometer, power performance mast, switching station, transformer building or enclosure, ancillary building or above ground fixed plant shall display any name, logo, sign or advertisement (other than health and safety signage) unless and until otherwise approved in writing by the Planning Authority.

***Reason:** in the interests of the visual amenity of the area.*

10. Design of sub-station and ancillary development

- (1) No Development shall commence on the sub-station and battery storage facility unless and until final details of the external appearance, dimensions, and surface materials of the substation and battery storage building, associated compounds, construction compound boundary fencing, external lighting and parking areas have been submitted to, and approved in writing by, the Planning Authority.
- (2) The substation and battery storage building, associated compounds, fencing, external lighting and parking areas shall be constructed in accordance with the approved details.

Reason: *To ensure that the environmental impacts of the sub-station, battery storage and ancillary development forming part of the Development conform to the impacts assessed in the environmental statement and in the interests of the visual amenity of the area.*

11. Micro-siting

- (1) All wind turbines, buildings, masts, areas of hardstanding and tracks shall be constructed in the locations shown on plan reference SEI Figure 4.1 within the Supplementary Environmental Information. However, wind turbines, buildings, masts, areas of hardstanding and tracks may be adjusted by micro-siting within the redline boundary (approved in Annex 3 – site layout) but micro-siting is subject to the following restrictions;
 - (a) no wind turbine, building, mast, track or hardstanding shall be moved more than 50m from the position shown on plan reference SEI Figure 4.1;
 - (b) no micro-siting shall take place within areas of peat of greater depth than the original location;
 - (c) no micro-siting shall take place within areas hosting Ground Water Dependent Terrestrial Ecosystems;
 - (d) all micro-siting permissible under this condition shall be approved in advance in writing by the Ecological Clerk of Works (ECoW); and
 - (e) no wind turbine shall be sited less than 500 metres from a Black Grouse lek site. Where possible further design changes through micro-sitting should reduce the risk of displacement of birds.
- (2) No later than one month after the date of First Commissioning an updated site plan showing the final position of all wind turbines, buildings, masts, areas of hardstanding, tracks and associated infrastructure forming part of the Development shall be submitted to the Planning Authority. The plan shall also specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW or Planning Authority's approval, as applicable.
- (3) Any proposed micro-siting that does not meet the criteria set out in part (1) of this condition may be permitted with the prior written approval of the Planning Authority.

Reason: to control environmental impacts while taking account of local ground conditions.

12. Borrow Pits – Scheme of Works

No works to excavate a borrow pit shall commence unless the following borrow pit details have been submitted to and approved in writing by the Planning Authority:

- (a) precise location, extent and means of working;
- (b) proposed volume of material to be extracted;
- (c) storage of overburden;
- (d) assessment of the potential for air over pressure or ground vibration to disturb nearby buildings as a result of any aspect of use of the borrow pits, with proposals for mitigating any nuisance that might arise;
- (e) details of any need for blasting and, if proposed, a scheme for publicising the times and dates of any such blasting; and
- (f) a fully detailed restoration scheme with landscaping, planting and timescale information.

Thereafter, the excavation works shall be implemented in accordance with the approved details. Rock crushing will at all times be confined to inside the borrow pits.

Reason: To ensure that excavation of materials from the borrow pit(s) is carried out in a manner that minimises the impact on road safety, amenity and the environment, and to secure the restoration of borrow pit(s) at the end of the construction period.

13. Planning Monitoring Officer

- (1) No development shall commence unless and until the terms of appointment by the Company of an independent and suitably qualified environmental consultant as Planning Monitoring Officer (PMO) have been submitted to, and approved in writing by, the Planning Authority. The terms of appointment shall:
 - (a) impose a duty to monitor compliance with the terms of the deemed planning permission and the conditions attached to it;
 - (b) require the PMO to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (c) require the PMO to report to the Planning Authority any incidences of non-compliance with the terms of the deemed planning permission and conditions attached to it at the earliest practical opportunity.
- (2) The PMO shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works.

Reason: To enable the Development to be suitably monitored to ensure compliance with the planning permission and the conditions attached to it.

14. Ecological Clerk of Works

- (1) No Development shall commence unless and until the terms of appointment of a full time independent and suitably qualified Ecological Clerk of Works (ECoW) by the Company have been submitted to, and approved in writing by the Planning Authority (in consultation with SNH/NatureScot and SEPA). The terms of appointment shall:
 - (a) impose a duty to monitor compliance with the ecological and hydrological commitments provided in EIA Report and other information lodged in support of the application, the Construction and Environmental Management Plan (CEMP) approved under condition 15, and mitigation measures set out in the Schedule of Mitigations (Table 17.1 of the EIA report);
 - (b) require the ECoW to report to the nominated construction project manager any incidences of non-compliance with the CEMP and mitigation measures at the earliest practical opportunity;
 - (c) require the ECoW to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (d) require the ECoW to report to the Planning Authority any incidences of non-compliance with the CEMP and mitigation measures at the earliest practical opportunity.
- (2) The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development to completion of post construction restoration works (12 months after commissioning of the approved Development).
- (3) No later than eighteen months prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier), details of the terms of appointment of an ECoW by the Company throughout the decommissioning, restoration and aftercare phases of the Development shall be submitted for the written approval of the Planning Authority (in consultation with SNH/NatureScot and SEPA).
- (4) The ECoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the Development.

Reason: *To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development during the decommissioning, restoration and aftercare phases.*

15. Construction and Environmental Management Plan

- (1) No Development shall commence unless and until a Construction and Environment Management Plan (CEMP) has been submitted to and approved in writing by the Planning Authority (in consultation with NatureScot/HES, SEPA, the roads authority and the Council's Environmental Health Officer). The CEMP shall integrate 'best practice' methods for the Scottish / UK wind farm industry with the mitigation measures identified in the EIA report.

The CEMP shall include the following matters: -

- (a) Site Waste Management Plan;
- (b) a sustainable drainage system (SuDS) design concept including run-off and sediment control measures; and flood risk management;
- (c) details of foul drainage arrangements;
- (d) details of proposed temporary site compound for storage of materials, machinery, and designated car parking;
- (e) pollution prevention plan (PPP);
- (f) environmental management plan (EMP);
- (g) details of ecological monitoring to be implemented over the construction period including all necessary pre-construction surveys as detailed in the Ecological Protection Plan (EPP);
- (h) details of any tree felling, felling waste and replacement planting;
- (i) details of on-site storage of materials, including fuel and other chemicals;
- (j) details of on-site storage and off-site disposal of excavated material;
- (k) details and timetable for phasing of construction works;
- (l) details of turning arrangements for vehicles on site; (n) cleaning of site entrance, site tracks and the adjacent public road and the sheeting of all HGVs taking spoil or construction materials to/from the site to prevent spillage or deposit of any materials on the public road,
- (m) details of all internal access tracks, including accesses from the public road and hardstanding areas.
- (n) details and timetable for post construction restoration and/or reinstatement of the working areas and any other temporary works (including those carried out within the public road boundary);
- (o) details of the management of noise and vibration during construction;
- (p) the height and location of all stockpiles of aggregate; and
- (q) a Groundwater Dependant Terrestrial Ecosystem (GWDTE) protection plan.

Thereafter, the construction of the development shall be carried out in complete accordance with the approved CEMP, unless otherwise agreed in writing with the Planning Authority.

Reason: *To ensure that all construction operations are carried out in a manner that minimises their impact on road safety, amenity and the environment, and that the mitigation measures contained in the Environmental Statement/EIA Report accompanying the application, or as otherwise agreed, are fully implemented.*

16. Ecological Survey & Monitoring

- (1) Pre-construction surveys for protected species (including bats) will be undertaken to provide up-to-date information about the distribution and abundance of the protected species identified in the EIA Report baseline. The results of the surveys will inform the development of the Ecological Protection Plan (EPP) which will include details of good practise measures to be implemented and any species licencing requirements. These surveys will include;
 - (a) Protected species surveys for otter, as well as badger and red squirrel will be carried out within 12 months of construction commencement, in accordance with NatureScot guidelines and;
 - (b) Pre-construction bat roost inspection and activity survey at any roost identified within Chapter 7 -Ecology of the EIA Report will be carried out in accordance with Bat Conservation Trust and NatureScot Guidelines within 12 months of construction commencement.

- (2) A Fisheries Monitoring Plan (FMP) will be produced based on the baseline electrofishing sampling sites detailed in Chapter 7 – Ecology of the EIA Report, and one additional control site. The suggested monitoring schedule shall cover the construction phase and the first two years following completion. The plan will include the following two elements:
 - (a) Fish fauna – annual summer survey during construction and in the first two years after completion; and;
 - (b) Aquatic invertebrates – annual spring/summer survey during construction and in the first two years after completion.

Reason: *To help safeguard protected and sensitive species, and to ensure compliance with all commitments made in the Environmental Impact Assessment Report, and via post submission consultation with the Galloway Fisheries Trust (28 (2) only).*

17. Peat Management Plan

- (1) No development shall commence unless and until a detailed Peat Management Plan, addressing all areas to be disturbed by construction, has been submitted to and approved in writing by the Planning Authority in consultation with SEPA. This shall include:
 - (a) Further peat probing information in areas of new infrastructure;
 - (b) Details of layout and management measures taken to reduce the volume of peat disturbance (including final expected volumes, depth and location of any peat disturbed);
 - (c) Updated disturbance and re-use calculations within the site (breaking the peat down into acrotelmic and catotelmic), including a plan showing volumes, location and usage;

- (d) Details of any disposal of peat proposed, including volumes, detailed disposal proposals and details of how peat usage has been limited to undisturbed ground; and;
 - (e) Details of storage and handling of excavated peat, including a plan showing proposed storage areas.
- (2) All works on site must be undertaken in accordance with the approved Peat Management Plan unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *In the interests of ensuring the conservation of peat resources.*

18. Construction Hours

- (1) Construction work which is audible from any noise-sensitive receptor shall only take place on the site between the hours of 07.00 to 19.00 on Monday to Friday inclusive and 07.00 to 13.00 on Saturdays, with no construction work taking place on a Sunday or Public Holiday. Outwith these specified hours, development on the site is to be limited to wind turbine erection, maintenance, pouring of concrete, emergency works, dust suppression, and the testing of plant and equipment (unless otherwise approved in advance in writing by the Planning Authority). In addition, access for security reasons, emergency responses or to effect any necessary environmental controls is permitted outwith these hours.
- (2) HGV movements to and from the site (excluding abnormal loads) during construction of the wind farm shall be limited to 07.00 to 19.00 Monday to Friday, and 07.00 to 16.00 on Saturdays, with no HGV movements to or from site taking place on a Sunday or Public Holiday.

Reason: *In the interests of local amenity.*

19. Traffic Management Plan

- (1) No development shall commence unless and until a Traffic Management Plan (TMP) has been submitted to and approved in writing by Planning Authority, in consultation with the roads authority. The TMP shall include details of:
- (a) construction vehicle routeing, management of contractors and sub-contractors;
 - (b) vehicle numbers, signing and lining arrangements;
 - (c) arrangements for emergency vehicle access;
 - (d) measures to minimise traffic impacts on existing road users; and
 - (e) measures to accommodate pedestrians and cyclists and a nominated road safety person.

Thereafter, the development shall be carried out in full accordance with the approved TMP, unless agreed otherwise in writing with the Planning Authority.

Reason: *In the interest of road safety.*

20. Abnormal Load Route Assessment

- (1) No development shall commence unless and until an Abnormal Load Route Assessment in respect of abnormal loads has been submitted to and agreed in writing with the Planning Authority (in consultation with the roads authorities). The said report shall incorporate results of a test run of the abnormal load route, in conjunction with the roads authority and the Police, with a component delivery vehicle in order to identify areas that may require upgrading to accommodate the delivery vehicles. The report shall set out the detail for any upgrading works required.

The development shall be carried out in full accordance with the report and plans as may be approved unless otherwise agreed in writing with the Planning Authority.

Thereafter, any works identified within the said report shall be completed to the satisfaction of the Planning Authority prior to any Abnormal Loads taking place, unless otherwise agreed in writing with the Planning Authority

- (2) That during the delivery period of the wind farm construction materials, any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised Quality Assured traffic management consultant to be approved in writing by the Planning Authority (in consultation with the relevant roads authority) before delivery commences.

Reason: In the interest of road safety and to ensure that abnormal loads access the site in a safe manner.

21. Traffic and Transportation

- (1) No development shall commence unless and until a transport report in respect of construction loads has been submitted to and agreed in writing with the Planning Authority (in consultation with the roads authorities). The said report shall incorporate details of a programme of off-site accommodation works to include passing places, road widening, verge strengthening, associated works identified (if applicable) and restoration proposals (if applicable).

The development shall be carried out in full accordance with the report and plans as may be approved unless otherwise agreed in writing with the Planning Authority.

Thereafter, any works identified within the said transport report shall be completed to the satisfaction of the Planning Authority prior to any construction traffic taking place, unless otherwise agreed in writing with the Planning Authority.

- (2) That during the delivery period of the wind farm construction materials, any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised Quality Assured traffic management consultant to be approved in writing by the Planning Authority (in consultation with the relevant roads authority) before delivery commences.

Reason: *In the interest of road safety and to ensure that construction traffic access the site in a safe manner.*

22. Site Access

No Development shall commence unless and until the design and layout of site accesses have been submitted to and approved in writing with the Planning Authority (in consultation with the relevant roads authority). No construction work shall take place unless the said accesses have been formed as so approved.

Reason: *In the interests of road safety.*

23. Roads Post Construction work

No Development shall commence unless and until a scheme of the extent and detail of 'post construction' carriageway, verge and public road boundary restoration works within the public road boundary have been submitted to and approved in writing with the Planning Authority (in consultation with the relevant roads authority).

Reason: *In the interests of road safety.*

24. Roads Post Construction work – compliance

That within 3 months of the completion of construction work hereby granted, the works approved in respect of Condition 23 above shall be fully implemented to the satisfaction of the Planning Authority (in consultation with the relevant roads authority).

Reason: *In the interests of road safety.*

25. Water Quality Monitoring Programme

- (1) No development shall commence until a Water Quality Monitoring Programme ("WQMP") has been submitted and approved by the Planning Authority in consultation with Marine Scotland. The WQMP must take account of the Scottish Government's Marine Scotland Science's response and must include:
- (a) A water quality monitoring programme which should be carried out at least 12 months prior to construction and taking place during construction and for up to 12 months, after construction is complete, subject to survey results and in agreement with the Planning Authority

and Marine Scotland Science); and
(b) Mitigation measures detailed in the Environmental Impact Assessment Report.

- (2) Thereafter the WQMP must be implemented in full and in accordance with the timescales set out in the plan. No changes to the WQFMP shall take place unless they are with prior written approval of the Planning Authority.

***Reason:** To ensure compliance with all commitments made in the Environmental Impact Assessment Report.*

26. Programme of Archaeological Works

No development shall commence unless and until the Company has secured a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved in writing by the Planning Authority (in consultation with the Council Archaeologist). Thereafter, the Company shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority.

***Reason:** To ensure the protection or recording of archaeological features on the site.*

27. Forestry

- (1) There is to be no Commencement of the Development until a woodland planting scheme to compensate for the removal of 60.2 hectares of existing woodland ("the Replanting Scheme") has been submitted for the written approval of the Planning Authority in consultation with the Scottish Ministers.

- (2) The approved Replanting Scheme shall thereafter be implemented in full.

***Reason:** To secure replanting to mitigate against effects of deforestation arising from the Development.*

28. Private Water Supplies

- (1) No development shall commence unless and until a method statement and monitoring plan in respect of a Private Water Supply at Troston Estate Office has been submitted to, and approved in writing by, the Planning Authority.
- (2) This must detail all mitigation measures to be taken to secure the quality, quantity and continuity of water supplies to the Troston Estate Office.
- (3) The method statement shall include water quality sampling methods and shall specify abstraction points.

- (4) Unless and until otherwise agreed in advance in writing with the Planning Authority, the approved method statement and monitoring plan shall be implemented in full.
- (5) Monitoring results shall be submitted to the Planning Authority on request during the approved programme of monitoring.

Reason: *To maintain a secure and adequate quality water supply to all properties with private water supplies this may be affected by the Development.*

29. Redundant Wind turbines

If any wind turbine(s) fails to produce an electricity supply to the grid for a continuous period of 12 months then, unless otherwise agreed in writing by the Planning Authority, the wind turbine and any associated above ground infrastructure solely required for that turbine(s), together with turbine foundations to a depth of 1 metre below ground level shall be dismantled and removed from the site and the area around the turbine restored in accordance with a scheme to be submitted to and approved in writing by the Planning Authority. The scheme shall be submitted to the Planning Authority within 3 months of the expiry of the 12 month period and shall include a timetable for its implementation.

Reason: *To ensure that any redundant wind turbine is removed from Site, in the interests of safety, amenity and environmental protection.*

30. Aviation Safety

- (1) No development shall commence unless and until the Planning Authority, Ministry of Defence, Defence Geographic Centre and NATS have been provided with the following information, and evidence has been provided to the Planning Authority that this has been done:
 - (a) precise location of development;
 - (b) date of commencement of construction;
 - (c) date of completion of construction;
 - (d) the height above ground level of the tallest structure;
 - (e) the maximum extension height of any construction equipment; and
 - (f) details of aviation warning lighting fitted to the structure(s).
- (2) The final constructed position of the turbines will be intimated to the MOD within 1 month of completion of construction of the site.

Reason: *In the interests of aviation safety.*

31. Site Decommissioning, Restoration and Aftercare

- (1) The Development shall cease to generate electricity by no later than the date falling 30 years from the Date of Final Commissioning. The total period for decommissioning and restoration of the Site in accordance with this condition shall not exceed three years from the date from which the Development ceases

to generate electricity without the prior written approval of the Scottish Ministers in consultation with the Planning Authority.

- (2) No development shall commence unless and until a decommissioning, restoration and aftercare strategy has been submitted to, and approved in writing by, the Planning Authority (in consultation with SNH/NatureScot and SEPA).

The strategy shall outline measures for the decommissioning of the Development and restoration and aftercare of the site, and shall include without limitation, proposals for the removal of the above ground elements of the development, the treatment of ground surfaces, the management and timing of the works, and environmental management provision.

- (3) No later than three years prior to decommissioning of the Development or the expiry of the section 36 consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare plan, based upon the principles of the approved decommissioning, restoration and aftercare strategy, shall be submitted for the written approval of the Planning Authority in consultation with SNH/NatureScot and SEPA.

The detailed decommissioning, restoration and aftercare plan shall provide updated and detailed proposals, in accordance with relevant guidance at that time, for the removal of the Development. The detailed proposals for removal of above ground elements of the development, the treatment of ground surfaces, the management and timing of the works and environment management provisions.

- (4) The Development shall be decommissioned, the site restored and aftercare undertaken in accordance with the approved plan, unless and until otherwise agreed in writing in advance with the Planning Authority (in consultation with SNH/NatureScot and SEPA).

Reason: *To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.*

32. Financial Guarantee

Development shall not commence until full details of a bond or other financial provision to be put in place to cover all the decommissioning and site restoration measures outlined in the draft decommissioning and site restoration plan approved under Condition 31, have been submitted to and approving in writing by the Planning Authority.

Thereafter, the wind farm operator shall ensure that the bond or other financial provision is maintained throughout the duration of the consent and pay for the bond or other financial provision to be subject to a review five years after commencement of development and every five years thereafter until such time as the wind farm is decommissioned and the site restored.

Each review of the bond or other financial provision shall be conducted by a suitably qualified independent professional and published within three months of each five year period ending, with a copy submitted upon its publication to the landowner(s) and for the written approval of the Planning Authority.

The written approval of the Planning Authority may be requested for the review either without amendment or, as the case may be, following amendment to the reasonable satisfaction of the Planning Authority.

Where the Planning Authority approves a review in principle and recommends that the amount of the bond or other financial provision should be altered (be that an increase or decrease) or the framework governing the bond or other financial provision should be amended, the recommendation shall be implemented, insofar as reasonable, within one month of receiving that recommendation, or such other timescale as may be agreed in writing by the Planning Authority. Any dispute in this respect shall be referred to an appropriate independent third party for arbitration

Reason: *to ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed planning permission in the event of default by the Company.*

33. Breeding Bird Protection Plan

- (1) No development shall commence unless and until a Breeding Bird Protection Plan (“BBPP”) has been submitted to and approved in writing by the Planning Authority, in consultation with SNH/NatureScot and RSPB.
- (2) The BBPP shall set out survey methods for the identification of sites used by protected and sensitive birds during construction and shall detail operational protocols to prevent or minimise disturbance of birds during construction of the Development.
- (3) The BBPP approved under part (1) shall be implemented during construction works.

Reason: *To minimise impacts on birds during the construction phase.*

34. Environmental Management Plan

That, prior to the site being commissioned, a full site specific Environmental Management Plan (EMP) in respect of the operation phase shall be submitted for approval to the Planning Authority. The EMP shall be in accordance with the mitigation measures set out in the Troston Loch Wind Farm Volume 1: EIA Report Text, Chapter 17: Summary of Mitigation. Thereafter, the Development shall be operated in complete accordance with the EMP unless otherwise agreed in writing with the Planning Authority.

Reason: *to ensure all environmental mitigation measures are fully implemented.*

35. Compensatory Landscape

- (1) That a landscape plan shall be agreed between the applicant and the Council within an agreed timescale, which might include:
 - (a) developing public recreational use of the site including an extension of core path 217 northwards to connect with Knocksting and Troston Lochs;
 - (b) interpretation / conservation of historic farmsteads in or around the site as points of interest in the landscape and walks including Kilnair, Knocksting, Troston; and
 - (c) widening the Forest Plan objectives and design measures to include landscape, amenity and biodiversity enhancements.

Reason: *In the interests of screening and biodiversity enhancements.*

36. Final Commissioning

- (1) Prior to the Date of Final Commissioning, the Company must submit a draft Site Inspection Strategy (SIS), for the written approval of the Planning Authority. This shall set out details for the provision of site inspections and accompanying Site Inspection Reports (SIR) to be carried out at 25 years of operation from the Date of Final Commissioning. At least one month in advance of submitting the SIR, the scope of content shall be agreed with the Planning Authority. The SIR shall include, but not be limited to:
 - (a) Requirements to demonstrate that the infrastructure of the Development is still fit for purpose and operating in accordance with condition 8 and condition 37; and
 - (b) An engineering report which details the condition of tracks, turbine foundations and the wind turbine generators and sets out the requirements and the programme for the implementation for any remedial measures which may be required.
- (2) Thereafter the SIS and SIR shall be implemented in full unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *To ensure the condition of the infrastructure associated with the Development is compliant with the EIA report, condition 8 and condition 37 and is to ensure the Development is being monitored at regular intervals throughout its operation.*

37. Noise

- (1) The rating level of noise immissions from the combined effects of the wind turbines hereby approved (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes (to this condition), shall not exceed the values for the relevant integer wind speed set out in Tables 1

and 2 attached to these conditions at any dwelling which is lawfully existing or has planning permission at the date of this permission.

- (2) Prior to the Date of First Commissioning, the Company shall submit to the Planning Authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Planning Authority.
- (3) Within 28 days from receipt of a written request from the Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, and where the dwelling lawfully exists or has planning permission at the date of this consent the Company shall, at its expense, employ a consultant approved by the Planning Authority to assess the level of noise emissions from the wind farm at the complainant's property. The written request from the Planning Authority shall set out at least the date, time and location to which the complaint relates and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.
- (4) The assessment of the rating level of noise emissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Planning Authority. The protocol shall include the proposed measurement location(s) where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise emissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the Planning Authority under the paragraph above, and such others as the independent consultant considers likely to result in a breach of the noise limits.
- (5) In the event of a complaint from any dwelling (existing at the date of this permission) not named in Tables 1 and 2 attached to these conditions, the measured wind farm noise immission level shall be compared to the noise limits at the property in Table 11.2 of Chapter 11 of the SEI which is most likely to experience background noise levels similar to the Complainant property (the appropriate property will be nominated by the Developer subject to the agreement of the Local Planning Authority at the time of investigating any complaint). Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farm" (1997) published by the Energy Technology Unit (ETSU) for the Department of Trade and Industry (DTI).

- (6) The Company shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Planning Authority for compliance measurements to be made under paragraph (3), unless the time limit is extended in writing by the Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Planning Authority with the independent consultant's assessment of the rating level of noise immissions.
- (7) Where a further assessment of the rating level of noise immissions from the Development is required pursuant to Guidance Note 4(c) of the attached Guidance Notes, the Company shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (6) above unless the time limit for the submission of the further assessment has been extended in writing by the Planning Authority.

Table 1: Between 07:00 and 23:00 – Noise limits expressed in dB LA90,10 min as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10-minute periods.

Receptor	Standardised Wind Speed at 10 m AGL, ms ⁻¹								
	4	5	6	7	8	9	10	11	12
	Noise Limit, dB, LA90,10min								
Daytime									
Auchenshinnoch	35.0	36.4	38.7	39.4	40.9	40.9	40.9	40.8	40.7
Auchenstroan	38.0	38.0	38.0	39.0	39.6	40.5	41.1	42.6	43.1
Carroch	35.6	36.6	37.8	39.3	40.6	42.6	44.9	47.4	50.2
Fingland	35.0	38.0	39.8	42.1	43.3	43.3	43.2	43.2	43.0
Minnygryle	35.0	37.5	40.0	42.8	44.1	44.1	44.1	44.1	44.1
Yellow Craig	35.6	36.6	37.8	39.3	40.3	42.3	44.6	47.2	50.0

Table 2: Between 23:00 and 07:00 – Noise limits expressed in dB LA90,10 min as a function of the standardised wind speed (m/s) at 10 metre height as determined within the site averaged over 10-minute periods.

Receptor	Standardised Wind Speed at 10 m AGL, ms ⁻¹								
	4	5	6	7	8	9	10	11	12
	Noise Limit, dB, LA90,10min								
Auchenshinnoch	42.9	42.7	42.4	42.0	41.9	41.8	41.8	41.8	41.7
Auchenstroan	43.0	42.9	42.9	42.8	42.8	42.7	42.5	42.3	41.8
Carroch	43.0	42.9	42.9	42.8	42.8	43.4	45.9	48.9	52.1
Fingland	42.9	42.7	42.5	42.2	42.1	42.6	44.1	44.0	43.9
Minnygryle	42.9	42.8	42.7	42.6	43.9	45.9	46.3	46.3	46.3
Yellow Craig	42.9	42.8	42.7	42.7	42.6	43.1	45.7	48.7	52.0

Reason: to protect nearby residents from undue noise and disturbance. To ensure that noise limits are not exceeded and to enable prompt investigation of complaints.

Guidance Notes for Wind Farm Noise Conditions

These notes are to be read with and form part of the noise condition.

Guidance Note 1

(a) Values of the LA90, 10min noise statistics shall be measured at the Complainant’s property using a sound level meter of EN 60851/BS EN60804 Type 1. Or EN 61672 Class 1 quality (or the replacement thereof) set to measure using a fast time weighted response as specified in BS EN 60851/ BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements.) This shall be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the replacement thereof.) These measurements shall be made in such a way to enable a tonal penalty to be calculated and applied in accordance with the requirements of Note 3.

(b) The microphone should be mounted at 1.2 – 1.5m above ground level, fitted with a two layer windshield (or suitable alternative approved in writing from the Planning Authority) and placed outside the Complainant’s dwelling. Measurements should be made in “free-field” conditions. To achieve this, the microphone should be placed at least 3.5m away from the building façade or any reflecting surface except the ground at a location agreed with the Planning Authority. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the Company

shall submit for the written approval of the Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.

(c) The LA90, 10min measurements shall be synchronised with measurements of the 10 minute arithmetic mean wind speed and with operational data, including power generation information for each wind turbine, from the turbine control systems of the wind farm in accordance with Guidance Note 1(d) and rain data logged in accordance with Note 1(f).

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres . It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10-minute periods shall commence on the hour and in 10- minute increments thereafter.

(e) Data provided to the Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

(f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b).

(b) Valid data points are those measured in the conditions specified in the agreed written protocol under paragraph (4) of the noise condition, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1 (f). In specifying such conditions the Planning Authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90,10 minute noise measurements and corresponding values of the 10- minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, “best fit” curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where, in accordance with the approved assessment protocol under paragraph (4) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

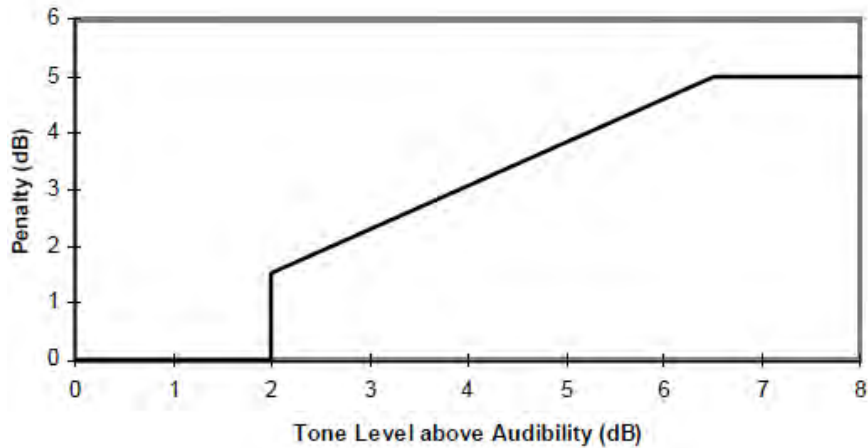
(b) For each 10 minute interval for which LA90,10 minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

(d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.

(e) A least squares “best fit” linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the Local Planning Authority in its written protocol under paragraph (4) of the noise condition.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant's dwelling approved in accordance with paragraph (5) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The Company shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e) Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the Planning Authority in its written request under paragraph (3) and the approved protocol under paragraph (4) of the noise condition.

(f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

(g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (4) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (5) of the noise condition then the development fails to comply with the conditions.

Definitions

In this consent and deemed planning permission:-

“Commencement of the Development” means the date on which Development shall be taken as begun in accordance with section 27 of the Town and Country Planning (Scotland) Act 1997 (as amended).

“the Company” means EDF Energy Renewables Limited having its registered office at Alexander House, 1 Mandairn Road, Rainton Bridge Business Park, Houghton Le Spring, Sunderland, DH4 5RA under the Company No. 06456689, or such other person who from time to time may lawfully have the benefit of this consent.

“Date of First Commissioning” means the date on which electricity is first exported to the grid network on a commercial basis from any of the wind turbines forming part of the Development.

“Date of Final Commissioning” means the earlier of (i) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (ii) the date falling eighteen months from the Date of First Commissioning.

“the Development” means the development as described in Annex 1 authorised by this section 36 consent and deemed planning permission.

“HES” means Historic Environment Scotland.

“Planning Authority” means Dumfries and Galloway Council.

“SEPA” means Scottish Environmental Protection Agency.

“Site” means the area of land outlined in red on Figure 4.1 site layout plan of the Supplementary Environmental Information and Annex 3 of this decision letter.

“SNH”/ “Nature Scot” means Scottish Natural Heritage (now known as NatureScot).

“storage technology” means the electricity storage technology type that is used by the Development.



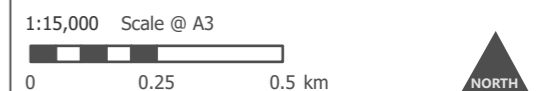
- Site Boundary
- ⊕ Proposed Turbine Location
- Crane Hardstanding
- Turbine Foundation
- New Tracks
- Existing Tracks to be Upgraded
- Construction Compound
- Substation Compound
- Substation Building
- Existing Borrow Pit
- New Borrow Pit
- Blade Storage
- Crane Jib Assembly Area

This is the Turbine Layout referred to in the consent by the Scottish Ministers in terms of Section 36 of the Electricity Act 1989 for the construction and operation of Troston Loch Wind Farm, a wind powered electricity generating station near Moniaive, Dumfries & Galloway.

Signed: Redacted

Alan Brogan, a member of the staff of the Scottish Ministers

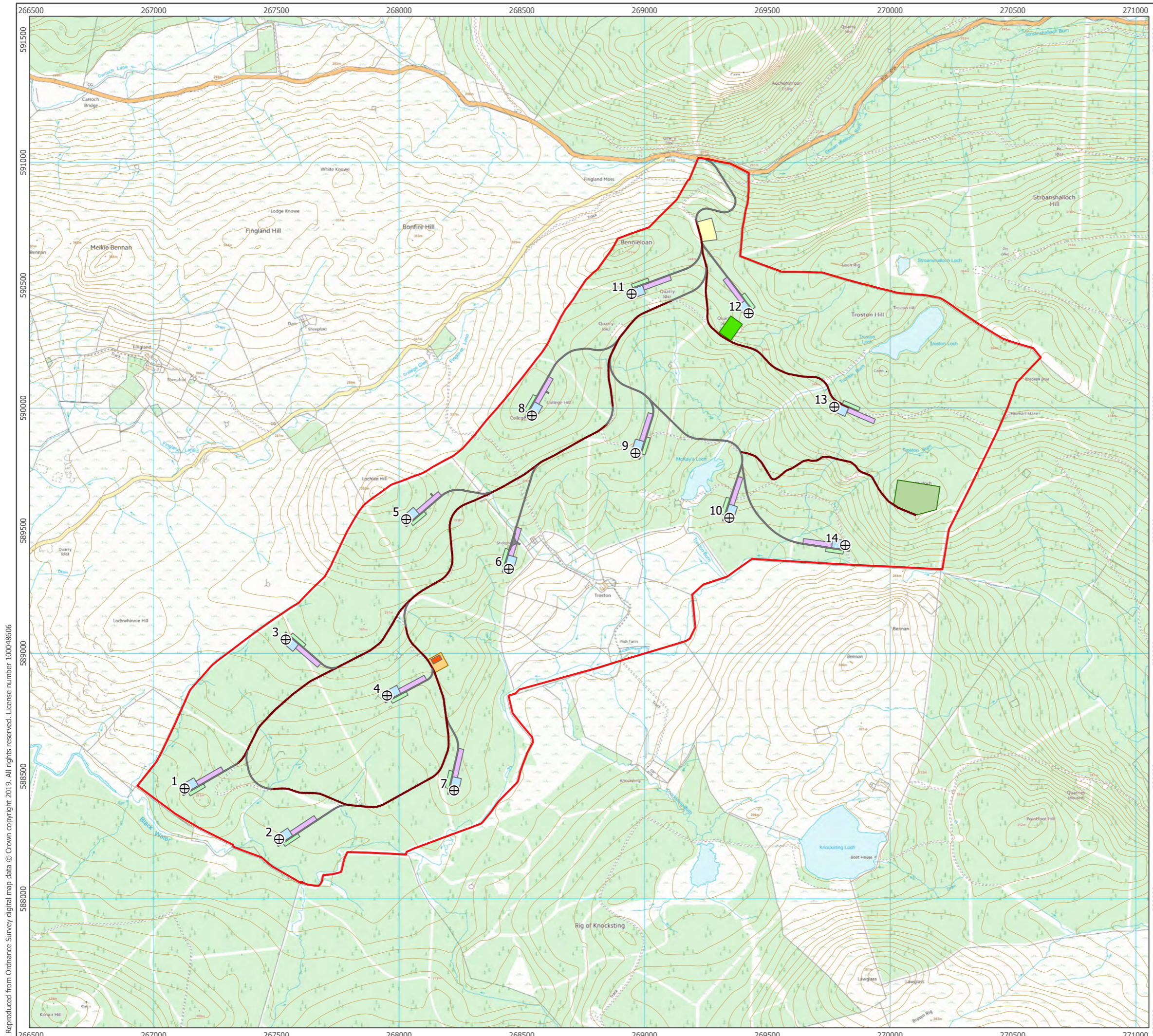
Date: 18 December 2020



Produced By: HW	Ref: 3485-REP-008
Checked By: TP	Date: 18/09/2019

Revised Site Layout Plan
SEI Figure 4.1

Troston Loch Wind Farm
SEI



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Brockloch Rig III Ltd
C/o Harper Macleod LLP
The Ca'd'oro
Glasgow
G1 3PE

23 March 2021

Dear Sir or Madam

CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND DEEMED PLANNING PERMISSION UNDER SECTION 57(2) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 FOR THE CONSTRUCTION AND OPERATION OF WINDY STANDARD III WIND FARM, LOCATED AT CARSPHAIRN FOREST, WITHIN THE PLANNING AUTHORITY AREA OF DUMFRIES AND GALLOWAY.

Application

I refer to the application made on 6 December 2016 (the "Application") under section 36 of the Electricity Act 1989 ("the Act") made by Natural Power on behalf of Brockloch Rig III, a company incorporated under the Companies Act with company number SC295868 and having its registered office at C/o Harper Macleod LLP, The Ca'd'oro, Glasgow, G1 3PE ("the Company"), for the construction and operation of a wind powered electricity generating station comprising 20 wind turbines, consisting of 8 turbines of a maximum height from base to tip not exceeding 125 metres and 12 turbines of an overall height from base to tip not exceeding 177.5 metres ("the proposed Development").

This letter contains the Scottish Ministers' decision to grant section 36 consent for the development as more particularly described at Annex 1.

Planning Permission

In terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997 the Scottish Ministers may on granting consent under section 36 of the Electricity Act for the construction and operation of a generating station direct that planning permission be deemed to be granted in respect of that generating station and any ancillary development.

This letter contains the Scottish Ministers' direction that planning permission is deemed to be granted.

Background

On 6 December 2016, the Company submitted an application to construct and operate Windy Standard III wind farm. The Application proposed 20 wind turbines, consisting of 8 turbines of a maximum height from base to tip not exceeding 125 metres and 12 turbines of an overall height from base to tip not exceeding 177.5 metres, and a total installed capacity of around 67.2 MW. In accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 ("the 2000 Regulations") an Environmental Statement, comprising of four volumes and including an updated volume (cumulative LVIA) called "an addendum" ("ES") describing the proposed development and giving an analysis of its environmental effects was submitted.

Consultation

In accordance with statutory requirements, a notice of the proposed Development was published on the Company's website and the Application was advertised in the local and national press. The Application was placed in the public domain, and the opportunity given for those wishing to make representations to do so. The 2000 Regulations have subsequently (with effect from 16 May 2017) been replaced by the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the "2017 Regulations"). The 2017 Regulations now apply to this Application subject to certain modifications. These modifications, among other things, provide that where the 2017 Regulations refer to an "EIA Report" this includes an "Environmental Statement" prepared under the 2000 Regulations.

Under paragraph 2(1) of Schedule 8 of the Electricity Act and the 2000 Regulations, the relevant planning authority is required to be notified and consulted in respect of a Section 36 consent application. In terms of the 2000 Regulations, notifications and consultations were sent to Dumfries and Galloway Council as the relevant planning authority (the "PA"), as well as Scottish Natural Heritage, acting under its operating name NatureScot (NatureScot), the Scottish Environmental Protection Agency ("SEPA") and Historic Environment Scotland ("HES"), as well as other persons that are likely to be concerned by the proposed Development by reason of their specific environmental responsibilities.

Summary of the Consultation Responses

Statutory Consultees

Dumfries and Galloway Council (the Planning Authority) objected to the proposed Development. They advised the proposal would be contrary to Local Development Plan Policy IN2 for the following reasons:

- a) the proposal would give rise to unacceptable adverse cumulative visual impact and landscape impact and would contribute to the creation of a wind farm landscape character in the locality;
- b) the proposal would be a departure from the revised Dumfries and Galloway Windfarm Landscape Capacity Study (DGWLCS) guidance relative to the Very Large typology turbines; and
- c) the proposed Development would have an unduly adverse impact on the setting of and key views from Cairnsmore of Carsphairn, an important landmark hill within the region.

SEPA initially objected due to lack of information in respect of waste management issues with peat, borrow pit specifications, forestry waste and pollution risks to the water environment. The Company provided clarifications requested by SEPA allowing them to withdraw their objection, subject to planning conditions being attached to any consent granted. The Scottish Ministers have imposed appropriately worded conditions relating to the submission and agreement of a Construction Environmental Management Plan (CEMP) and a requirement for an Ecological Clerk of Works.

NatureScot did not object, however some concerns were raised regarding cumulative effects from popular key summits, including from Cairnsmore of Carsphairn and the Merrick. NatureScot also recommended that the applicant provides clarifications in regard to aviation lighting requirements and the effects on birds and the nearby Dark Sky Park. To aid their appraisal of the effects, NatureScot agreed with the applicant that several existing daytime photos from key viewpoints would be manipulated with computer software to add the proposed lighting. In response to the clarifications provided, NatureScot recommended the consideration of radar activated lighting mitigation for the proposal due to the significant landscape and visual effects as the area has very little lighting in the baseline and the possible effects on birds.

The Scottish Ministers, having considered the response from NatureScot, as well as the consideration given to aviation lighting effects on the landscape by the Reporters at chapter 3 of the PLI Report in addition to the conclusions drawn by the Reporters in respect of the effects of aviation lighting on birds at paragraph 5.36 of the PLI Report, are satisfied that the lighting proposed by the Company would be acceptable. Nevertheless the condition recommended by the Reporters, and imposed by Scottish Ministers, requires the final detail of aviation lighting to be submitted at a later date in order to take advantage of the best available technology in the future.

HES did not object, however commented that there would be impacts on the setting of the scheduled monument 'the King's Cairn'. Up to three wind farms would lie within views to the east of the scheduled monument over the Water of Deugh and toward the valley of the Shalloch Burn. HES does not consider that the impact reaches the threshold where national issues would be raised.

Internal Scottish Government Advisors

Marine Scotland recommends site characterisation surveys are undertaken both within and downstream of the proposed Development area to assess the presence

and abundance of fish species within the Water of Deugh. They also consider that their advice on water quality monitoring is consulted and full details regarding proposed water quality monitoring programmes should be outlined.

The Scottish Ministers have imposed appropriately worded conditions which address the requirements of Marine Scotland.

Transport Scotland did not object to the proposed Development. They consider it acceptable that the Traffic Management Plan will detail the selected route for abnormal loads. However, they requested that a swept path analysis is undertaken to identify any mitigation measures to deal with abnormal load movements. They highlighted that the level of traffic generation during construction does not trigger the need for further assessment. They requested two conditions dealing with the route of abnormal loads and relating to traffic control measures, should be attached to the consent.

The Scottish Ministers have imposed appropriately worded conditions which address the requirements of Transport Scotland.

Scottish Forestry (formally Forestry Commission Scotland) is broadly content with the methodology and approach used within the ES and largely agrees with the conclusions. However, they requested clarification that the woodland loss identified in the ES (28.87 ha) will be compensated for with appropriate planting.

The Scottish Ministers have imposed a condition, recommended by the Reporters, which gives effect to the requirements of Scottish Forestry.

Advisors to Scottish Government

AM Geomorphology identified a number of minor revisions and points of clarification in relation to data sources, assessment and methods used in respect of the peat landslide hazard risk assessment. Having received further clarification from the applicant, A M Geomorphology confirms that all matters have been addressed.

Other Consultees

BT does not object to the proposed Development. The proposed Development should not cause interference to BT's current and presently planned radio network.

Carsphairn Community Council objected to the proposed Development on the basis of the responses received to a survey conducted by the community council to the residents of Carsphairn. 21 people were against the proposal with 4 people in favour. Those in support of the proposal consider it seems sensible to extend existing site further and for the community to benefit as much as possible. Those who raised objections key concerns were in relation to landscape & visual impact, cumulative concerns and tourism impacts.

Civil Aviation Authority (CAA) advises that the site should be checked to confirm whether it falls within the range of an aerodrome. They also recommend that Emergency Service Helicopter Support Units should be consulted. CAA requires that all structures of 91.4 metres or more be charted on aeronautical charts and reported

to the Defence Geographic Centre. For structures of 150 metres or more, there is a legal requirement to fit suitable lights to the turbines in accordance with the Air Navigation Order (ANO) 2016.

Defence Infrastructure Organisation request that the turbines should be fitted with MOD accredited aviation safety lighting given their potential to create a physical obstruction to air traffic movements and cause interference to Air Traffic Control and Air Defence radar installations. They also wish to be consulted and notified of the progression of planning applications and submissions relating to this proposal to verify that it will not adversely affect defence interests.

The Scottish Ministers have imposed appropriately worded aviation conditions to give effect to the requirements of Defence Infrastructure Organisation and the Civil Aviation Authority.

Galloway Fisheries Trust require mitigation measures to be installed in relation to tracks in order to protect watercourses from silt, run-off, aggregate ingress and pollution. Tracks and drainage channels should also be monitored periodically during the operational phase with all works to be overseen by the Ecological Clerk of Works (ECoW). Adequately sized buffers to be left around water courses. Fish surveys should be carried out to help inform the CEMP. As outlined above for Marine Scotland and SEPA, the Scottish Ministers have imposed appropriately worded conditions which will also address the issues raised by Galloway Fisheries Trust.

East Ayrshire Council initially objected on the grounds that the number of turbines proposed to be greater than 150 metres high have the potential to have an adverse landscape and visual impact. The cumulative impact on landscape character, impact on tourism and on the setting of Loch Doon was raised. The key concern was the impact of the proposed aviation lighting on Loch Doon and the Galloway Forest Dark Sky Park and the lack of information concerning these impacts. The council also raised concerns that the proposed Development could have an extensive impact on the public road network and requires the applicant to enter into separate legal agreements under Section 96 of the Roads (Scotland) Act 1984 and Section 69 of the Local Government (Scotland) Act 1973 in order to recover any expenses of maintenance incurred by the councils. Following further clarification provided by the applicant, East Ayrshire Council removed their objection relating to aviation lighting.

Glasgow Prestwick Airport initially objected on the grounds that some of the turbines may be visible to the Primary Surveillance Radar and would therefore display as clutter on the radar displays and that their published instrument flight procedures (“IFPs”) may be impacted by the proposed Development. On 17 March 2021 both objections were withdrawn subject to the imposition of conditions on the section 36 consent requiring the Company to implement a radar mitigation scheme and an IFP scheme (if found to be necessary).

John Muir Trust objects on the grounds that the excessively tall proposed structures would be significantly higher than any other wind turbines in Dumfries and Galloway and are inappropriate to the landscape of the area. They will have a detrimental impact on the peat on site and will have a negative socio economic impact. The Scottish

Ministers can confirm that the impacts on peat and socio economics have been fully taken into consideration before granting consent.

National Air Traffic Services (NATS) has no safeguarding objection to the proposal and no impact is anticipated on NATs Radar, navigation aids or radio communications infrastructure.

RSPB Scotland agrees with the findings of the ES that due to the low level of activity recorded through ornithological survey work that the risk to avian species from the proposed Development is not significant. However, they recommend that habitat enhancement is considered for black grouse as long as this could be achieved at a distance of at least 500 metres from the location of the turbines. Regarding deep peat habitat, they advise that micro-siting of certain turbines is considered in order to minimise impact.

The Scottish Ministers have imposed an appropriately worded micro-siting condition which takes account of the environment. The Scottish Ministers agree with the Reporters' conclusions at Para 5.26 of the PLI report and do not consider it necessary to impose a requirement for habitat enhancement.

Scottish Water indicates that the proposed turbines and infrastructure are located within the boundary for the Carsfad reservoir catchment therefore water quality and quantity should be protected and Scottish Water notified of any pollution incidents. Scottish Ministers have included these requirements in the Condition imposed for a Construction and Environmental Management Plan (CEMP)

Visit Scotland suggests that full consideration be given to the Scottish Government's 2008 research on the impact of wind farms on tourism and a tourism impact statement be provided.

The following bodies had no comments or did not respond:

Association of Salmon Fishery Board, Balmaclellan, Crown Estate Scotland, Dalmellington Community Council, Dalry Community Council, Dumfries and Galloway Bat Group, Dumfries and Galloway Raptor Study Group, Glasgow Airport, Joint Radio Company, Mountaineering Council, New Cumnock Community Council, OFCOM, Red Squirrels in South Scotland, Scotland's Garden and Landscape Heritage, Scottish Wild Land Group, Scottish Wildlife Trust, Nuclear Safety Directorate and British Horse Society.

A summary of the consultation responses regarding the proposed Development are set out in Chapter 1.9 – 1.28 of the Public Local Inquiry Report and have been taken into account in the determination of the proposed Development.

Full details of the consultation responses are available on the Energy Consents website at www.energyconsents.scot

Summary of Public Representations

In response to the public consultation, no letters of support or objection were received.

Public Local Inquiry (“PLI”)

Dumfries and Galloway Council lodged an objection outwith the agreed time limit therefore Scottish Ministers are not required to hold a public inquiry by virtue of paragraph 2(2) of schedule 8 of the Electricity Act. However paragraph 3(2), of the same schedule, provides that where the Scottish Ministers are not required by virtue of paragraph 2(2) to cause a public inquiry to be held, but objections have been sent to the Scottish Ministers, then the Ministers are to consider those objections, together with all other material considerations, with a view to determining whether a public inquiry should be held with respect to the application and, if they think it appropriate to do so, cause a public inquiry to be held. The Scottish Ministers, having considered the out of time objection from Dumfries and Galloway, considered that it was appropriate that a public inquiry was held.

The inquiry sessions were held on 3 and 4 December 2018 and the hearing sessions took place on 3 and 5 December 2018. Closing submissions were exchanged in writing, with the final closing submission (on behalf of the applicant) being lodged on 18 January 2019.

Following the inquiry, the Reporters allowed parties to lodge further written submissions to map the up-to-date cumulative wind farm position, to comment on the Pencloe Wind Farm decision (at the request of the applicant), and to reach agreement on conditional matters dealing with access tracks and noise. Further written submissions relating to recent policy matters were also permitted.

Unaccompanied inspections of the appeal site, its surroundings and locations referred to in evidence during August and September 2018 and on 6 December 2018. An accompanied site inspection took place on 3 September 2018.

The PLI Report was received by the Scottish Ministers on 23 December 2019.

The Scottish Ministers Considerations

Environmental Matters

The Scottish Ministers have had regard to the matters set out in Schedule 9 of the Act in respect of the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest. The Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to the stock of fish in any waters.

In accordance with section 36(5A) of the Act, before granting any section 36 consent the Scottish Ministers are also required to:

- obtain SEPA advice on matters relating to the protection of the water environment; and
- have regard to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003.

SEPA's advice has been considered as required by section 36(5A) with due regard given to the purposes of Part 1 of the Water Environment and Water Services (Scotland) Act 2003. SEPA have no objection to the proposed Development.

The Scottish Ministers are satisfied that the ES has been produced in accordance with the 2000 Regulations. The Scottish Ministers have assessed the environmental impacts of the proposed Development and taken the environmental information (ES, representations, consultation responses including those from NatureScot, SEPA, HES and the PA) into consideration in reaching their decision.

The Scottish Ministers consider that there is sufficient information to be satisfied that the Company has had regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

The Scottish Ministers are satisfied that the Company has done what it reasonably can to mitigate any effect which the proposed Development would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects.

Under paragraph 3(3) of Schedule 9 of the 1989 Act, Scottish Ministers shall avoid, so far as possible, causing injury to fisheries or to stock of fish in any waters. The Scottish Ministers are satisfied that this is the case and more generally that the requirements of paragraph 3 have been met.

The Scottish Ministers have had regard to the requirements regarding publicity and consultation laid down in the Consents Regulations and the 2000 Regulations and are satisfied the general public as well as statutory and other consultees have been afforded the opportunity to consider and make representation on the proposed Development.

The Scottish Ministers have considered fully and carefully the application, including the Environmental Statement, consultation responses, the findings, conclusions and recommendation of the PLI report and all other material information and, are satisfied that the environmental impacts of the proposed Development have been assessed and have taken the environmental information into account when reaching their decision.

Main Determining Issues

Having considered the Application, the ES, responses from consultees parties, the PLI Report and Scottish Government policies, the Scottish Ministers agree with the Reporters (as set out at paragraph 8.6 of the PLI Report) that the main determining issues are:

- the landscape and visual impact of the development, including impacts from aviation lighting;
- the benefits of the development, including its renewable energy generation, greenhouse gas emissions savings and net economic impact; and

- the degree to which it would be in conformity with national planning policy, the local development plan and other relevant guidance.

PLI Report

In each chapter of the PLI Report, the Reporters summarised the arguments for each party, taking account of the precognitions, hearing statements, hearing sessions, the discussion at the Inquiry and the closing submissions. The Reporters also took into account the environmental information included in the ES, the written representations and all of the other information supplied for the Inquiry and hearing sessions. The chapters of the PLI Report provide the following:

Chapter 1 – Background, consultations and representations

Chapter 2 – Legislative and policy context

Chapter 3 – Landscape and visual effects including aviation lighting

Chapter 4 – Socio-economic and tourism

Chapter 5 – Other matters comprising of:

- Ecology
- Ornithology
- Cultural heritage
- Hydrology, geology and hydrogeology
- Peat and carbon rich soils
- Noise and shadow flicker
- Forestry
- Aviation radar and communications
- Roads and traffic

Chapter 6 – Suggested conditions

Chapter 7 – Policy assessment of the proposal

Chapter 8 – Conclusions and recommendations

The Reporters' recommendation to the Scottish Ministers is that consent is granted under Section 36 of the Electricity Act 1989 and direct that planning permission is deemed to be granted, and that conditions proposed by the Reporters are attached.

Assessment of the Determining Issues

Landscape and Visual Impacts

The assessments and the Reporters' conclusions are detailed in Chapter 3 of the PLI Report.

In the assessment of landscape and visual impact of the proposed Development, the Reporters have taken into account matters including relevant landscape designations, landscape character types (LCTs), landscape and visual effects and cumulative landscape and visual effects. The Reporters concluded significant effects on landscape character and visual effects would be mostly limited to the site and its immediate surroundings.

The effects would not change the intrinsic characteristics of the relevant LCTs studied. Given that effects would be localised, or only visible in distant views as contributing to the existing turbine assemblage, it is not considered that the proposals would have a significant effect on the Galloway Hills Regional Scenic Area, the East Ayrshire Sensitive Landscape Area, South Lanarkshire Special Landscape Area, Craigengillan Garden and Designed Landscape or the Merrick Wild Land Area.

Significant visual effects would be mostly localised and from particular limited locations. There would be no significant effects from settlements or individual residential properties. There would be no significant adverse effects for travellers using local transport routes. Cumulative visual effects would be experienced from certain walking routes and summits. The Reporters, however found that the proposed development would be seen as a constituent part of the complex of wind farms present and consented in this area.

Effects of Aviation Lighting

The applicant submitted clarifications in regard to aviation lighting requirements and effects on birds and the Dark Sky Park. The visualisations were based on daytime photography provided within the ES being manipulated to resemble night time views. The visuals therefore do not contain existing artificial lighting sources and cannot demonstrate the light intensity of which varies when viewed from different angles and in different climatic conditions.

The applicant therefore offered interested parties the opportunity to view a test example of the light source at the existing Windy Standard development. The light was placed on turbine 16, as it was comparable to that of turbine 12 at the Meaul Hill cluster of the proposed Development. The Reporters visited the site on two consecutive occasions to view the test light from the road at Viewpoint 10 (Loch Doon) and Viewpoint 12 (Forest Drive). The visits took place in early December 2018 on clear nights with no low cloud cover, therefore the Reporters did not experience any 'halo' or 'blinking' effect caused by moving turbine blades. Officials from the Energy Consents Unit also visited the site and are in agreement with the Reporters that the test light adequately demonstrated the potential effect on the night sky from these locations.

There is an accepted low level of ornithological activity in the area, however the site does not support important populations of bird species, the Reporters concluded that any individual mortality of birds as a result of the proposed lighting would not have an impact upon the populations of the relevant species, and hence would not have unacceptable effects.

In order to meet CAA requirements and ensure that appropriate lighting is provided on the proposed Meaul Hill turbines, the Reporters have suggested a planning condition which has been imposed by the Scottish Ministers in Annex 2 of this determination.

The Scottish Ministers have taken account of the Reporters' overall conclusions on the landscape and visual effects, cumulative effects and aviation lighting effects of the

proposed Development, and are content to adopt them for the purpose of their own decision.

Renewable Energy Produced and Contribution to Targets and Carbon Payback

NPF3 is clear that planning must facilitate the transition to a low carbon economy, and help to deliver the aims of the Scottish Government's Report on Proposals and Policies. Our spatial strategy facilitates the development of generation technologies that will help to reduce greenhouse gas emissions from the energy sector. Scotland has significant renewable energy resources, both onshore and offshore.

Policy Principles set out in SPP state that the planning system should:

- Support the transformational change to a low carbon economy, consistent with national objectives and targets, including deriving;
 - 30% of overall energy demand from renewable sources by 2020;
 - 11% of heat demand from renewable sources by 2020; and
 - the equivalent of 100% of electricity demand from renewable sources by 2020.
- Support the development of a diverse range of electricity generation from renewable energy technologies, including the expansion of renewable energy generation capacity and the development of heat networks.

The proposed Development makes a significant contribution towards meeting greenhouse gas emission and renewable electricity targets. The proposed Development will have a generating capacity of up to 67.5 MW based on current technology. The deployment of this amount of renewable energy produced in Scotland is entirely consistent with the Scottish Government's policy on the promotion of renewable energy and its target date for net-zero emissions of all greenhouse gases by 2045.

Carbon Payback

The carbon payback for the proposed Development has been presented in the ES using the approved carbon calculator. In overall terms the proposed Development if built would be expected to have a payback period of 1.7 years if it replaces the grid-mix of electricity generation, 0.8 years if it replaces coal and 1.1 if it replaces the fossil-fuel mix.

Whilst noting the limitations of any such calculations, the online carbon calculator provides the best available means by which carbon calculations can be provided in a consistent and comparable format.

The Scottish Ministers agree with the Reporters, as set out at paragraph 7.41, that the balance of advantage in terms of climate change mitigation lies with the development proposal and are satisfied that the proposed Development would provide carbon savings, and that these savings would be of an order that weighs in favour of the proposed Development.

Economic Benefits

The Reporters set out their considerations and conclusions on the socio-economic and tourism impacts of the proposed Development at Chapter 4 of the PLI Report.

Scottish Planning Policy 2014 (SPP) advises that proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include, as well as a number of other considerations, net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.

The transition to a low carbon economy is an opportunity for Scotland to take advantage of our natural resources to grow low carbon industries and create jobs.

The ES sets out a number of socio-economic benefits of the proposed Development:

- A capital expenditure estimated at £83 million resulting in direct and indirect economic effects;
- During the construction phase, creation of an anticipated 163 jobs at the Scottish level, contributing £9.45 million in Gross Value Added (GVA), and 36 jobs and £2.11 million at the Dumfries and Galloway level;
- During the operation phase, creation of an anticipated 12 jobs and £1.17 million in GVA at the Scottish level and five jobs and £520 k in GVA at the Dumfries and Galloway level;

The economic benefits of the proposed Development are set out in the ES in terms of employment and GVA generation. The Reporters accept that these are under-estimates of the total economic effects and that there would likely also be wider benefits, particularly in terms of supporting local business through the supply chain.

Whilst it is difficult to precisely quantify overall net economic benefits, given direct and indirect effects and timescales, The Scottish Ministers are satisfied the proposed Development has the potential for positive net economic benefits both to the local community and Dumfries and Galloway more generally.

Figures in the ES in relation to the local tourism industry demonstrate that there are relatively few tourism businesses within the immediate area of the proposed Development. Based on the evidence presented from the BiGGAR, 2017 report, that wind farms do not have an adverse effect on tourism and that turbines are already a feature of the local landscape, consequently the Scottish Ministers consider that the proposed Development would not have a significant adverse impact on socio-economics, tourism or recreation.

Policy Support

Chapter 2 of the PLI Report sets out the policy context against which the proposed Development should be considered and Chapter 7 of the PLI Report sets out the Reporters' consideration and assessment of the proposed Development in the context of relevant national climate change and energy policy, national planning policy and other relevant local planning policy and guidance.

Scotland's renewable energy and climate change targets, energy policies and planning policies are all material considerations when weighing up this development. NPF3, SPP, the Energy Strategy and the Onshore Wind Policy Statement make it clear that renewable energy deployment remains a priority of the Scottish Government. This is a matter which should be afforded significant weight in favour of the proposed Development.

The aforementioned NPF3 sets out Scottish Government's commitment to establishing Scotland as a leading location for the development of renewable energy technology. In Scotland there has been significant progress towards low carbon objectives whilst continuing to protect our special places from significant adverse impacts.

SPP contains guidance in respect of the granting of consent for wind farm development and is to be read and applied as a whole. It sets out overarching principal policies to be applied to all development and subject policies which set out guidance in respect of development management. An overarching principle of SPP is that the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits over the longer term. The aim is to achieve the correct development in the right place; it is not to allow development at any cost. This means that decisions and policies should be guided by certain principles including, among others, giving due weight to net economic benefit; supporting the delivery of infrastructure; supporting climate change mitigation and protecting natural heritage. At Chapters 3, 4, 5, 6 of the PLI Report the Reporters have taken account of the proposed Development against the provisions of SPP.

Scottish Ministers note that the Reporters considered SPP 2014 prior to it being updated December 2020.

Scottish Government's Energy Strategy and Onshore Wind Policy Statement (OWPS) sets out targets for the increase in the supply of renewable energy. The OWPS in particular reaffirms the vital role for onshore wind in meeting Scotland's energy targets. The statement sets out the Scottish Government's position for the ongoing need for more onshore wind development in locations across Scotland where it can be accommodated. There is also clear support in principle for extending existing sites by making best use of the potential at existing sites.

Compatibility with Local Development Plan and Supplementary Guidance

The Dumfries and Galloway Local Development Plan 2014 and Part 1 Wind Energy Development: Development Management Considerations Supplementary Guidance

2017 were the relevant statutory plans at the time of application and hearing. Since the hearing was conducted, the council have adopted the Dumfries and Galloway Council Local Development Plan 2 (LDP2) and updated their supplementary guidance.

The Reporters concluded that the proposed Development would comply with the recently adopted LDP2 and draft guidance on wind energy development.

The Scottish Ministers agree with the Reporters that the proposed Development is supported by both national and local planning policies and adopt this reasoning for the purposes of their own decision.

The Scottish Ministers' Conclusions

Reasoned Conclusions on the Environment

The Scottish Ministers have fully considered the Application, including the ES, clarifications, consultation responses, the findings, conclusions and recommendation of the PLI report and all other material information and, are satisfied that the environmental impacts of the proposed Development have been assessed and have taken the environmental information into account when reaching their decision.

The Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion addresses the likely significant effects of the proposed Development on the environment. Ministers are satisfied that this reasoned conclusion is up to date.

Conclusions on Acceptability of the Proposed Development

The proposed Development is sited in an area with an already established use as a wind farm and, if built, will contribute to renewable energy targets and towards reducing greenhouse emissions. Economic benefits to the Scottish economy are anticipated alongside short and longer term benefits to the Dumfries and Galloway planning authority area. The Scottish Ministers acknowledge that there will be some significant localised landscape and visual impacts however Ministers are satisfied, that overall, the proposed Development is appropriately sited and designed. The landscape and visual impacts which remain are acceptable in the context of the benefits that the proposed Development will bring. The Scottish Ministers are satisfied that the other environmental issues will be appropriately addressed by the mitigation measures set out in the ES and secured by relevant conditions attached to the planning permission deemed to be granted by the Scottish Ministers.

Scottish Ministers, taking account of the update to SPP in December 2020, consider that on balance the proposed development is sustainable development for the reasons as set out above.

Duration of Deemed Planning Permission

Section 58(1) of the Town and Country Planning (Scotland) Act 1997 provides that planning permission lapses if development has not begun within a period of 3 years.

Section 58(2) of that Act enables Ministers to direct that a longer period is allowed before planning permission lapses.

The Scottish Ministers consider that due to the constraints, scale and complexity of constructing such developments and the timeframes associated with the commissioning of grid infrastructure to connect them, a 5 year time scale for the Commencement of Development is typically appropriate.

As a consequence of the potential delays the Covid 19 pandemic may have on predicted construction timescales the Scottish Ministers consider it is reasonable to add an additional year to typical timescales. The Scottish Ministers therefore direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction if there has been no development within that period.

The Scottish Ministers' Determination

The Scottish Ministers have considered fully the Reporters' findings and reasoned conclusions and adopt them for the purposes of their own decision.

The Scottish Ministers agree with the Reporters' recommendation that section 36 consent should be granted for the construction and operation of the Windy Standard III Wind Farm, and that a direction deeming planning permission to be granted should be given for the Development.

Subject to the conditions set out in **Part 1 of Annex 2**, the Scottish Ministers **grant consent** under section 36 of the Electricity Act 1989 for construction and operation of the Windy Standard III Wind Farm electricity generating station in the Dumfries and Galloway Council area (**as described in Annex 1**).

Subject to the conditions set out in **Part 2 of Annex 2**, the Scottish Ministers direct under section 57(2) of the Town and Country Planning (Scotland) act 1997 that **planning permission be deemed to be granted** in respect of the development described in **Annex 1**.

Section 36 consent and expiry of Planning Permission

The consent hereby granted will last for a period of 35 years from the earlier of:

- i. the date when electricity is first exported to the electricity grid network from all of the wind turbines hereby permitted; or
- ii. the date falling 18 months after electricity is generated from the first of the wind turbines hereby permitted.

The Scottish Ministers direct that section 58(1) of the Town and Country Planning (Scotland) Act 1997 is not to apply with regard to that planning permission and that planning permission is to lapse on the expiry of a period of 6 years from the date of this direction if there has been no development within that period.

In accordance with the EIA Regulations, the Company must publicise this determination on a website maintained for the purpose of making information publicly available and in the Edinburgh Gazette and a newspaper circulating in the locality in which the land to which the application relates is situated.

Copies of this letter and the consent have been sent to the Planning Authority. This letter has also been published on the Scottish Government Energy Consents website www.energyconsents.scot

The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent. The rules relating to the judicial review process can be found on the website of the Scottish Courts:

<http://www.scotcourts.gov.uk/docs/default-source/rules-and-practice/rules-of-court/court-of-session/chap58.pdf?sfvrsn=8>

Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely

REDACTED

Head of Energy Consents

A member of the staff of the Scottish Government

ANNEX 1

Description of Development

The Development comprises a wind powered electricity generating station known as Windy Standard III with a generating capacity exceeding 50 MW, located within Carsphairn Forest, approximately 6.5 km north of Carsphairn village, in Dumfries and Galloway.

All as more particularly shown on plan reference ES Volume 3 Figure 3.6 (Site Layout) and the planning application map appended to this decision letter (Annex 3) and as specified in the Application submitted on 9 December 2016 including the ES, and the ES Addendum which accompanied it. The main components of the wind farm and related ancillary developments of the wind farm will comprise;

- **20** wind turbines consisting of 8 turbines of a maximum height from base to tip not exceeding 125m and 12 turbines of an overall height from base to tip not exceeding 177.5m;
- forestry felling;
- external transformer housing;
- widening of existing public road junction;
- site tracks;
- crane pads;
- foundations;
- underground electricity cabling;
- two permanent anemometer masts;
- extension of use of consented operations;
- extension of use of the control building;
- extension of use of the temporary construction/storage compounds;
- four Borrow pits;
- on-site concrete batching plant;
- associated works/infrastructure; and
- health and safety sign posting.

ANNEX 2

Part One

Conditions attached to the Section 36 consent

The consent granted in accordance with section 36 of the Electricity Act 1989 is subject to the following conditions:

1. Notification of Date of Final Commissioning

Written confirmation of the date of Final Commissioning shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month after that date.

Reason: To allow the Planning Authority and Scottish Ministers to calculate the date of expiry of the consent. To define the duration of the consent.

2. Commencement of Development

(1) The Commencement of the Development shall be no later than six years from the date of this consent, or in substitution, such other period as the Scottish Ministers may hereafter direct in writing.

(2) Written confirmation of the intended date of Commencement of Development shall be provided to the Planning Authority and Scottish Ministers no later than one calendar month before that date.

Reason: To avoid uncertainty and to ensure that consent is implemented within a reasonable period.

3. Non-assignment

(1) The applicant shall not be permitted to assign this consent without the prior written authorisation of the Scottish Ministers. The Scottish Ministers may authorise the assignment of the consent (with or without conditions) or refuse assignment as they may, at their own discretion, see fit. The consent shall not be capable of being assigned, alienated or transferred otherwise than in accordance with the foregoing procedure.

(2) The applicant shall notify the local Planning Authority in writing of the name of the assignee, principal named contact and contact details within 14 days of written confirmation from the Scottish Ministers of an assignment having been granted.

Reason: To safeguard the obligations of the consent if transferred to another company.

4. Serious Incident Reporting

In the event of any breach of health and safety or environmental obligations relating to the Development during the period of this consent, the Company will provide written notification of the nature and timing of the incident to the Scottish Ministers, including confirmation of remedial measures taken and/ or to be taken to rectify the breach, within 24 hours of the incident occurring.

Reason: *To keep the Scottish Ministers informed of any such incidents which may be in the public interest.*

5. Aviation Radar

(1) No blade shall be fitted to any of the Relevant Turbines forming part of the development and no such turbine shall operate, save as provided for and in accordance with the Testing Protocol, unless and until such time as the Scottish Ministers receive confirmation from the Airport Operator that:

- (a) all measures required by the Radar Mitigation Scheme prior to operation of any turbine have been implemented; and
- (b) the Civil Aviation Authority has evidenced its approval to the Airport Operator that the Radar Mitigation Scheme is acceptable mitigation for the development and has been satisfactorily implemented by the Airport Operator.

(2) No Relevant Turbine shall operate other than in accordance with the terms of the Radar Mitigation Scheme.

Reason: *In the interests of aviation safety.*

6. Aviation - Instrument flight Procedures

No turbine tower of any turbine may be erected, unless and until such time as the Scottish Ministers receive confirmation from the Airport Operator in writing that none of the turbines have an impact on the instrument flight procedures of Glasgow Prestwick Airport, or alternatively that:

- (a) an IFP Scheme has been approved by the Airport Operator;
- (b) the Civil Aviation Authority has evidenced its approval to the Airport Operator of the IFP Scheme (if such approval is required); and
- (c) the IFP Scheme is accepted by NATS AIS for implementation through the AIRAC Cycle (or any successor publication) (where applicable) and is available for use by aircraft.

Reason: *In the interests of aviation safety.*

*Definitions for the purposes of **Conditions 5 and 6** above:*

"Airport Operator" means Glasgow Prestwick Airport Limited or any successor as holder of a licence under the Commission Regulation (EU) No. 139/2014 (or any successor regulation) from the Civil Aviation Authority to operate Glasgow Prestwick Airport.

"IFP Scheme" means a scheme to address the potential impact of the turbines on the instrument flight procedures of Glasgow Prestwick Airport.

"Radar Mitigation Scheme" means such services and resources including equipment, software, procedural or technological measures and technical and professional services, as the Airport Operator identifies as necessary and sufficient to prevent the operation of the development or of any turbines forming part of the development impacting adversely on radar performance or on the performance of other navigational aids at Glasgow Prestwick Airport or on maintaining safe and efficient air traffic control services or procedures or airspace and which the Airport Operator is willing and able to implement and maintain for the lifetime of the development or for such shorter period as may be agreed in consultation with the Airport Operator as necessary to mitigate any such adverse impact.

"Relevant Turbine" means those turbines identified as T4, T13, T17, T19 as shown indicatively on the plan at figure 1.2 of the Windy Standard III Environmental Statement (appended at Annex 3) and whose co-ordinates are more particularly specified within table 4.1 of the Windy Standard III Environmental Statement.

"Testing Protocol" means the protocol to control the operation of any turbine or turbines forming part of the development for the purposes of testing of the Radar Mitigation Scheme.

ANNEX 2 - Part Two

Conditions attached to Deemed Planning Permission

7. Implementation in accordance with approved plans and requirements of the section 36 consent

Except as otherwise required by the terms of this consent and deemed planning permission, the Development shall be undertaken in accordance with the Application (including the approved drawings) and the Environmental Statement (ES) submitted 6th December 2016 in support of the application.

Reason: *To ensure that the Development is carried out in accordance with the approved details.*

8. Design and operation of wind turbines

- (1) There shall be no Commencement of Development unless and until full details of the proposed wind turbines, any anemometry masts and all associated apparatus have been submitted to and approved in writing by the Planning Authority. The turbines shall be consistent with the candidate turbine or range assessed in the environmental statement, in terms of their dimensions from base to tip.
- (2) The Development shall be constructed and operated in accordance with the approved details and maintained in the approved colour, until such time as the wind farm is decommissioned.
- (3) All wind turbine blades shall rotate in the same direction.
- (4) No part of the Development shall display any name, logo, sign or other advertisement unless otherwise approved in advance in writing by the Planning Authority or required by law.

Reason: *To ensure that the environmental impacts of the turbines forming part of the Development conform to the impacts of the candidate turbine assessed in the environmental statement and in the interests of the visual amenity of the area.*

9. Other buildings and facilities

There shall be no Commencement of Development unless and until details of the external appearance, dimensions, and surface materials of the substation building, associated compounds, any construction compound boundary fencing, external lighting and parking areas have been submitted to and approved in writing by the Planning Authority. The approved details shall be implemented.

Reason: *To ensure that the environmental impacts of the sub-station and ancillary development forming part of the Development conform to the impacts assessed in the environmental statement and in the interests of the visual amenity of the area.*

10. Micro-siting

- (1) All wind turbines, buildings, anemometry masts, areas of hardstanding and tracks shall be constructed in the location shown on plan reference Figure 3.6 (Final Layout). Wind turbines, buildings, anemometry masts, areas of hardstanding and tracks may be adjusted by micro-siting within the site. However, unless otherwise approved in advance in writing by the Planning Authority (in consultation with SEPA and NatureScot), micro-siting within the site subject to the following restrictions:
- (a) No wind turbine foundation shall be positioned higher, when measured in metres Above Ordinance Datum (Newlyn), than the position shown on plan reference ES Volume 3 Figure 3.6 (Final Layout) and as noted at Table 4.1 of Volume 2: Main Report;
 - (b) No wind turbine, building, mast or hardstanding shall be moved more than 50m from the position shown on the original approved plans;
 - (c) No access track shall be moved more than 10m from the position shown on the original approved plans (but up to 50m where required to account for any realignment necessary to connect to micro-sited turbines and crane pads);
 - (d) All micro-siting permissible under this condition must be approved in advance in writing by the Environmental Clerk of Works (ECoW).
- (2) No later than one month after the date of First Commissioning, an updated site plan shall be submitted to the Planning Authority showing the final position of all wind turbines, masts, anemometry, areas of hardstanding, tracks and associated infrastructure forming part of the Development. The plan should also specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW or Planning Authority's approval, as applicable.

Reason: *To control environmental impacts while taking account of local ground conditions.*

11. Borrow Pits

There shall be no Commencement of Development unless and until a scheme for the working of the borrow pit forming part of the Development has been submitted to and approved in writing by the Planning Authority in consultation with SEPA. The scheme shall include:

- (a) a detailed working method statement;
- (b) details of the handling of any overburden (including peat, soil and rock);
- (c) drainage details, including measures to prevent surround areas of peatland water dependent sensitive habitats and Ground Water Dependent Terrestrial Ecosystems (GWDTE) from drying out;
- (d) a programme of implementation of the works described in the scheme;
- (e) full details of the reinstatement, restoration and aftercare of the borrow pit at the end of the construction period; and
- (f) analytical testing of stone.

The approved scheme shall thereafter be implemented in full.

Reason: *To ensure that excavation of materials from the borrow pits is carried out in a manner that minimises the impact on road safety, amenity and the environment, and that the mitigation measures contained in the Environmental Statement accompanying the application, or as otherwise agreed, are fully implemented. To secure the restoration of borrow pits at the end of the construction period.*

12. Planning Monitoring Officer

There shall be no Commencement of Development unless and until the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified environmental consultant as a Planning Monitoring Officer (PMO) to assist the Planning Authority in the monitoring of compliance with conditions attached to this deemed planning permission during the period from Commencement of Development to completion of post-construction restoration works.

Reason: *To enable the Development to be suitably monitored to ensure compliance with the consent issued.*

13. Black Grouse

Pre-construction surveys for bird species should be carried out, in the appropriate season, as proposed in the Environmental Statement (8.5.20). These surveys should include (but not necessarily be limited to) surveys for black grouse and their leks. During construction a 750m buffer should be applied around any identified black grouse lek(s). No construction activity shall be allowed within these buffer areas (including vehicle movements along tracks) before 9am in the months of April and May.

Reason: *To avoid causing disturbance to lekking (displaying) birds during the sensitive breeding season.*

14. Ecological Clerk of Works

(1) There shall be no Commencement of Development unless and until the Planning Authority has approved in writing the terms of appointment by the Company of an independent and suitably qualified Ecological Clerk of Works (ECoW) in consultation with NatureScot and SEPA as necessary. The terms of appointment shall:

- (a) Impose a duty to monitor compliance with the ecological and hydrological commitments set out in the Environmental Statement and any other information lodged in support of the application, the Construction and Environmental Management Plan approved under condition 15 and any other plans approved under condition 15;

- (b) Require the ECoW to report to the Company's nominated construction project manager any incidences of non-compliance with the ECoW works at the earliest practical opportunity;
 - (c) Require the ECoW to submit a monthly report to the Planning Authority summarising works undertaken on site; and
 - (d) Require the ECoW to report to the Planning Authority any incidences of non-compliance with the ECoW Works at the earliest practical opportunity.
- (2) The ECoW shall be appointed on the approved terms throughout the period from Commencement of Development, throughout any period of construction activity and during any period of post construction restoration works approved in terms of condition 15.
- (3) No later than 18 months prior to decommissioning of the Development or the expiration of this consent (whichever is the earlier), the Company shall submit details of the terms of appointment by the Company of an independent ECoW throughout the decommissioning, restoration and aftercare phases of the Development to the Planning Authority for approval in consultation with NatureScot and SEPA. The ECoW shall be appointed on the approved terms throughout the decommissioning, restoration and aftercare phases of the Development.

Reason: *To secure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Development.*

15. Construction Environmental Management Plan

- (1) There shall be no Commencement of Development unless and until a Construction and Environmental Management Plan (CEMP) detailing the matters set out in this condition with information on their timetabling, has been submitted to (at least 6 weeks in advance of works commencing) and approved in writing by the Planning Authority in consultation with NatureScot, SEPA and Scottish Water. The CEMP shall include (but shall not be limited to):
- (a) a site waste management plan (dealing with all aspects of waste produced during the construction period other than peat), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment;
 - (b) details of the formation of the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
 - (c) a felling and tree management plan, which includes details of the handling, storage and disposal of forestry waste;
 - (d) details of borrow pit excavation and restoration, including analytical testing of stone to ensure its suitability;
 - (e) a dust management plan;

- (f) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
- (g) a pollution prevention and control method statement, including arrangements for the storage of oil and fuel on the site;
- (h) soil storage and management;
- (i) a peat management plan, which incorporates the measures set out in Section A.10.6 of Technical Appendix 10.1 to the Environmental Statement;
- (j) a species protection plan based on surveys for protected species (including birds) carried out no longer than 8 months prior to submission of the plan;
- (k) a drainage management strategy, demonstrating how all surface and waste water arising during and after development will be managed and prevented from polluting any watercourses or sources;
- (l) sewage disposal and treatment;
- (m) temporary site illumination;
- (n) the construction of the access into the site and the creation and maintenance of associated visibility splays;
- (o) the method of construction of the crane pads;
- (p) the method of construction of the turbine foundations;
- (q) the method of working cable trenches;
- (r) the method of construction and erection of the wind turbines and meteorological masts;
- (s) details of watercourse crossings;
- (t) post-construction restoration / reinstatement of the working areas not required during the operation of the Development, including construction access tracks, borrow pits, construction compound and other construction areas. Wherever possible, reinstatement is to be achieved by the careful use of turfs removed prior to construction works. Details should include all seed mixes to be used for the reinstatement of vegetation;
- (u) a wetland ecosystems (Ground Water Dependent Terrestrial Systems) survey and mitigation plan;
- (v) pre-construction surveys for protected species and the development of any required mitigation, to be agreed with NatureScot;
- (w) an integrated water quality, macroinvertebrate and fish population monitoring programme. This should include a baseline electro-fishing and water quality survey which shall be carried out at such locations as are agreed in writing with the planning authority in consultation with the Galloway Fisheries Trust, SEPA and Scottish Water, to determine the presence of any migratory fish and the water quality of watercourses. Electro-fishing check surveys shall be undertaken at those same locations throughout the construction and operation stages at agreed intervals. The results of the surveys shall be submitted to the planning authority. Should migratory fish or water quality be likely to be adversely affected by the proposed works, mitigation measures to avoid those adverse impacts shall be submitted for the written approval of the planning authority and implemented thereafter.
- (x) during the archaeological walkover survey, the marking on operational maps the historical marker cairns on Waterhead Hill to avoid the chance of accidental damage and the provision of a toolbox talk and documentation about how to

recognise archaeological features, who to notify and how to proceed in the event of unexpected archaeological remains.

- (y) a Construction Noise Management Plan (CNMP) which includes an assessment of noise from the proposed construction activities (including, amongst other things, noise created during night time hours (23:00 – 07:00) as a result of operations, construction and or deliveries at the site, the selection of plant used with reference to noise created by the plant, and noise created by bleeping type warning devices on the plant), details of noise mitigation measures where required and includes a site complaint investigation procedure
 - (z) a protocol for the measurement and assessment of ground borne vibration from blast activities;
 - (aa) measures for the protection of Drinking Water Protected Areas and private water supplies, including notification requirements in respect of pollution incidents, to be agreed in advance with Scottish Water; and,
 - (bb) an existing track condition report which shall identify the lengths of existing track and the condition of them. It shall include the details of works required to bring the identified tracks to a standard which is consistent with that of the new access tracks under (b) of this condition to include the details of siltration run off and the maintenance of them during the construction and post construction works of the proposed development.
- (2) The Development shall be implemented thereafter in accordance with the approved CEMP unless otherwise approved in advance in writing by the Planning Authority in consultation with NatureScot, SEPA and Scottish Water.

Reason: *To ensure that all construction operations are carried out in a manner that minimises their impact on amenity and the environment, and that the mitigation measures contained in the Environmental Statement accompanying the application, or as otherwise agreed, are fully implemented.*

16. Construction Hours

- (1) Construction work which is audible from any noise-sensitive receptor shall only take place on the site between the hours of 07.00 to 19.00 on Monday to Friday inclusive and 07.00 to 16.00 on Saturdays, with no construction work taking place on a Sunday or on Bank Holidays or Public Holidays. Outwith these specified hours, development on the site shall be limited to turbine erection, maintenance, emergency works, dust suppression, and the testing of plant and equipment, unless otherwise approved in advance in writing by the planning authority.
- (2) HGV movements to and from the site (excluding abnormal loads) during construction of the wind farm shall be limited to 07.00 to 19.00 Monday to Friday, and 07.00 to 16.00 on Saturdays, with no HGV movements to for from site taking place on a Sunday or on Bank Holidays or Public Holidays.

Reason: *In the interests of local amenity.*

17. Traffic Management

- (1) There shall be no Commencement of Development unless and until a Traffic Management (and enabling works) Plan has been submitted to and approved in writing by the Planning Authority. The Traffic Management Plan shall include:
 - (a) the routing of all traffic associated with the Development on the local road network;
 - (b) the method of construction for the overrun areas and how the existing public road network will be stabilised adjacent to the overrun areas;
 - (c) measures to ensure that the specified routes are adhered to, including monitoring procedures;
 - (d) details of all signage and lining arrangements to be put in place;
 - (e) provisions for emergency vehicle access;
 - (f) identification of a nominated person to whom any road safety issues can be referred; and
 - (g) a plan for access by vehicles carrying abnormal loads, including the number and timing of deliveries, the length, width, axle configuration of all extraordinary traffic accessing the site.
- (2) The approved Traffic Management (and enabling works) Plan shall thereafter be implemented in full, unless otherwise agreed in advance in writing with the Planning Authority.

Reason: *In the interests of road safety and to ensure that abnormal loads access the site in a safe manner.*

18. Transport of Abnormal Loads

- (1) Prior to commencement of deliveries to site, the proposed route for any abnormal loads on the trunk road network must be approved by the trunk roads authority prior to the movement of any abnormal load. Any accommodation measures required including the removal of street furniture, junction widening, traffic management must similarly be approved.
- (2) During the delivery period of the wind turbine construction materials any additional signing or temporary traffic control measures deemed necessary due to the size or length of any loads being delivered or removed must be undertaken by a recognised QA traffic management consultant, to be approved by Transport Scotland before delivery commences.

Reason: *To minimise interference and maintain the safety and free flow of traffic on the Trunk Road as a result of the traffic moving to and from the development. To ensure that the transportation will not have any detrimental effect on the road and structures along the route.*

19. Programme of Archaeological Works

- (1) There shall be no Commencement of Development until the Planning Authority has approved the terms of a programme of archaeological works to be observed during construction of the Development, to include measures to be taken to protect and preserve any features of archaeological interest in situ and the recording and recovery of archaeological features which cannot be so preserved.
- (2) The approved scheme of archaeological works shall thereafter be implemented in full.

Reason: *To ensure the protection or recording of archaeological features on the site.*

20. Replanting of Forestry

Prior to Commencement of Development a scheme to compensate for the removal of up to 28.87 hectares of existing woodland ("the Scheme") shall be submitted to the Planning Authority and thereafter the Scheme shall be implemented as approved in writing by the Planning Authority in consultation with Scottish Forestry

Reason: *To secure replanting to mitigate against effects of deforestation arising from the Development.*

21. Television Reception

- (1) There shall be no Commencement of Development until a Television Reception Mitigation Plan has been submitted to, and approved in writing by, the Planning Authority. The Television Reception Mitigation Plan shall provide for a baseline television reception survey to be carried out prior to the installation of any turbine forming part of the Development, the results of which shall be submitted to the Planning Authority.
- (2) The approved Television Reception Mitigation Plan shall thereafter be implemented in full.
- (3) Any claim by any individual person regarding television picture loss or interference at their house, business premises or other building, made during the period from installation of any turbine forming part of the Development to the date falling twelve months after the date of Final Commissioning, shall be investigated by a qualified engineer appointed by the windfarm operator and the results shall be submitted to the Planning Authority. Should any impairment to the television signal be attributable to the Development, the Company shall remedy such impairment so that the standard of reception at the affected property is equivalent to the baseline television reception.

Reason: *To ensure local television services are sustained during the construction and operation of this development.*

22. Redundant Turbines

- (1) If one or more turbine fails to generate electricity for a continuous period of 12 months, then unless otherwise agreed in writing by the Planning Authority, the Company shall, no later than 14 days after the date of expiry of the 12 month period, submit a scheme to the Planning Authority for its written approval setting out how the relevant turbine(s) and associated infrastructure will be removed from the site and the ground restored including a timetable for its full implementation.
- (2) The scheme shall have regard to the decommissioning, restoration and aftercare method statement approved under condition 26. The approved scheme shall be implemented in accordance with the approved timetable.

Reason: *To ensure that any redundant wind turbine is removed from the site, in the interests of safety, amenity and environmental protection.*

23. Aviation Information

Prior to the Commencement of Development, the Company shall provide the Planning Authority, Ministry of Defence, Defence Geographic Centre and NATS with the following information:

- (a) the date of the expected commencement of each stage of construction;
- (b) the height above ground level of the tallest structure forming part of the Development;
- (c) the maximum extension height of any construction equipment; and
- (d) the position of the turbines and masts in latitude and longitude.

Reason: *In the interests of aviation safety.*

24. Aviation Lighting – Waterhead Hill

- (1) Prior to the erection of the first wind turbine the Company shall submit a scheme for aviation lighting for the Development to the Planning Authority for written approval. The scheme shall include details of infra-red aviation lighting to be applied. No lighting other than that described in the scheme may be applied at the site, other than as required by law.
- (2) No turbines shall be erected on site until the scheme has been approved in writing. The Development shall thereafter be operated fully in accordance with the approved scheme.

Reason: *In the interests of aviation safety.*

25. Aviation Lighting – Meaul Hill

No turbines within the Meaul Hill Cluster shall be erected until a scheme for aviation lighting has been submitted to and approved by the Planning Authority, in consultation with the Civil Aviation Authority. The scheme shall thereafter be implemented as approved.

Reason: *In the interests of aviation safety.*

26. Decommissioning, Restoration and Aftercare

- (1) The Development will be decommissioned and will cease to generate electricity by no later than the date falling 35 years from the date of Final Commissioning. The total period for restoration of the Site in accordance with this condition shall not exceed three years after the date of decommissioning without prior written approval of the Scottish Ministers in consultation with the Planning Authority.
- (2) There shall be no Commencement of Development unless and until a decommissioning, restoration and aftercare method statement has been submitted to and approved in writing by the Planning Authority in consultation with NatureScot and SEPA. The method statement shall include measures for the decommissioning of the Development, restoration and aftercare of the site and will include, without limitation, proposals for the removal of the above ground elements of the Development, the treatment of ground surfaces, the management and timing of the works and environmental management provisions.
- (3) No later than three years prior to decommissioning of the Development or the expiration of this consent (whichever is the earlier) a detailed decommissioning, restoration and aftercare method statement, based upon the principles of the approved decommissioning, restoration and aftercare method statement, shall be submitted to the Planning Authority for written approval in consultation with NatureScot and SEPA. The detailed decommissioning, restoration and aftercare method statement will provide updated and detailed proposals for the removal of above ground elements of the Development, the treatment of ground surfaces, the management and timing of the works and environment management provisions. It should include (but shall not be limited to):
 - (a) a site waste management plan (dealing with all aspects of waste produced during the decommissioning, restoration and aftercare phases);
 - (b) details of the formation of new features required to facilitate the decommissioning and restoration including but not limited to: the construction compound, welfare facilities, any areas of hardstanding, turning areas, internal access tracks, car parking, material stockpiles, oil storage, lighting columns, and any construction compound boundary fencing;
 - (c) a dust management plan;

- (d) details of measures to be taken to prevent loose or deleterious material being deposited on the local road network including wheel cleaning and lorry sheeting facilities, and measures to clean the site entrances and the adjacent local road network;
 - (e) a pollution prevention and control method statement, including arrangements for the storage and management of oil and fuel on the site;
 - (f) soil storage and management;
 - (g) a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water;
 - (h) sewage disposal and treatment;
 - (i) temporary site illumination;
 - (j) the construction of any temporary access into the site and the creation and maintenance of associated visibility splays;
 - (k) details of watercourse crossings;
 - (l) a species protection plan based on surveys for protected species (including birds) carried out no longer than 18 months prior to submission of the plan).
- (4) The Development shall be decommissioned, site restored and aftercare thereafter undertaken in accordance with the detailed decommissioning, restoration and aftercare method statement as approved, unless otherwise agreed in writing in advance with the Planning Authority in consultation with NatureScot and SEPA.

Reason: *To ensure the decommissioning and removal of the Development in an appropriate and environmentally acceptable manner and the restoration and aftercare of the site, in the interests of safety, amenity and environmental protection.*

27. Financial Guarantee

- (1) There shall be no Commencement of Development until the Company has delivered a bond or other form of financial guarantee, in terms acceptable to the Planning Authority which secures the cost of performance of all decommissioning, restoration and aftercare obligations as contained in the decommissioning, restoration and aftercare method statement, to the Planning Authority. The financial guarantee shall thereafter be maintained in favour of the Planning Authority until the date of completion of all restoration and aftercare obligations.
- (2) The value of the financial guarantee shall be determined by a suitably qualified independent professional as being sufficient to meet the costs of all decommissioning, restoration and aftercare obligations contained in the decommissioning, restoration and aftercare method statement. The value of the

financial guarantee shall be reviewed by a suitably qualified independent professional no less than every five years and increased or decreased to take account of any variation in costs of compliance with restoration and aftercare obligations and best practice prevailing at the time of each review.

Reason: *To ensure that there are sufficient funds to secure performance of the decommissioning, restoration and aftercare conditions attached to this deemed planning permission in the event of default by the Company.*

28. Site Inspection Strategy

(1) Prior to the Date of Final Commissioning, the Company must submit a draft Site Inspection Strategy (SIS), for the written approval of the Planning Authority. This shall set out details for the provision of site inspections and accompanying Site Inspection Reports (SIR) to be carried out at 25 and 30 years of operation from the Date of Final Commissioning. At least one month in advance of submitting the SIR, the scope of content shall be agreed with the Planning Authority. The SIR shall include, but not be limited to:

(a) Requirements to demonstrate that the infrastructure of the Development is still fit for purpose and operating in accordance with conditions 8 and 29; and

(b) An engineering report which details the condition of tracks, turbine foundations and the wind turbine generators and sets out the requirements and the programme for the implementation for any remedial measures which may be required.

(2) Thereafter the SIS and SIR shall be implemented in full unless otherwise agreed in advance in writing by the Planning Authority.

Reason: *To ensure the condition of the infrastructure associated with the Development is compliant with the ES, condition 8 and condition 29 and is to ensure the Development is being monitored at regular intervals throughout its operation*

29. Noise

(1) The rating level of noise immission from the combined effects of the wind turbines hereby permitted (including the application of any tonal penalty), when determined in accordance with the attached Guidance Notes, shall not exceed the values for the relevant integer wind speeds set out in or derived from Tables 1 and 2 attached to these conditions.

(2) At Moor Cottage only, the rating level of noise immissions from the combined effects of the wind turbines hereby permitted, operating in conjunction with the consented or operational turbines of Windy Standard I and II Wind Farms (APP 02/N/2/0001) and South Kyle Wind Farm (APP 13/0001/S36) (including the application of any tonal penalty), when determined in accordance with the attached Guidance Notes shall not exceed the values for the relevant integer wind speed set out in Tables 3 and 4 attached to these conditions. Following complaint, in the event that the level of noise immissions (including the application of any tonal

penalty) exceeds the values in Tables 3 and 4, the operator of Windy Standard III Wind Farm shall undertake appropriate mitigation to reduce turbine noise immissions such that the limits in Tables 3 and 4 are met, or such that noise from the turbines hereby permitted (including the application of any tonal penalty) meets the levels set out in Tables 5 and 6, and:

- (a) Prior to the operation of the wind turbines, the wind farm operator shall submit to the Planning Authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the Planning Authority.
- (b) Within 21 days from receipt of a written request of the Planning Authority, following a complaint to it alleging noise disturbance at a dwelling, the wind farm operator shall, at its expense, employ an independent consultant approved by the Planning Authority to assess the level of noise immission from the wind farm at the complainant's property (or a suitable alternative location agreed in writing with the Planning Authority) in accordance with the procedures described in the attached Guidance Notes. The written request from the Planning Authority shall set out at least the date, time and location that the complaint relates to. Within 14 days of receipt of the written request of the Planning Authority made under this paragraph (B), the wind farm operator shall provide the information relevant to the complaint logged in accordance with paragraph (H) to the Planning Authority in the format set out in Guidance Note 1(e).
- (c) Where there is more than one property at a location specified in Tables 1 and 2 attached to this condition, the noise limits set for that location shall apply to all dwellings at that location. Where a dwelling to which a complaint is related is not identified by name or location in the Tables attached to these conditions, the wind farm operator shall submit to the Planning Authority for written approval proposed noise limits selected from those listed in the Tables to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The submission of the proposed noise limits to the Planning Authority shall include a written justification of the choice of the representative background noise environment provided by the independent consultant. The rating level of noise immission resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Planning Authority for the complainant's dwelling.
- (d) Prior to the commencement of any measurements by the independent consultant to be undertaken in accordance with these conditions, the wind farm operator shall submit to the Planning Authority for written approval the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken. Where the proposed measurement location is close to the wind turbines, rather than at the complainant's property (to improve the signal to noise ratio), then the

operator's submission shall include a method to determine compliance with the limits at the complainant's property based on the noise levels measured at the agreed location (the Alternative Method). Details of the Alternative Method together with any associated guidance notes deemed necessary, shall be submitted to and agreed in writing by the Planning Authority prior to the commencement of any measurements. Measurements to assess compliance with the noise limits set out in the Tables attached to these conditions or approved by the Planning Authority pursuant to paragraph (C) of this condition shall be undertaken at the measurement location approved in writing by the Planning Authority.

- (e) Prior to the submission of the independent consultant's assessment of the rating level of noise immission pursuant to paragraph (F) of this condition, the wind farm operator shall submit to the Planning Authority for written approval a proposed assessment protocol setting out the following:
- (i) the range of meteorological and operational conditions (the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immission.
 - (ii) a reasoned assessment as to whether the noise giving rise to the complaint contains or is likely to contain a tonal component.

The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the information provided in the written request of the Planning Authority under paragraph (B), and such others as the independent consultant considers necessary to fully assess the noise at the complainant's property. The assessment of the rating level of noise immission shall be undertaken in accordance with the assessment protocol approved in writing by the Planning Authority and the attached Guidance Notes.

- (f) The wind farm operator shall provide to the Planning Authority the independent consultant's assessment of the rating level of noise immission undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Planning Authority made under paragraph (B) of this condition unless the time limit is extended in writing by the Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Planning Authority with the independent consultant's assessment of the rating level of noise immission.
- (g) Where a further assessment of the rating level of noise immission from the wind farm is required pursuant to Guidance Note 4(c) of the attached Guidance Notes, the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (F) above unless the time limit for the submission of the further assessment has been extended in writing by the Planning Authority.

(h) The wind farm operator shall continuously log power production, turbine rotor revolutions per minute, wind speed and wind direction, all in accordance with Guidance Note 1(d) of the attached Guidance Notes. The data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) of the attached Guidance Notes to the Planning Authority on its request within 14 days of receipt in writing of such a request.

Note: For the purposes of this condition, a “dwelling” is a building within Use Class 9 of the Town and Country Planning (Use Classes) (Scotland) Order 1997 which lawfully exists or had planning permission at the date of this consent.

Table 1 – Between 07:00 and 23:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Waterhead (254530, 599230)	30	30	30	30	30	30	30	30	30	30	30	30
Knockengoroch (255533, 597111)	40	40	40	40	40	39.1	38.6	38.3	38.3	38.3	38.3	38.3
Netherbow (255465, 597861)	40	40	40	40	39.5	38.6	37.4	36.9	36.9	36.9	36.9	36.9
Brownhill (255900, 602600)	35	35	35	35	35	35	35	35	35	35	35	35

Table 2 – Between 23:00 and 07:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Waterhead (254530, 599230)	33	33	33	33	33	33	33	33	33	33	33	33
Knockengoroch (255533, 597111)	43	43	43	43	43	43	42.4	42.3	42.3	42.3	42.3	42.3

Netherbow (255465, 597861)	43	43	43	43	43	42.3	41.9	41.7	41.7	41.7	41.7	41.7
Brownhill (255900, 602600)	35	35	35	35	35	35	35	35	35	35	35	35

Table 3 – Between 07:00 and 23:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Moor Cottage (256963, 603528)	45	45	45	45	45	45	45	45	45	45	45	45

Table 4 – Between 23:00 and 07:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Moor Cottage (256963, 603528)	45	45	45	45	45	45	45	45	45	45	45	45

Table 5 – Between 07:00 and 23:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Moor Cottage (256963, 603528)	35	35	35	35	35	35	35	35	35	35	35	35

Table 6 – Between 23:00 and 07:00 – Noise Level dB LA90,10-minute

Location (easting, northing grid coordinates)	Standardised wind speed at 10 meter height (m/s) within the site averaged over 10-minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Moor Cottage (256963, 603528)	35	35	35	35	35	35	35	35	35	35	35	35

Note to Tables 1 - 6: The geographical coordinates references set out in these tables are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies.

The standardised wind speed at 10 metres height within the site refers to wind speed at 10 metres height derived from those measured at hub height, calculated in accordance with the method given in the Guidance Notes.

Note to Tables 5 and 6: The noise limits detailed in Tables 5 and 6 assume that South Kyle Wind Farm is built and operated in accordance with its consent (APP 13/0001/S36). The noise limits detailed in Tables 5 and 6 can be recalculated, if necessary, to consider any consented variations to that consent. Any update to the noise limits shall be submitted to, and approved in writing by, the Planning Authority.

The development shall operate in accordance with the limits contained in this condition unless the Planning Authority gives its written consent to an updated set of noise limits, in which case the updated noise limits shall apply.

Reason to protect nearby residents from undue noise and disturbance. To ensure that noise limits are not exceeded and to enable prompt investigation of complaints.

Guidance Notes for Noise Condition

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immission from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Note 3 with any necessary correction for residual background noise levels in accordance with Note 4. Reference to ETSU-R-97 refers to the publication entitled “The Assessment and Rating of Noise from Wind Farms” (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

Note 1

- (a) Values of the LA90,10-minute noise statistic should be measured at the complainant’s property (or an approved alternative representative location), using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1

quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated before and after each set of measurements, using a calibrator meeting BS EN 60945:2003 “Electroacoustics – sound calibrators” Class 1 with PTB Type Approval (or the equivalent UK adopted standard in force at the time of the measurements) and the results shall be recorded. Measurements shall be undertaken in such a manner to enable a tonal penalty to be calculated and applied in accordance with Guidance Note 3.

- (b) The microphone shall be mounted at 1.2 - 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Planning Authority, and placed outside the complainant’s dwelling. Measurements should be made in “free field” conditions. To achieve this, the microphone shall be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall submit for the written approval of the Planning Authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.
- (c) The LA90,10-minute measurements should be synchronised with measurements of the 10-minute arithmetic mean wind speed and wind direction data and with operational data logged in accordance with Guidance Note 1(d) and rain data logged in accordance with Note 1(f).
- (d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second (m/s) and arithmetic mean wind direction in degrees from north in each successive 10-minute period in a manner to be agreed in writing with the planning authority. Each 10 minute arithmetic average mean wind speed data as measured or calculated at turbine hub height shall be ‘standardised’ to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data which is correlated with the noise measurements determined as valid in accordance with Note 2(b), such correlation to be undertaken in the manner described in Note 2(c). All 10-minute periods shall commence on the hour and in 10-minute increments thereafter synchronised with Greenwich Mean Time and adjusted to British Summer Time where necessary.
- (e) Data provided to the Planning Authority in accordance with paragraphs (E) (F) (G) and (H) of the noise condition shall be provided in comma separated values in electronic format with the exception of data collected to assess tonal noise (if required) which shall be provided in a format to be agreed in writing with the Planning Authority.

- (f) A data logging rain gauge shall be installed in the course of the independent consultant undertaking an assessment of the level of noise immission. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Note 2

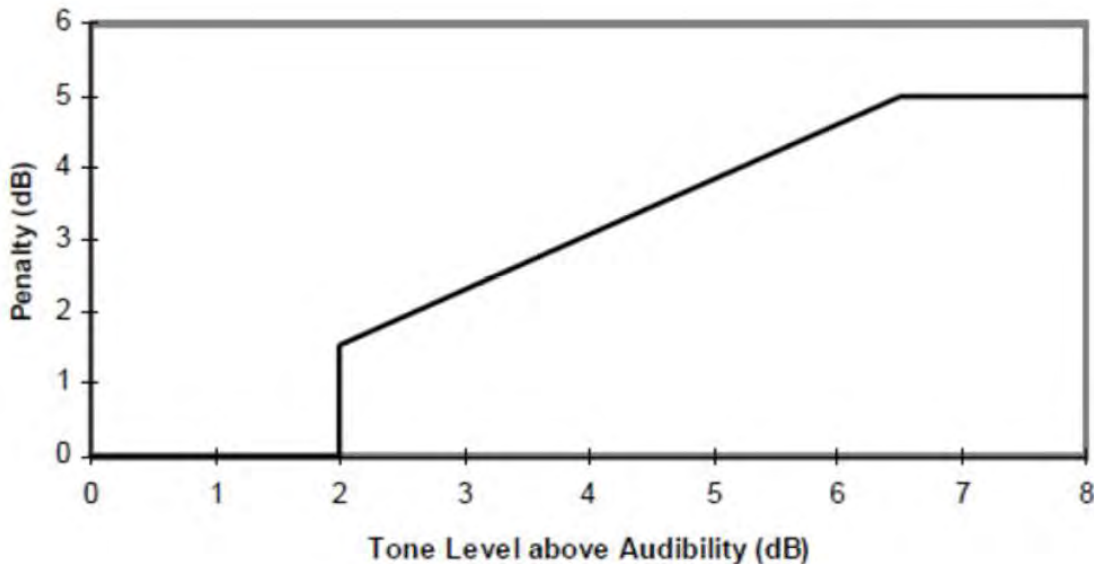
- (a) The noise measurements should be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b).
- (b) Valid data points are those measured during the conditions set out in the assessment protocol approved by the Planning Authority under paragraph (E) of the noise condition but excluding any periods of rainfall measured in accordance with Note 1(f).
- (c) Values of the LA90,10-minute noise measurements and corresponding values of the 10-minute standardised ten metre height wind speed for those data points considered valid in accordance with Note 2(b) shall be plotted on an XY chart with noise level on the Y-axis and wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) shall be fitted to the data points to define the wind farm noise level at each integer speed.

Note 3

- (a) Where, in accordance with the approved assessment protocol under paragraph (E) of the noise condition, noise immission at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty shall be calculated and applied using the following rating procedure.
- (b) For each 10-minute interval for which LA90,10-minute data have been determined as valid in accordance with Note 2, a tonal assessment shall be performed on noise immission during 2-minutes of each 10-minute period. The 2-minute periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from the standard procedure shall be reported.
- (c) For each of the 2-minute samples the tone level above audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104 -109 of ETSU-R-97.
- (d) The tone level above audibility shall be plotted against wind speed for each of the 2-minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.
- (e) A least squares "best fit" linear regression shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the

value of the “best fit” line fitted to values within $\pm 0.5\text{m/s}$ of each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Note 2.

- (f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below derived from the average tone level above audibility for each integer wind speed.



Note 4

- (a) If a tonal penalty is to be applied in accordance with Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Note 3 at each integer wind speed within the range set out in the approved assessment protocol under paragraph (E) of the noise condition.
- (b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Note 2.
- (c) If the rating level at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Planning Authority for a complainant’s dwelling in accordance with paragraph (C) of the noise condition then no further action is necessary. In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant’s dwelling approved in accordance with paragraph (C) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

- (i) Repeating the steps in Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range set out in the approved noise assessment protocol under paragraph (E) of this condition.
- (ii) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

- (iii) The rating level shall be re-calculated by adding the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.
- (iv) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note (iii) above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (C) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Planning Authority for a complainant's dwelling in accordance with paragraph (C) of the noise condition then the development fails to comply with the conditions.

Definitions

“The Application” means the application submitted by the Company on 6 December 2016.

“Bank Holiday” means;

- New Year's Day, if it is not a Sunday or, if it is a Sunday, 3rd January; • 2nd January, if it is not a Sunday or, if it is a Sunday, 3rd January;
- Good Friday;
- The first Monday in May;
- The first Monday in August;
- 30th November, if it is not a Saturday or Sunday or, if it is a Saturday or Sunday, the first Monday following that day;
- Christmas Day, if it is not a Sunday or if it is a Sunday, 27th December; and
- Boxing Day, if it is not a Sunday or, if it is a Sunday, the 27th December.

“Commencement of Development” means the date on which Development shall be taken as begun in accordance with section 27 of the Town and Country Planning (Scotland) Act 1997.

“Company” means Brockloch Rig III Ltd, company registration number SC295868 and registered address C/o Harper Macleod LLP, The Ca'd'oro, Glasgow, G1 3PE or such other person for the time being entitled to the benefit of the consent under section 36 of the Electricity Act 1989.

“Development” means Windy Standard III Wind Farm authorised by this consent and deemed planning permission.

“dwelling” means a building within Use Class 9 of the Town and Country Planning (Use Classes) (Scotland) Order 1997 which lawfully exists or had planning permission at the date of this consent and deemed planning permission.

“Final Commissioning” means the earlier of (a) the date on which electricity is exported to the grid on a commercial basis from the last of the wind turbines forming part of the Development erected in accordance with this consent; or (b) the date falling 18 months from the date of First Commissioning unless a longer period is agreed in writing in advance with the Planning Authority.

“First Commissioning” means the date on which electricity is first exported to the grid network on a commercial basis from any of the wind turbines forming part of the Development.

“HES” means Historic Environment Scotland

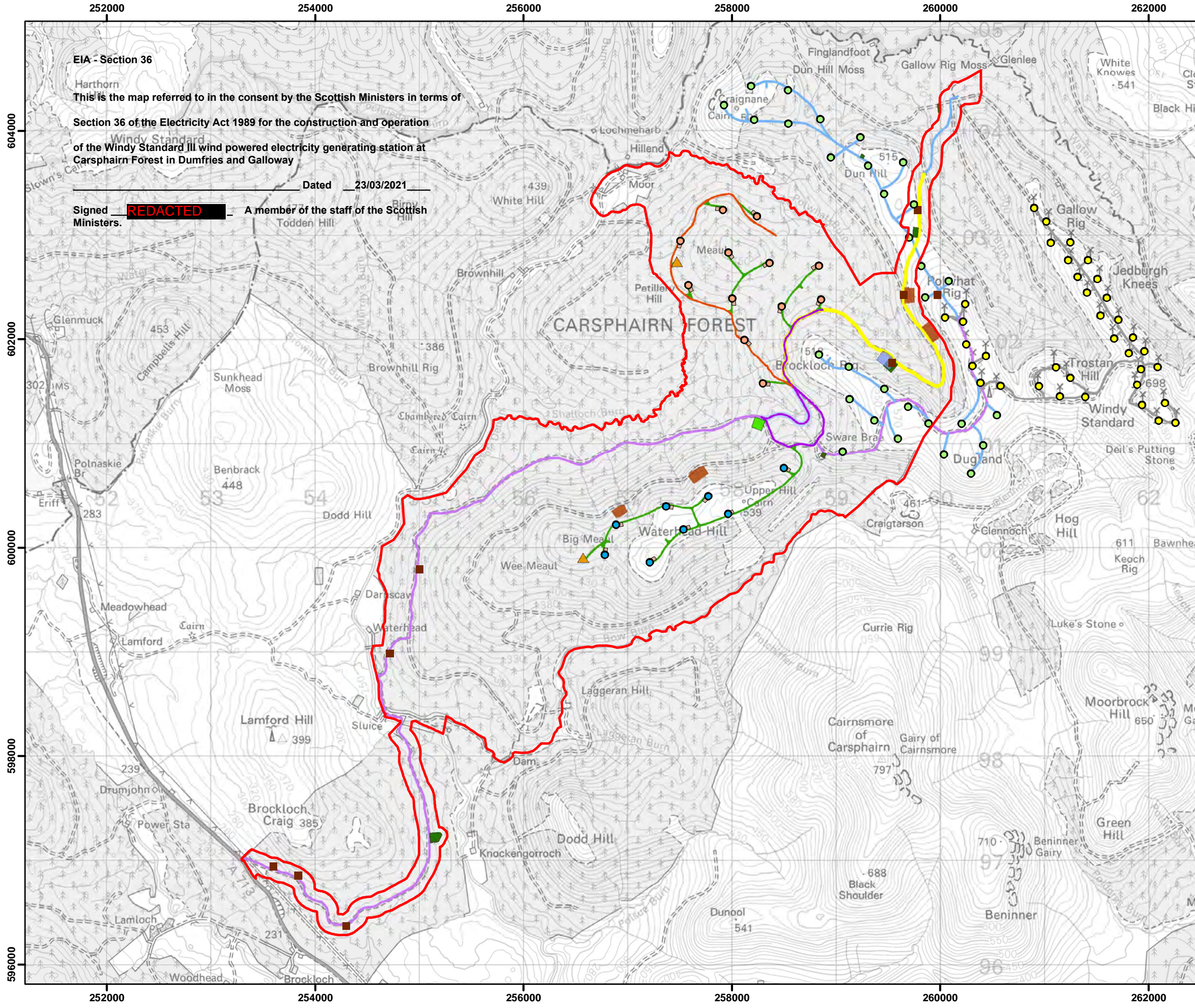
“Meaul Hill Cluster” means the turbines identified in ES Figure 3.6 as 177.5 m tip height.

“NatureScot” means Scottish Natural Heritage, acting under its operating name NatureScot.

“Public Holiday” means Easter Monday and the third Monday in September.

“SEPA” means the Scottish Environmental Protection Agency

Annex 3



EIA - Section 36
 Harthorn
 This is the map referred to in the consent by the Scottish Ministers in terms of
 Section 36 of the Electricity Act 1989 for the construction and operation
 of the Windy Standard III wind powered electricity generating station at
 Carsphairn Forest in Dumfries and Galloway

Dated 23/03/2021

Signed **REDACTED** A member of the staff of the Scottish
 Ministers.

Project:
**Windy Standard III,
 Dumfries & Galloway**

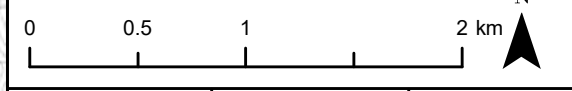
Title:
Planning Application Map

- Key**
- Planning Application Boundary
 - Windy Standard III proposed infrastructure**
 - Proposed Windy Standard III turbine location (125 m tip height)
 - Proposed Windy Standard III turbine location (177.5 m tip height)
 - ▲ Proposed permanent anemometry mast
 - Proposed new track
 - Existing track to be upgraded
 - Consented forest track to be upgraded
 - Proposed crane pad location
 - Proposed construction compound location
 - Proposed batching plant location
 - Indicative proposed borrow pit search area
 - Windy Standard I and II existing and consented infrastructure**
 - Windy Standard I turbine location
 - Windy Standard II turbine location
 - Existing construction compound
 - Existing borrow pit location
 - Windy Standard I & II tracks**
 - Existing WSI track
 - Existing track to be upgraded
 - Consented WSI track
 - Consented forest track
 - Transformer route

Notes:

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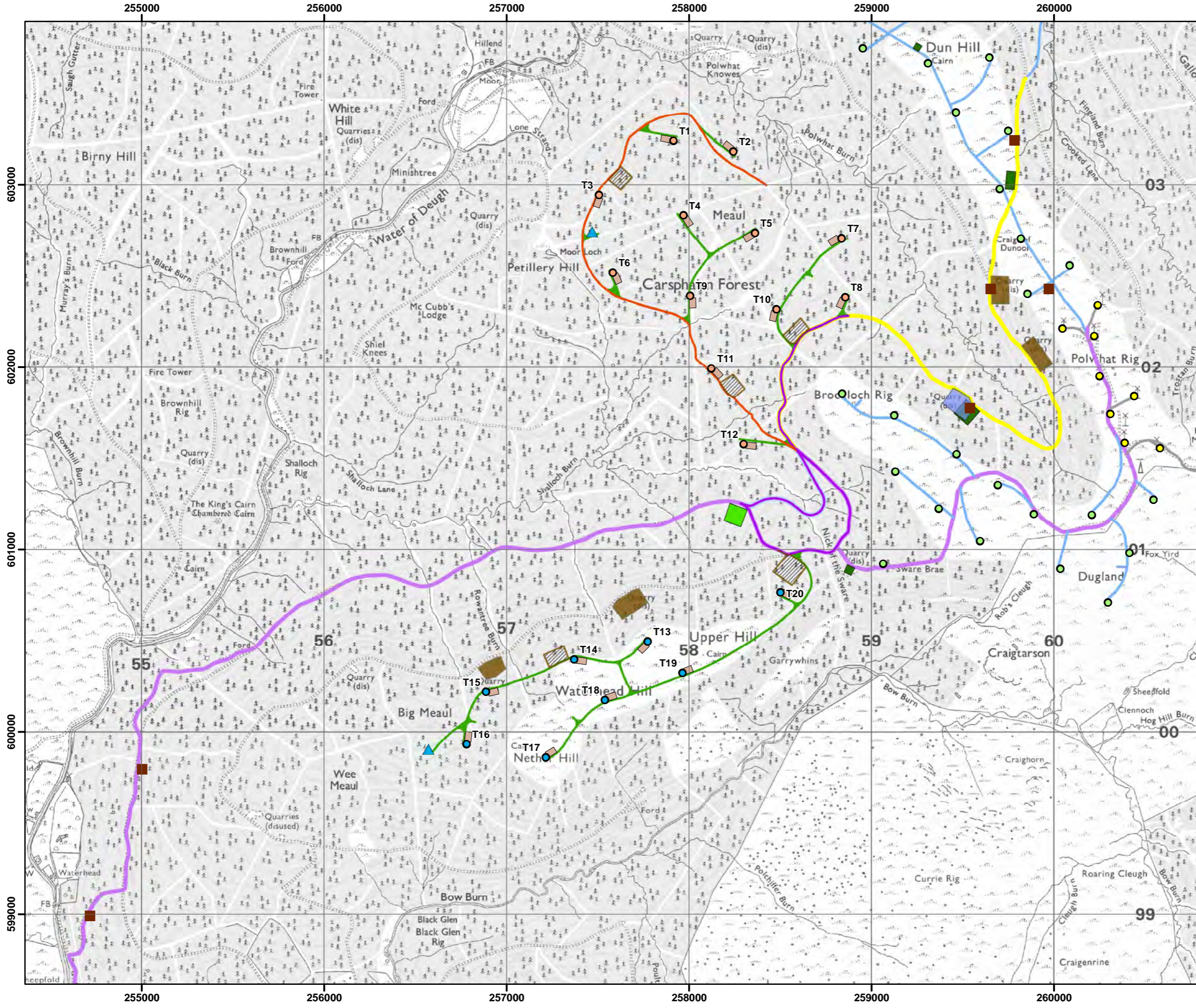


Date: 17-08-15 Prepared by: IW Checked by: MS

Ref: GB200532_3_M_331_A Layout: 3_031214_20t_A

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 The Ca' d'Oro
 45 Gordon Street
 Glasgow
 G1 3PE



Project:
**Windy Standard III,
 Dumfries & Galloway**

Title:
**ES Figure 1.2: Proposed
 Site Layout**

- Key**
- Windy Standard III proposed infrastructure
 - Proposed Windy Standard III turbine location (125 m tip height)
 - Proposed Windy Standard III turbine location (177.5 m tip height)
 - ▲ Proposed permanent anemometry mast
 - Proposed new track
 - Existing track to be upgraded
 - Consented forest track to be upgraded
 - Proposed crane pad location
 - Proposed construction compound location
 - Indicative proposed borrow pit search area
 - Additional borrow pit potential search area
 - Proposed batching plant location
 - Windy Standard I & II existing and consented infrastructure
 - Windy Standard I turbine location
 - Windy Standard II turbine location
 - Existing construction compound
 - Existing borrow pit location
 - Windy Standard I & II tracks
 - Existing WSI track
 - Existing track to be upgraded
 - Consented WSII track
 - Consented forest track
 - Transformer route

Notes:

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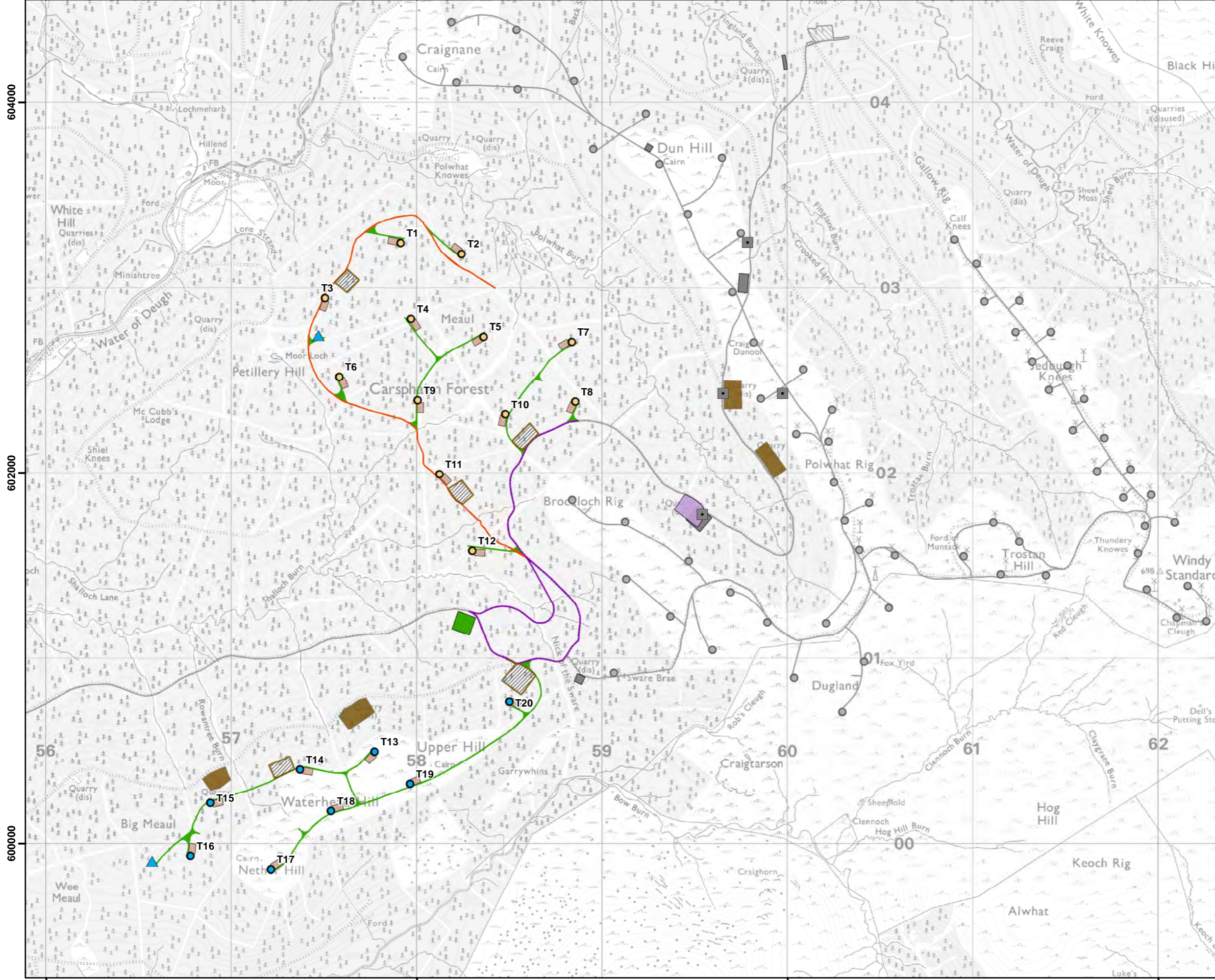
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256000 258000 260000 262000



604000

602000

600000

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Project:
**Windy Standard III,
 Dumfries & Galloway**

Title:
**ES Figure 3.6: Final Layout
 (20 Turbines)**

- Key**
- Proposed Windy Standard III turbine location (125 m tip height)
 - Proposed Windy Standard III turbine location (177.5 m tip height)
 - ▲ Proposed permanent anemometry mast
 - Proposed crane pad location
 - Proposed new track
 - Existing track to be upgraded
 - Consented forest track to be upgraded
 - Proposed construction compound location
 - Proposed batching plant location
 - Indicative proposed borrow pit area
 - Additional borrow pit potential search area
- WSI & WSII existing and consented infrastructure**
- Windy Standard I & II turbine location
 - Windy Standard II turbine location
 - Windy Standard I & II tracks
 - Substation and compound area
 - Existing construction compound
 - Existing borrow pit location

Notes:

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