



**SCOTTISHPOWER
RENEWABLES**

East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Responses to Examining Authority's Written Questions 2

Volume 2 – 2.0 Overarching, general and cross-topic questions

Applicants: East Anglia ONE North Limited and East Anglia TWO Limited
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Applicable to East Anglia ONE North and East Anglia TWO



Revision Summary				
Rev	Date	Prepared by	Checked by	Approved by
001	24/02/2020	Paolo Pizzolla	Lesley Jamieson / Ian Mackay	Rich Morris

Description of Revisions			
Rev	Page	Section	Description
001	n/a	n/a	Final for Deadline 6



Glossary of Acronyms

AONB	Area of Outstanding Natural Beauty
DCO	Development Consent Order
ESC	East Suffolk Council
HVAC	High Voltage Alternating Current
NGET	National Grid Electricity Transmission
OLEMS	outline landscape and ecological management strategy
SDPS	Substations Design Principles Statement
PRoW	Public Rights of Way
SZC	Sizewell C
SCC	Suffolk County Council



Glossary of Terminology

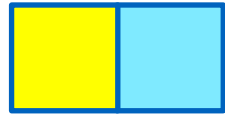
Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
Cable sealing end compound	A compound which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Cable sealing end (with circuit breaker) compound	A compound (which includes a circuit breaker) which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Construction consolidation sites	Compounds associated with the onshore works which may include elements such as hard standings, lay down and storage areas for construction materials and equipment, areas for vehicular parking, welfare facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure.
Construction operation and maintenance platform	A fixed offshore structure required for construction, operation, and maintenance personnel and activities.
The Councils	East Suffolk Council and Suffolk County Council
Development area	The area comprising the onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive, as defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017 and regulation 18 of the Conservation of Offshore Marine Habitats and Species Regulations 2017. These include candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas.
Generation Deemed Marine Licence (DML)	The deemed marine licence in respect of the generation assets set out within Schedule 13 of the draft DCO.
Horizontal directional drilling (HDD)	A method of cable installation where the cable is drilled beneath a feature without the need for trenching.
HDD temporary working area	Temporary compounds which will contain laydown, storage and work areas for HDD drilling works.



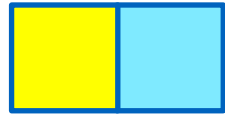
Inter-array cables	Offshore cables which link the wind turbines to each other and the offshore electrical platforms, these cables will include fibre optic cables.
Jointing bay	Underground structures constructed at intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.
Link boxes	Underground chambers within the onshore cable route housing electrical earthing links.
Meteorological mast	An offshore structure which contains metrological instruments used for wind data acquisition.
Mitigation areas	Areas captured within the onshore development area specifically for mitigating expected or anticipated impacts.
Marking buoys	Buoys to delineate spatial features / restrictions within the offshore development area.
Monitoring buoys	Buoys to monitor <i>in situ</i> condition within the windfarm, for example wave and metocean conditions.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission
National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia TWO / East Anglia ONE North project Development Consent Order but will be National Grid owned assets.
National Grid overhead line realignment works	Works required to upgrade the existing electricity pylons and overhead lines (including cable sealing end compounds and cable sealing end (with circuit breaker) compound) to transport electricity from the National Grid substation to the national electricity grid.
National Grid overhead line realignment works area	The proposed area for National Grid overhead line realignment works.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia TWO / East Anglia ONE North project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia TWO / East Anglia ONE North project Development Consent Order.
National Grid substation location	The proposed location of the National Grid substation.
Natura 2000 site	A site forming part of the network of sites made up of Special Areas of Conservation and Special Protection Areas designated respectively under the Habitats Directive and Birds Directive.
Offshore cable corridor	This is the area which will contain the offshore export cables between offshore electrical platforms and landfall.
Offshore development area	The East Anglia TWO / East Anglia ONE North windfarm site and offshore cable corridor (up to Mean High Water Springs).



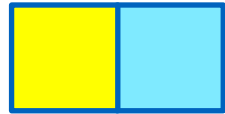
Offshore electrical infrastructure	The transmission assets required to export generated electricity to shore. This includes inter-array cables from the wind turbines to the offshore electrical platforms, offshore electrical platforms, platform link cables and export cables from the offshore electrical platforms to the landfall.
Offshore electrical platform	A fixed structure located within the windfarm area, containing electrical equipment to aggregate the power from the wind turbines and convert it into a more suitable form for export to shore.
Offshore export cables	The cables which would bring electricity from the offshore electrical platforms to the landfall. These cables will include fibre optic cables.
Offshore infrastructure	All of the offshore infrastructure including wind turbines, platforms, and cables.
Offshore platform	A collective term for the construction, operation and maintenance platform and the offshore electrical platforms.
Onshore cable corridor	The corridor within which the onshore cable route will be located.
Onshore cable route	This is the construction swathe within the onshore cable corridor which would contain onshore cables as well as temporary ground required for construction which includes cable trenches, haul road and spoil storage areas.
Onshore cables	The cables which would bring electricity from landfall to the onshore substation. The onshore cable is comprised of up to six power cables (which may be laid directly within a trench, or laid in cable ducts or protective covers), up to two fibre optic cables and up to two distributed temperature sensing cables.
Onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, landscaping and ecological mitigation areas, temporary construction facilities (such as access roads and construction consolidation sites), and the National Grid Infrastructure will be located.
Onshore infrastructure	The combined name for all of the onshore infrastructure associated with the proposed East Anglia TWO / East Anglia ONE North project from landfall to the connection to the national electricity grid.
Onshore preparation works	Activities to be undertaken prior to formal commencement of onshore construction such as pre-planting of landscaping works, archaeological investigations, environmental and engineering surveys, diversion and laying of services, and highway alterations.
Onshore substation	The East Anglia TWO / East Anglia ONE North substation and all of the electrical equipment within the onshore substation and connecting to the National Grid infrastructure.
Onshore substation location	The proposed location of the onshore substation for the proposed East Anglia TWO / East Anglia ONE North project.
Platform link cable	Electrical cable which links one or more offshore platforms. These cables will include fibre optic cables.
Safety zones	A marine area declared for the purposes of safety around a renewable energy installation or works / construction area under the Energy Act 2004.
Scour protection	Protective materials to avoid sediment being eroded away from the base of the foundations as a result of the flow of water.
Transition bay	Underground structures at the landfall that house the joints between the offshore export cables and the onshore cables.
Transmission DML	The deemed marine licence in respect of the transmission assets set out within Schedule 14 of the draft DCO.



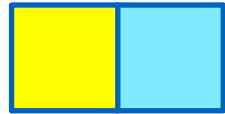
ExA. Question Ref.	Question addressed to	ExA. Question	Applicants' Response
2.0 Overarching, general and cross-topic questions			
2.0.1	Applicants and NGET	<p>Permitted Development Rights</p> <p>Class B, Part 15 of Schedule 2 of the Town and Country Planning (General Permitted Development) (England) Order 2015 concerns electricity undertakings and on the face of it appears to allow a wider range of development by statutory undertakers for the generation, transmission, distributions or supply of electricity. Such rights include, subject to restrictions within Class B1, the installation of electric lines, feeder or service pillars, transforming or switching stations, the extension or alteration of buildings on operational land and the erection of buildings for the protection of plant and machinery and any other development carried out in, on, over, or under the operational land of the undertaking.</p> <p>a) Confirm the boundaries of what would be operational land in this context, should the applications be consented.</p> <p>b) Provide further justification to support your view that permitted development rights should be retained.</p> <p>The dDCOs Commentaries on Schedule 1 Part 1 refer.</p>	<p>a) The provisions of section 263(2) of the Town and Country Planning Act 1990 is of direct relevance to this question. This provides a statutory definition of what is covered the concept of “operational land”. It draws the distinction between land which is comparable with land in general and land comparable to land held for the purpose of the undertaking. In determining this, regard is to be had to the nature and situation of the land in question. In the context of the current proposals operational land would comprise land within the finished compounds comprising Work Nos. 30 (onshore substation), 41 (national grid substation) and 38 (sealing end compounds). The definition would apply to the as built infrastructure and thus there is no need to further define these areas.</p> <p>b) The operational land would be occupied by transmission licenced entities. The purpose of operational land has a number of purposes. Operational land of statutory undertakers is given a particular status in a range of Statutes which cover the acquisition of land and rights. In addition, as identified restricted permitted development rights are provided to Electricity Undertakers in respect of operational land. Transmission assets constitute essential infrastructure .The Applicants will require to transfer the benefit of the Assets to transmission licence holders including an Offshore Transmission Owner. The purpose of this regime is to encourage and facilitate competition in the operation and maintenance of offshore transmission infrastructure. It would be expected that they receive the same protection and</p>



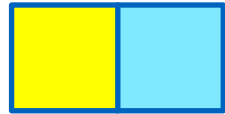
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			permitted development powers as other providers of such services.
2.0.4	East Suffolk Council, Suffolk County Council, Applicants	<p>Proposed s111 Agreement</p> <p>In relation to the proposed agreement to be made under s111 of the Local Government Act 1972 in respect of mitigation/compensatory funds, discussed in the report ES/0610 and to which a link is provided on page 4 of [REP4-059], provide a statement committing all parties to the proposed s111 Agreement to signing and submitting the Agreement by Deadline 8 – 25 March 2021. Refer also to the section 'Obligations and Agreements' in the dDCOs Commentaries document.</p>	<p>The Section 111 Agreements are agreed between the Applicants and East Suffolk Council (ESC) and these are currently in the process of being signed by the parties. The signed Agreements will be submitted to the examination by Deadline 8.</p> <p>The Applicants will update the Procedural Decision 12 Tracking List (REP01-082) at Deadline 7 to reflect this position.</p>
2.0.5	East Suffolk Council, Suffolk County Council, Applicants	<p>Proposed s111 Agreement</p> <p>The report ES/0610 of ESC's Cabinet Report and Resolution of 5th January 2021, referenced on page 4 of [REP4-059] sets out proposals for mitigation/compensatory funds to be procured through an agreement to be made under s111 of the Local Government Act 1972 and summarised in paragraph 7.87: <i>Table 2 – Key mitigation/compensation measures now proposed.</i></p> <p>The ESC Cabinet approved the report's recommendation which, while maintaining significant concerns in relation to</p> <p>a) <i>the impact of operational noise levels at the onshore substations site which will have an adverse impact on residential amenity and the character of the area until such time that</i></p>	<p>a) and b) The Applicants have made a number of modifications to the project design which are set out in the report ES/0610 of ESC's Cabinet Report and Resolution of 5th January 2021. In addition, the Applicants are providing a number of funds to ESC, which have been agreed with ESC and those sums are accurately set out in the ESC Cabinet Report.</p> <p>The Applicants have negotiated and agreed Section 111 Agreements with ESC in respect of each Project. The Agreements oblige the Applicants to provide certain sums prior to or upon commencement of development, and prior to or upon operation of the Project. The Applicants are used to working with ESC and understand the methods of implementation that work effectively between them. The relevant sums in the Section 111 Agreements as well as the additional sums and their general purpose is set out in the ESC Cabinet Report (the additional sums will be dealt with via</p>



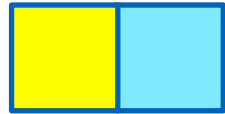
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		<p><i>appropriate and suitable mitigation or compensation is secured</i></p> <p>and</p> <p>b) <i>the lack of cumulative assessment of the National Grid substation in its extended form, until such a time as this is considered to be adequately and appropriately addressed;</i></p> <p>and maintaining concerns with regard to the</p> <p><i>design of the onshore substations until such time that the Council's concerns are adequately and appropriately addressed;</i></p> <p>expressed the view that:</p> <p><i>[It] is moving towards a predominantly neutral position in relation to the overall impact of the onshore substations on EA1N and EA2 individually and cumulatively on the village and environs of Friston;</i></p> <p>while acknowledging that:</p> <p><i>the onshore infrastructure is out of character with the village but recognises that the Applicants are seeking to provide embedded mitigation as part of their project which coupled with the mitigation and compensation packages proposed will enable the Council working with partners to provide additional improvements in addition to the embedded project mitigation.</i></p> <p>The views of parties are sought on:</p>	<p>other mechanisms). It is anticipated that signed versions of the Section 111 Agreements will be submitted to the Examination at Deadline 8.</p> <p>The Applicants consider that the funds provide an opportunity to deliver positive outcomes for the onshore areas potentially impacted upon by the Projects, and note that ESC is content with the sums agreed.</p> <p>c) In terms of the funds set out in the Section 111 Agreements, the agreed Section 111 Agreements provide that each of the sums will be payable to ESC, who will hold the sums in an interest bearing account. ESC is then obliged to use the sums provided for the stated purposes as set out in the Section 111 Agreements. If any of the sums are not expended by ESC for their stated purpose within ten years of receipt, ESC can choose to use the sums for any of the other stated purposes in the Agreements. The only exception to this is the £465,000 payable in relation to Area of Outstanding Natural Beauty (AONB) enhancements payable in respect of East Anglia TWO only, where the sum must be used only for the stated purpose. This affords ESC flexibility in expending and distributing the sums appropriately for the stated purposes.</p>



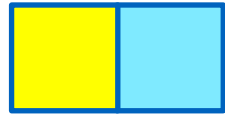
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		<p>a) The adequacy of the proposed package of mitigation and compensatory measures in light of the advice contained in paragraphs 4.1.3 and 4.1.4 of the Overarching National Policy Statement for Energy (EN-1);</p> <p>b) Additional measures that might be required; and</p> <p>c) Arrangements for distributing compensatory funds.</p>	
2.0.6	Applicants	<p>EA ONE (N) and EA Two Onshore Substations</p> <p>Explain the reason and the significance, if any, of changing the description of the two proposed substations from EA ONE North (the western site) and EA TWO (the eastern site) as, for example, in [APP-094] to the description 'Western Substation' and 'Eastern Substation' in, for example, the East Anglia ONE North Offshore Windfarm Outline Landscape Mitigation Plan [REP4-015], which, confusingly, is a document dedicated only to EA ONE North, but simply refers to the 'Western' and 'Eastern' substations in all the visual material and does not explicitly identify a EA ONE North site.</p> <p>Considering this, please explain:</p> <p>a) If only one project proceeds where will the substation be located and how will this decision be made?</p> <p>b) If only one project proceeds:</p> <p style="padding-left: 20px;">a. What are the implications for the land no longer required?</p>	<p><i>Onshore Substation Descriptions</i></p> <p>During the initial pre-application stage, the Applicants proposed to develop the East Anglia TWO onshore substation to the east of the substation area and the East Anglia ONE North onshore substation to the west of the substation area. This convention has remained to some extent within the Applicants for descriptive purposes.</p> <p>During pre-application discussions however, the Councils expressed a preference that, in the event the Projects are constructed sequentially, the first project to proceed should be constructed on the eastern most area of the onshore substation development area (rather than the eastern area being allocated for one specific project).</p> <p>As stated in the <i>Scheme Implementation Report</i> (APP-596), the East Anglia TWO onshore substation and the East Anglia ONE North onshore substations are both located within Work No. 30, the boundary of which is sufficiently large so as to encompass the development footprints of both onshore substations. The Applications therefore provide the flexibility for either onshore substation to be developed to the east or the west of Work No. 30 and provides flexibility to allow for</p>



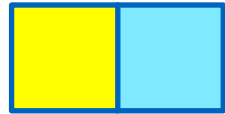
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		<p>b. What additional mitigation will be provided, if any, and how will its effects be assessed?</p> <p>c. What are the mechanisms for assessing and determining the details of any proposals for land not required in the dDCO?</p> <p>d. What are the implications, if any, for land not required subject to CA proposals?</p>	<p>micrositing of the onshore substation as part of its detail design process. Final positioning of the onshore substations will be undertaken at the detailed design stage (post consent) and will be subject to the considerations and consultation within the substations design principles statement (REP4-029) and be in accordance with the outline landscape and ecological management strategy (OLEMS) (REP3-030).</p> <p>Whilst the East Anglia TWO and East Anglia ONE convention remains useful for descriptive purposes, it is in fact correct to refer to the locations as the eastern and western locations, given their interchangeability.</p> <p>Response to question a)</p> <p>Should only one project proceed, it is anticipated that its onshore substation will be located to the east of Work No. 30. The final location however will be subject to the considerations and consultation within the substations design principles statement (REP4-029) and will be subject to approval of the relevant planning authority under Requirement 12 of the DCO.</p> <p>Landscaping proposals will be updated within the final landscape management plan and any land that is not required for the authorised Projects permanently or temporarily will not fall within the category of land over which the Applicants can exercise the compulsory rights and powers set out in Articles 18, 20 and 26.</p> <p>Response to question b(b)</p>



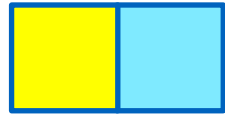
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			<p>The Applicants note that there is a distinction between only one project proceeding, and both Projects proceeding under a sequential build scenario.</p> <p>Should only one project proceed, the relevant Applicant will consider the positioning of the onshore substation, the surface water management arrangements and the landscaping arrangements to optimise the authorised development within the boundaries set with its Development Consent Order (DCO). The final location, extent and nature of landscaping and the drainage basin size and location will be refined to reflect the final design of the onshore substation and whether one project is proceeding or both, and will be subject to the considerations and consultation within the Substations Design Principles Statement (REP4-029) and be in accordance with the Outline Landscape And Ecological Management Strategy (OLEMS) (REP3-030). The detailed design will be subject to approval of the relevant planning authority under Requirement 12 of the DCO. The landscaping will be subject to approval of the relevant planning authority under Requirement 14 of the DCO. The surface water drainage scheme will be subject to approval of the relevant planning authority under Requirement 42 of the DCO.</p> <p>Response to question b(c)</p> <p>The relevant Applicant may only compulsorily acquire land that is required for the authorised project, or to facilitate it or is incidental to it as set out in Article 18 of the dDCO. As noted above, final design details are to be approved by the relevant planning authority and such approval will determine the land to be utilised for the authorised project. Other land within the</p>



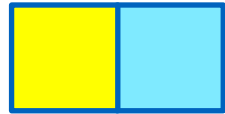
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			<p>order limits may be used for the purposes set out in Article 26 of the dDCO on a temporary basis. .</p> <p>Response to question b(d)</p> <p>Land that is not required for the authorised project permanently or temporarily will not fall within the category of land over which the Applicants can exercise the rights and powers set out in Articles 18, 20 and 26.</p>
2.0.7	Applicants and IPs	<p>Substations Design Principles Statement (SDPS) [REP4-029]</p> <p>a) Does the SDPS provide sufficient information to allow a judgement to be made that the proposals:</p> <ul style="list-style-type: none"> a. produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible (NPS-EN-1 para. 4.5.5); and b. are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be (NPS-EN-1 para. 4.5.3)? <p>b) If not, what additional information might be provided and how can it be secured?</p> <p>c) Will the senior business representative (such as a project director or business director) appointed to be the proposed Design Champion as set out in para. 34 be required to have</p>	<p>Response to Question a)</p> <p>The Applicants are confident that the structure and commitments of the SDPS, in both design and consultation terms, will successfully guide the post consent planning and delivery of the substation infrastructure whilst reflecting the core design principles of Climate; People; Places; and Value, whilst recognising the functional requirements of the infrastructure to be developed.</p> <p>However, the Applicants also note the valuable feedback received from the Panel and Interested Parties on the SDPS and are reviewing opportunities to bolster the SDPS to reflect this feedback whilst ensuring that meaningful consultation on design evolution post consent is not pre-judged, fettered or constrained. The Applicants will submit an updated substation design principles statement at Deadline 8 which will, amongst other matters, include supporting materials to illustrate the influence of colour finishes/materials on buildings and provide further clarity on community consultation proposals).</p> <p>The Applicants are confident that the final design of the substations will be improved upon post consent by the various</p>



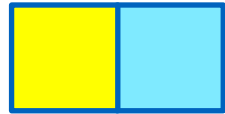
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		<p>a recognised design qualification and if not, and in the absence of such a qualification, how will this skill gap be remedied?</p> <p>d) Early consideration of how the design principles and policies set out in both the SDPS and Outline Landscape and Ecological Management Strategy (OLEMS) [REP3-030] might translate into design outcomes would be helpful to the ExAs in considering whether the criteria for good design can be met, including an assessment of how the following elements might be addressed:</p> <ul style="list-style-type: none"> a. Consideration of the form of the substation complex; b. Colour analysis and review of potential façade colours for the external treatment of the substation buildings; c. Review of material options for the primary forms of buildings and fencing; d. Conclusions relating to the proposed solution for the external appearance of the substation complex in terms of form, colour and materials. <p>e) Why has the 'architectural vocabulary' referred to in paras. 17-19 of the Engagement Strategy that can be applied to the substations throughout all phases of the Projects (and) will provide design proposals for the appropriate solutions for external architectural treatment not been developed for submission to the Examination and included in the Design and Access Statement [APP-580]? Can further consideration of these elements be provided</p>	<p>measures secured within the dDCO, including the design considerations and consultation embedded within the SDPS, but the design options can only be effectively progressed and considered once key design parameters are progressed through the procurement and initial design stages which will establish the footprint and finished ground level of the substations; building external equipment sizes; noise mitigation required (including the sizing of equipment required to ensure compliance with and improve upon (where practicable) the noise limits); the surface water SuDS basin sizing; and progression of the outline landscape masterplan.</p> <p>The Applicants note the commitments within the SDPS to undertake a two-stage consultation process as the design evolves, to provide a forum for community feedback and benefit from an independent design review (such feedback being important in the evolution of the substation infrastructure). The Applicant also notes the early engagement sought with the East Suffolk Council prior to granting of the DCO in order to progress key principles and design matters; the appointment of an external chair with the necessary qualifications and experience in design and the skills to lead effective community engagement and engagement of the Design Council (or similar) to undertake an independent design review of the onshore substation.</p> <p>Response to Question b) N/A</p> <p>Response to Question c)</p>



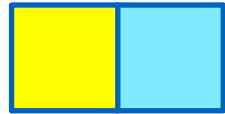
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		<p>before the close of the Examination and the Design and Access Statement amended accordingly?</p>	<p>The SDPS requires the designation of a senior business representative (such as a project director or business director) as the design champion for the project, in order to maintain the necessary focal point, prioritisation and co-ordination in the progression of good design. The role of the design champion is to drive the design process within the business and the decision makers, drawing on the expert advice of designers which span a number of disciplines. This ensures that not only the required design advice is obtained, but that business decisions are effectively influenced by the design champion.</p> <p>To assist in this process, the Applicants will appoint an external chair with the necessary qualifications and experience in design and the skills to lead effective community engagement. East Suffolk Council will be consulted on the appointment of the external chair.</p> <p>Response to Question d)</p> <p>The Applicants note the valuable feedback received from the Panel and Interested Parties on the SDPS and are reviewing opportunities to bolster the SDPS to reflect this feedback whilst ensuring that meaningful consultation on design evolution post consent is not pre-judges, fettered or constrained. The Applicants will submit an updated substation design principles statement at Deadline 8 which will, amongst other matters, include supporting materials to illustrate the influence of colour finishes/materials on buildings and provide further clarity on community consultation proposals).</p> <p>The public engagement process undertaken as part of the SDPS will consider the form, colour and materials of buildings,</p>



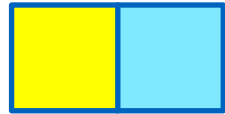
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			<p>fencing and hard landscaping, as well as the wider landscape measures, on an integrated and co-ordinated basis. Colour and material samples will be made available where physical meetings are held. It is anticipated that there may be an animated model of the substation complex so that discussion can be undertaken looking at the model and considering different approaches. Photomontages will be used where appropriate and sample materials will be made available. A briefing pack will be sent to all attendees in advance of the workshop.</p> <p>Response to Question e)</p> <p>Further development of the architectural framework and the landscape masterplan can only be achieved effectively when the Project has the benefit of the supply chain inputs, achieved during the latter procurement and initial design stages of the Projects. The Applicants have assessed a reasonable worst case 'Rochdale envelope' within the Applications; established the maximum parameters within the draft DCO; and incorporated various mechanisms within the DCO to ensure the detailed design, landscaping, surface water management, operational lighting, ecological management and public rights of way measures (to name a few) are developed to the relevant planning authority's satisfaction.</p> <p>The Applicants consider that the SDPS, OLEMS and access management plan provide robust controls over the development as secured in the draft DCO.</p>
2.0.8	Applicants	Substations Design Principles Statement (SDPS)	The Applicants would direct the Examining Authority to Appendix A of the SDPS (REP4-029), which sets out the



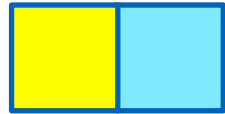
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		<p>East Suffolk Council state that they would like to see genuine engagement of the local community and key stakeholders within the design process and request that an outline of such engagement should be included within the SDPS [REP4-029]. In response you do not consider that such level of detail is required within the document but state that you will consider the engage with ESC on how best to achieve this [REP5-010].</p> <p>a) Why do you consider that such detail is not required within the document?</p> <p>b) Please update the ExAs on the latest discussions with ESC on this subject.</p>	<p>Applicants' engagement plans, which will include an independent design review and engagement with the local community.</p> <p>This includes draft Landscape Masterplan and Architectural Framework being submitted for an independent and objective review by a nationally recognised impartial body (such as the Design Council, in consultation with ESC) to inform and guide the final design solutions.</p> <p>A two stage engagement process will involve Parish Council and local resident engagement during the development of the Landscape Masterplan and the Architectural Framework. The purpose of this engagement will be to obtain stakeholders' views on the options that are being considered in respect of matters such as planting, hard landscaping, colours and finishes. A one-day workshop will be held once the draft Landscape Masterplan and draft Architectural Framework have been developed to a point where it is appropriate to present to stakeholders the various options that require their consideration and input. Following the workshop, there will be a three week period for attendees to provide further thoughts and feedback to the Applicant. Feedback from the workshop and the Design Council will then be fed into the Landscape Masterplan and Architectural Framework as appropriate. Once a finalised draft is available, the documents will be circulated to the attendees of the workshop and a further one day workshop will be arranged to present the detail and explain the rationale behind the final decisions, and provide an opportunity for final comment.</p>



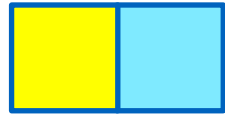
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			<p>The Applicants would challenge why ESC consider this to not to be 'genuine engagement' and note that Requirement 12 of dDCO requires the SDPS to be implemented as part of the requirement discharge process.</p>
2.0.9	Applicants	<p>Substations Design Principles Statement (SDPS)</p> <p>Respond to the view of East Suffolk Council [REP5-048] that a maximum finished ground level should be included within the SDPS. Justify if your view is that this cannot be provided.</p>	<p>The Substations Design Principles Statement (REP4-029) presents the estimated finished floor level, maximum building and equipment heights and the maximum AOB of buildings and external equipment and clearly states the reasons that the maximum finished floor levels cannot be established until the detailed design stage when final details of the operational drainage management scheme, soil properties and required earthworks are available.</p> <p>Future geotechnical and detailed design studies are required in order to establish the soil properties, bearing capacity, groundwater levels etc. of the development site, and details are required from the supply chain that can only be obtained from procurement and initial/detailed works. Other factors that could influence the final finished ground level, includes surface water drainage design requirements and groundwater constraints, to ensure appropriate management and control of groundwater interactions in the design of the onshore substation.</p> <p>This is an entirely reasonable and appropriate approach for the national significant infrastructure projects.</p> <p>The Applicants note that certainty on the maximum visual envelope is provided by the Applicants' commitment in the SDPS to the maximum AOB of buildings and external equipment presented within the SDPS. The Applicants are</p>



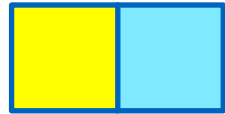
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			<p>confident therefore that the environmental impacts of the Projects have been appropriately assessed and mitigated.</p>
2.0.10	Applicants, NGET	<p>Substations Design Principles Statement (SDPS)</p> <p>Suffolk County Council [REP5-056] strongly recommend a neutral chair is appointed for community engagement events and raise further issues relating to National Grid supply chain engagement and best endeavours. East Suffolk Council raise similar concerns [REP5-048]. Respond to the Councils, specifically on the following:</p> <p>a) Can you commit to a neutral chair for community engagement events, and if so can this included in a future revision of the SDPS?</p> <p>b) Respond to the view of the County Council that the approach taken by NGET to supply chain engagement is likely to slow the development of their final design solution. If this point is accepted, suggest solutions or mitigations.</p> <p>c) Can you commit to take all reasonable steps to explore opportunities to reduce the parameters of the substations and to using best endeavours when working with supply chains to further reduce the dimensions of all projects within the SDPS, and is so can this be included in a future revision of the SDPS?</p> <p>d) Confirm when a revised SDPS will be submitted.</p>	<p>Response to Question a)</p> <p>The Applicants consider it to be inappropriate at this stage to constrain the selection of the Chair, rather it is of fundamental importance to ensure that the Chair is suitably qualified and is in a position to influence the design evolution of the substations rather than simply chair an event. East Suffolk Council will be consulted on the appointment of the external chair.</p> <p>Response to Question b)</p> <p>The Applicants do not accept this position by the County Council. National Grid Electricity Transmission (NGET), as regulated business, have established investment and design processes which must be followed in the delivery of such projects.</p> <p>The Applicants and National Grid will work together in the development of the onshore substations and National Grid infrastructure design and our respective procurement processes will play a key role in this process to ensure that supply chain input and design information is available at the appropriate time to facilitate effective community engagement.</p> <p>Response to Question c)</p> <p>The DCO for the Projects will set the maximum visual envelope of the onshore substations and National Grid substation, thereby establishing the acceptability of the Rochdale envelope on which the Applications are based. Post</p>



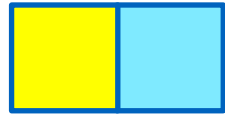
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			<p>consent, the Applicants will refine the design of the onshore substations and National Grid substation within the consented envelope dependent upon the limits of what is available on the market and what can be delivered economically and efficiently and in compliance with the DCOs and its certified plans, and the licencing terms of the companies.</p> <p>It would however be wholly inappropriate for post consent discussions to be centred around 'best endeavours' (being a very particular legal test) to reduce the dimensions of the substations and the potential for this to frustrate the delivery of these nationally significant infrastructure projects.</p> <p>The Applicants recognise the importance of reducing the overall environmental impact of the Projects where possible, to ensure an efficient, co-ordinated design is progressed which reduces the environmental impact overall. This must be set in the context of the Projects' safety, maintainability and quality of supply obligations, and the parameters set within the DCO.</p> <p>It is noted that the successful design of the onshore substations is not simply be a function of dimensions. For instance, equipment of a smaller size may have a higher sound power level, therefore a reduction in scale would result in an increase in noise levels in the locality.</p> <p>The SDPS already recognises that there are a number of important and fundamental technical constraints which are inherent to the design of the substations, particularly in respect to the location, form and appearance of the external electrical equipment and the functionality of buildings. The layout of the substations will be determined by their functional demands,</p>



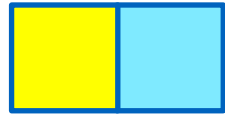
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			<p>safety requirements, and various practical restrictions and considerations which will result in a safe and efficient electrical layout. The design criteria for the substation layout are relatively rigid, in order to comply with safety, maintainability and quality of supply obligations. However, within these constraints, other elements will be used to ensure the substations respond as well as possible to a sense of place and to minimise their visual impact.</p>
2.0.11	Applicants	<p>Substations Design Principles Statement (SDPS)</p> <p>The SASES D5 submission [REP5-097] state that they consider that 3.23ha is not the smallest substation footprint that can be achieved, referring to a 2.1ha benchmark advised by NGENSO for BEIS and the 3.22ha footprint for the Hornsea One substation, stated to be 50% more powerful than the proposed EA1N substation.</p> <p>They also note that some 7ha of land is reserved for the NGET substation.</p> <p>a) Respond to the points above raised by SASES and justify the footprint size of the proposed substations, including the National grid substations and area.</p> <p>b) Can a more efficient design be proposed in terms of footprint?</p> <p>c) Can any further reduction in size or scale be achieved for the proposed sealing end compounds?</p>	<p>Response to Question a)</p> <p>As stated in the Applicants' response to (REP4-104) in the Applicants' Comments on SASES Deadline 4 Submissions (REP5-017), the information (benchmark footprint for an 800MW High Voltage Alternating Current (HVAC) substation) in the DNV GL report, carried out on behalf of National Grid Electricity System Operator (NG-ESO), is based on a scaled down Hornsea One project (1200MW), and as such it is addressed below.</p> <p>Meaningful comparisons cannot currently be drawn between Hornsea and the Projects, mainly because:</p> <ul style="list-style-type: none"> • The Projects' substation design envelopes (footprints) are the result of the conceptual design system studies and are formed by early information obtained from the supply chain, whereas Hornsea reflects that of a final (as-built) and hence fully optimised design envelope specific to the Hornsea project; • The design of the Hornsea project is quite different from EA1N and EA2, for example the scheme includes options for interim reactive compensation



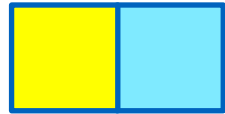
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			<p>stations (which can potentially reduce the onshore substation footprint by reducing the size of RPC onshore). In addition, the scheme is connected to a different part of the Grid where requirements for voltage and frequency control, or power quality, could be less onerous, and this can result in an entirely different (and less demanding in terms of size) substation design; and</p> <ul style="list-style-type: none"> Substation design is subject to a number of standards on safety, security of supply (reliability) and efficiency. The Applicants are confident that these standards will be met through the design process being applied. <p>Response to Question b)</p> <p>As set out in NGET's <i>Responses to any further information requested by the ExA for this deadline</i> (REP3-111), detailed design work has not been carried out at this stage to inform the specific layout within the National Grid substation and as such the dimensions provided are based on maximum (reasonable worst case) anticipated requirements. Detailed design would be carried out by NGET's contractors, following the award of a contract and prior to work on site commencing. Details will be submitted to the Local Planning Authority in accordance with the relevant requirements of the DCO. In any event, based on the conceptual design undertaken and NGET's experience of previous projects, NGET consider it unlikely that the detailed design will significantly change the required sub-station footprint and therefore the land take required.</p>



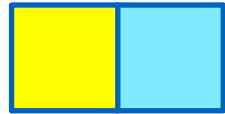
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			<p>It is noted that a GIS substation solution will result in reduced land take (compared to AIS) although other considerations must be taken into account when National Grid Electricity Transmission select the National Grid substation technology, including matters such as the use of SF6 within GIS equipment.</p> <p>Response to Question c)</p> <p>National Grid Electricity Transmission has confirmed that the cable sealing end compounds footprint are considered to be a reasonable worst case, and their location/orientation is a function of the overhead line alignment and pylon positioning.</p> <p>The SDPS will be updated to confirm that the footprint and orientation of the cable sealing end compounds will be subject to design review to explore opportunities for a reduction in the footprints, or realignment to closer resemble the existing field boundaries.</p>
2.0.12	Applicants and IPs	<p>Design evolution</p> <p>With reference to NPS-EN-1 para. 4.5.4 and the application documents, outline how the design process was conducted, how the proposed design evolved and how why the preferred design solution was chosen.</p>	<p>Significant design works have already been undertaken in relation to the Projects, in particular at the onshore substations.</p> <p>As stated in the Development Consent and Planning Statement (APP-579), the evolution of the project design and site selection for onshore and offshore components of the Projects are described in detail in ES Chapter 4 Site Selection and Assessment of Alternatives (APP-052). Site selection is considered to be the first stage in the good design process. This was guided by factors such as fitness for purpose and sustainability (considered with reference to NPS</p>



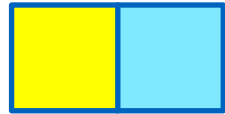
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			<p>EN1 policy 4.5.1, which states that “Applying ‘good design’ to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible”).</p> <p>ES Appendix 4.1 East Anglia TWO and East Anglia ONE North Onshore Substations Site Selection RAG assessment (APP-442) was an initial component of the consideration of alternatives and site selection. The final location and design of the onshore substations was further refined through phase 2, 3 and 3.5 consultation, preliminary environmental information and expert topic groups (section 4.9.1 of ES Chapter 4 Site Selection and Assessment of Alternatives) (APP-052).</p> <p>Offshore</p> <p>The layout of the windfarm site, including wind turbines, inter-array, platform link cables and offshore platform locations have not yet been specified. Therefore, exact locations are not included in the DCO application. This is due to the requirement for flexibility on layout pending further ground investigation, detailed design and commercial negotiations, and is one of the purposes of developing a project design envelope (a degree of design flexibility recommended by para 2.6.44 of NPS EN-3). In developing the final layout, the Applicants would aim to minimise environmental impacts (e.g. to ecology, archaeology) and impacts to other users (e.g. shipping and navigation) whilst maximising energy yield and cost efficiency. This is reflected by the reduction in the northern extent of the</p>



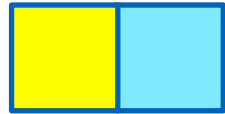
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			<p>East Anglia TWO windfarm site and the western extent of the East Anglia ONE North windfarm site.</p> <p>Onshore - Landfall</p> <p>Consideration of design alternatives at the landfall were centred on the technology to be adopted to bring the offshore export cable ashore. Two techniques are available – an open trench technique and a trenchless technique. The Applicants have adopted horizontal directional drilling.</p> <p>Section 4.4.2 (Project Alternatives) of Chapter 4 - Site Selection and Assessment of Alternatives (APP-052) confirms the environmental benefit of HDD at the landfall which removes any possible interaction with the SSSI and reduces potential risks associated with coastal cliff erosion in the Thorpeness area.</p> <p>The transition bays at the landfall are underground in order to reduce visual impact and ensure no long term impact on land use.</p> <p>Onshore – Onshore cable route</p> <p>Section 4.4.2 (Project Alternatives) of Chapter 4 - Site Selection and Assessment of Alternatives (APP-052) confirms the environmental benefit of burying cables as opposed to overhead lines and pylons and associated minimisation of visual impacts. The environmental benefit of crossing the Sandlings SPA at its narrowest section is also highlighted and reduces the potential impacts to habitats within, and disturbance to, species using the SPA. The landscape design benefits of undergrounding cables are</p>



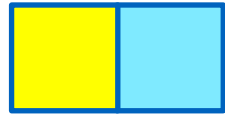
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			<p>recognised in paragraphs 2.8.10 of NPS EN-5 and in the Holford Rules (NPS EN5 para 2.8.6).</p> <p>Onshore substation</p> <p>Section 4.4.2 (Project Alternatives) of Chapter 4 - Site Selection and Assessment of Alternatives (APP-052) confirms the environmental benefit of the onshore substation adopting a Gas Insulated Switchgear (GIS) transformer technology as it allows for a lower building height within the onshore substation, minimising the visual impacts.</p> <p>The configuration of the onshore substation is based on the East Anglia ONE Offshore Windfarm's onshore substation, with key modifications to reflect the different design voltages between the onshore substations (220kV at EA1 and 275kV at EA2 and EA1N). Other considerations in the transfer of design information included the need to accommodate unknown factors in the Rochdale envelope of the EA2/EA1N projects, such as ground conditions, sold properties, ground water flows, surface water management provisions and most significantly, the early stage supply chain engagement on EA2 and EA1N.</p> <p>Further development of the architectural framework and the landscape masterplan can only be achieved effectively when the Project has the benefit of the supply chain inputs, achieved during the latter procurement and initial design stages of the Projects. The Applicants have assessed a reasonable worst case 'Rochdale envelope' within the Applications; established the maximum parameters within the draft DCO; established clear Design Principles for the design of the substations (see</p>



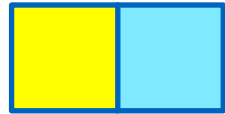
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			<p>below) and incorporated various mechanisms within the DCO to ensure the detailed design, landscaping, surface water management, operational lighting, ecological management and public rights of way measures (to name a few) are developed to the relevant planning authority satisfaction.</p> <p>National Grid Substation</p> <p>The National Grid substation will be either air insulated switchgear or gas insulated switchgear. National Grid Electricity Transmission, a regulated business, will establish the technology to be used based on supply chain engagement and adherence to design approval processes that may be subject to scrutiny by Ofgem.</p> <p>Relevant chapters of the Environmental Statement consider in the outset whether the AIS or GIS solution is the 'worst-case', with AIS being identified on each occasion. Chapter 29 Landscape and Visual Impact Assessment (APP-077) includes photomontages of the AIS and GIS technology.</p> <p>Substations Design Principles Statement</p> <p>The Applicants have submitted a Substations Design Principles Statement (REP4-029) to Examination. The Applicants recognise the importance of reducing the overall environmental impact of the Projects' substations and in ensuring an efficient, co-ordinated design is progressed which reduces the environmental impact overall. This must be set in the context of the Projects safety, maintainability and quality of supply obligations, and the parameters set within the DCO.</p>



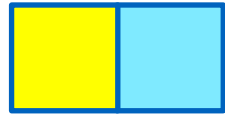
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			<p>It is noted that the successful design of the substations is not simply be a function of dimensions. For instance, equipment of a smaller size may have a higher sound power level, therefore a reduction in scale would result in an increase in noise levels in the locality.</p> <p>The SDPS recognises that there are a number of important and fundamental technical constraints which are inherent to the design of the substations, particularly in respect to the location, form and appearance of the external electrical equipment and the functionality of buildings. The layout of the substations will be determined by their functional demands, safety requirements, and various practical restrictions and considerations which will result in a safe and efficient electrical layout. The design criteria for the substation layout are relatively rigid, in order to comply with safety, maintainability and quality of supply obligations. However, within these constraints, other elements will be used to ensure the substations respond as well as possible to a sense of place and to minimise their visual impact and the SDPS includes provision for independent design review (in accordance with paragraph 4.5.5 of NPS EN-1) and facilitation of community consultation workshops by a suitably qualified chair.</p> <p>The Applicants note the valuable feedback received from the Panel and Interested Parties on the substation design principles statement (REP4-029) and are reviewing opportunities to bolster the SDPS to reflect this feedback whilst ensuring that meaningful consultation on design evolution post consent is not pre-judges, fettered or constrained. The Applicants will submit an updated</p>



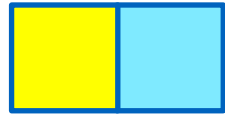
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			<p>substation design principles statement at Deadline 8 which will, amongst other matters, include supporting materials to illustrate the influence of colour finishes/materials on buildings and provide further clarity on community consultation proposals). Outline Landscape and Ecological Management Strategy</p> <p>The landscape and ecological design and mitigation approach for the Projects' onshore substation and National Grid substation is discussed in the OLEMS (an updated version has been submitted at Deadline 6, document reference 8.7). The approach combines the approaches of screening and integrating the substations into the landscape to meet the mitigation requirements and also as a response to the local landscape character and the historic landscape context. This approach results in the onshore substations having a lower landscape and visual impact in the long-term, once woodland and hedgerow planting is maturing (as opposed to an approach where the substations are even more emphasised). Specifically placed woodland blocks/shelterbelts, hedgerows and tree lined field edges are proposed to hide and integrate the onshore substation, reducing the visual impact in specific views towards the onshore substation experienced by people from residences, roads and PRoW, while allowing the function of the onshore substations to be recognised when in closer proximity.</p> <p>This approach acknowledges the key requirement for visual screening of the onshore substations, which has been a clear preference expressed during public and stakeholder consultations (which included an OLMP Working Group with</p>



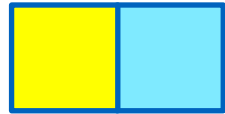
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			<p>comprised SCC, ESC, Historic England and Natural England, see Table 3.1 of OLEMS (APP-584)). Due to technical constraints, it would be unrealistic to completely screen the entirety of the onshore substations.</p> <p>Key documents</p> <p>Key documents relating to the design process include:</p> <ul style="list-style-type: none"> • Development Consent and Planning Statement (APP-579); • Chapter 4 Site Selection and Assessment of Alternatives (APP-579); • East Anglia TWO and East Anglia ONE North Onshore Substations Site Selection RAG assessment (APP-443); • Substations Design Principles Statement (REP4-024); • Outline Landscape and Ecological Management Strategy (an updated version has been submitted at Deadline 6, document reference 8.7); and • Design and Access Statement (APP-580).
2.0.13	Applicants, ESC, SCC and IPs	<p>Cumulative Effects Assessment at the substations site</p> <p>Provide and comment upon a cumulative effects assessment of the combined environmental, economic and community effects on the area north of Friston including the substation sites and National Grid connection apparatus and Friston itself, taking into account embedded and</p>	<p>Para 4.2.6 states</p> <p><i>The IPC should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy or community as a whole, even though</i></p>



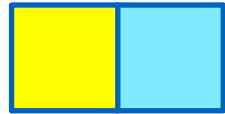
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		<p>additional mitigation and proposed compensation funds, during construction, operation and decommissioning, to enable the consideration set out in NPS-EN-1 para. 4.2.6 to be undertaken.</p>	<p><i>they may be acceptable when considered on an individual basis with mitigation measures in place</i></p> <p>The Applicants consider that this paragraph refers to inter-related impacts within a project rather than to cumulative effects with other projects (which are covered in para 4.2.5). Inter-relationships are covered in each of the environmental statement receptor topic chapters to link elements of the assessments where there are overlaps. In addition, Chapter 30 Socio-economics and Tourism (APP-078) and Chapter 27 Human Health (APP-075) are based in part upon the conclusions of other chapters (i.e. for noise, air quality effects etc) so these chapters attempt, as far as possible to integrate the different types of effect.</p> <p>The approach to these different effects is to reduce the impacts as far as possible through embedded mitigation and then to provide balanced and holistic mitigation measures to deal with the residual effects together. The (OLEMS) (REP3-030) and the Outline Landscape Mitigation Plan (REP4-015) provide the basis for integration of the mitigation across the following receptor topics:</p> <ul style="list-style-type: none"> • Onshore Ecology • Outline Landscape and Ecological Management Strategy • Outline Landscape and Ecological Management Strategy • Water Resources and Flood Risk



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			<ul style="list-style-type: none"> • Land Use; and • Tourism, Recreation and Socio-Economics (i.e. Public Rights of Way (PRoW)) <p>The OLEMS has been developed since pre-Application in consultation with a range of stakeholders (see Table 8.9 of the Consultation Report (APP-029)) to take into account these different requirements. The OLEMS has been designed to allow flexibility, covering both of the onshore substations and the National Grid substation (either AIS or GIS).</p> <p>Consultation has continued post-submission to integrate the evolving mitigation proposals into a unified whole. Key considerations include</p> <ul style="list-style-type: none"> • The use of locally appropriate native woodland and hedging species; • Design of field layouts to be in keeping with the local field pattern or the historic pattern of boundaries where possible; • Integration of the SuDS; • Routing of the permanently diverted PRoW; • Adaptive management techniques (dynamic aftercare) <p>In addition, the OLEMS has been updated to take into account the post-Application refinements to the onshore substation designs. There have also been other changes in design which</p>

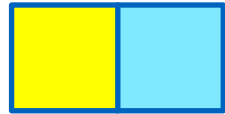


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			<p>have reduced impact, such as the commitments around reduced operational noise levels.</p> <p>Engagement on the design of the substations and surrounding landscaping will be extended post-consent to provide additional input and engagement at a local level (as described in the Substations Design Principles Statement (REP4-029).</p> <p>The Applicants consider that, through the consideration of the residual impacts to multiple receptors together through the OLEMS and following the principals set out in the SDPS, the impacts of the Projects have been considered as holistically as possible and not simply in a reductive receptor by receptor manner.</p>
2.0.14	Applicants, NGET, NGESO and NGV	<p>Cumulative Effects Assessment</p> <p>Throughout the Examination various IPs (e.g. SCC [REP4-068]; SASES [REP4-112]) have criticised the adequacy of the Applicants' cumulative impact assessment on the grounds that, while it is acknowledged that a number of planned energy generation and transmission projects (particularly, Nautilus, Eurolink, North Falls and Five Estuaries) have been offered, or are potentially to be offered, a connection to the National Grid at a location near Leiston, likely to be, on the current evidence, at Friston, if one or other of the projects under examination goes ahead, these projects have not been the subject of a cumulative effects assessment.</p>	<p>Para 4.2.5 states</p> <p><i>When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence).</i></p> <p>The Applicants reiterate that there have been no major changes with regard to the status of the projects listed since the submission of the Applications. None have been scoped or provided any detailed information which the promoters consider worthy of or suitable for any kind of cumulative assessment (see NGV Post Hearing Submission, REP3-112). The Applicants consider that the Applications as submitted</p>

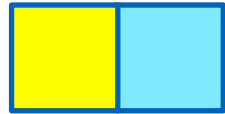


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		<p>While it has been made clear by the Applicants and NGET that the proposed NG substation at Friston will serve only EA1(N) and EA2; there is evidence that other proposals might follow in due course (e.g. [REP3-112] National Grid Ventures ISHs2 Post Hearing Submission; [REP3-110] National Grid Electrical Systems Operator Ltd ISHs2 Post Hearing Submission; [REP5-115] SEAS Further Evidence of Cumulative Impact). The Applicants' assertion that, other than Sizewell C [APP-395] and [APP-569], these additional projects do not qualify to be considered in a cumulative effects assessment because there is insufficient understanding of their scale, scope and timing is understood (see e.g. [REP3-085]). Nevertheless, there is a significant degree of uncertainty and confusion over the possible implications for the area if these other projects are pursued in this location. Effectively ignoring them is not helpful to the Examination.</p> <p>Therefore, in the light of footnote 10 on page 2 of the PINS Advice Note 17 Cumulative effects assessment relevant to nationally significant infrastructure projects that:</p> <p><i>“For the purposes of this advice note, ‘other existing development and/or approved development’ is taken to include existing developments and existing plans and projects that are ‘reasonably foreseeable’”</i></p> <p>And paragraph 3.4.2 that:</p>	<p>remain current in terms of having assessed projects for which consent is being sought or granted.</p> <p>Para 4.2.5 goes on to state</p> <p><i>The IPC may also have other evidence before it, for example from appraisals of sustainability of relevant NPSs or development plans, on such effects and potential interactions. Any such information may assist the IPC in reaching decisions on proposals and on mitigation measures that may be required.</i></p> <p>The most information available on these projects comes from a map titled ‘Initial Site Appraisal’ provided by NGV in it’s Nautilus Interconnector Briefing Pack¹ There is no such information available for Eurolink, North Falls or Five Estuaries. The information in the Nautilus Interconnector Briefing Pack does not include details of any likely effects.</p> <p>The Nautilus ‘Initial Site Appraisal’ map (see Figure 1 at the end of this document) was first produced in December 2018 and revised in July 2019 (as part of the Briefing Pack) with an extra converter station site added. This map is typical for optioneering / early site selection work in that it shows four potential landfall sites and nine potential converter station locations with multiple options going both north and south of Leiston.</p> <p>In order to undertake a CIA, it is necessary to understand what the worst-case scenario may look like. If the focus is Friston then is the assumption that the worst case is being driven by</p>

¹ <https://www.nationalgrid.com/document/125601/download>



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		<p><i>“The assessment should be undertaken to an appropriate level of detail, commensurate with the information available at the time of assessment. Information on some proposals may be limited and such gaps should be acknowledged within the assessment. The assessment will move from a more qualitative to a more quantitative assessment as the availability and/or certainty of information increases. Any uncertainty in the assessments should be clearly documented.”</i></p> <p>The Applicants are asked to reconsider their position and, in light of current data availability, work in consultation with NG, NGESO and NGV to provide a more extensive cumulative effects assessment, focusing particularly on likely environmental, economic and community effects, including projects known to potentially be sited in the area affected by EA1(N) and EA2, to enable the requirements of NPS-EN-1 paras. 4.2.5 and 4.2.6 to be addressed.</p>	<p>landscape / footprint considerations? For example, if we are considering NGV converter stations locations in the immediate vicinity of Friston, broad locations are shown adjacent to the Projects' substations (location 5) and to the east of Grove Wood (location 5a). A 24m building would be prominent in both locations and it is not straightforward to determine which would be the worst case based on the full suite of viewpoints (5 would be worse for northern viewpoints but 5a for the southern ones). This simple example is instructive of the judgements the Applicants would need to make around the worst case assumptions.</p> <p>If this basic issue is resolved there are then a host of detailed assumptions, for example on orientation. What assumptions should be made about mitigation and landscaping (it would not be appropriate to assume that no mitigation was provided by NGV)? To determine a 'reasonable' worst case the Applicants would need to approach this process as they had approached their own site selection process, considering a suite of potential receptors in order to determine what location and arrangement would be a) practical and b) nominally consentable (i.e. not a location that was so obviously inappropriate as to invalidate the exercise) for the NGV converter station.</p> <p>The exercise proposed would be lengthy and would be challenged from all parties as either over or understating the potential effects.</p> <p>The only practical solution in the opinion of the Applicants would be to provide updated information based upon the only element of the NGV projects about which there is any certainty</p>



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			<p>– namely the locations highlighted as “Area available for potential future expansion of the National Grid substation to accommodate the proposed Nautilus and EuroLink projects” within the draft SoCG with NGV (REP1-062). The areas are in the public domain and the likely infrastructure within these (electrical gantries) could be matched to the existing design of the National Grid Substation. Such an assessment could be undertaken relatively easily and without controversy using the baseline datasets available to the Applicants, including viewpoint photography, ecological survey etc, for submission at Deadline 8.</p>

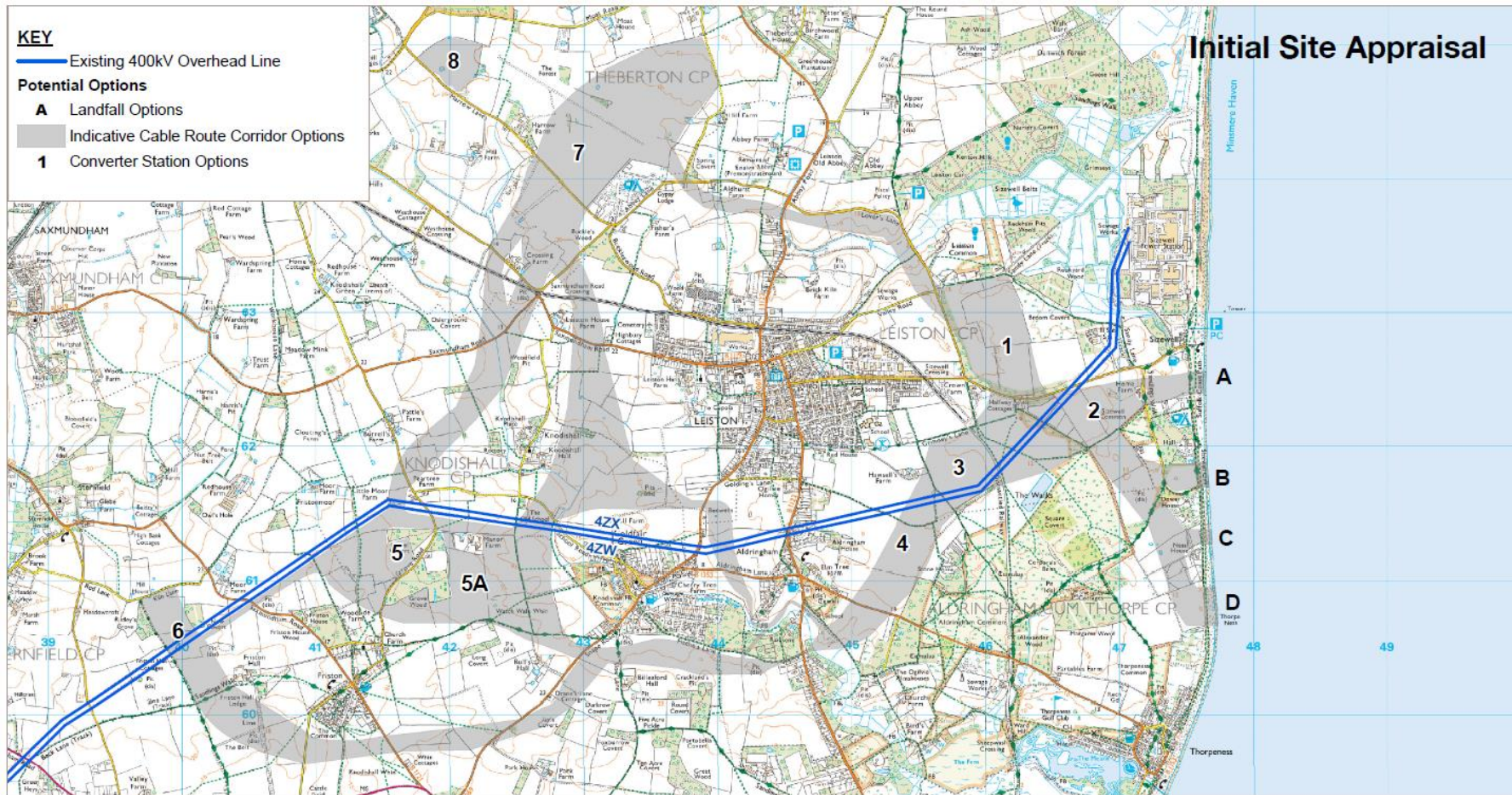
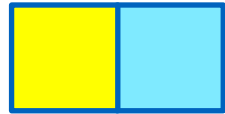


Figure 1 Initial Site Appraisal' provided by NGV in it's Nautilus Interconnector Briefing Pack