



East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments on Responses to Examining Authority's Written Questions

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

Document Reference: ExA.WQRs.D7.V1

SPR Reference: EA1N_EA2-DWF-ENV-REP-IBR-001122

Date: 4th March 2021 Revision: Version 01

Author: Royal HaskoningDHV

Applicable to East Anglia ONE North and East Anglia TWO







Revision Summary					
Rev Date Prepared by Checked by Approved by					
001	04/03/2021	Paolo Pizzolla	Lesley Jamieson / Ian Mackay	Rich Morris	

	Description of Revisions				
Rev	Rev Page Section Description				
001	001 n/a n/a Final for submission at Deadline 7				





Table of Contents

1	Introduction	1
2	Applicants' Comments on Responses to ExA WQ1	2
2.1	Overarching, general and cross-topic questions	2
2.2	Aviation	21
2.3	Biodiversity, Ecology and Natural Environment	22
2.4	Historic Environment	25
2.5	Landscape and Visual Impact	27
2.6	Socio-Economic Effects	35
2.7	Transportation and Traffic	36





Glossary of Acronyms

AEol	Adverse Effect on Integrity	
ALGI	Abnormal Indivisible Load	
ANO	Air and Navigation Order	
AONB	Area of Outstanding Natural Beauty	
APP	Application Document	
BEIS	Department of Business Energy and Industrial Strategy	
CfD	Contract for Difference	
CIA	Cumulative Impact Assessment	
CoCP	Code of Construction Practice	
DCO	Development Consent Order	
DML	Deemed Marine Licence	
DMO	Destination Management Organisation	
EIA	Environmental Impact Assessment	
ES	Environmental Statement	
ESC	East Suffolk Council	
ETG	Expert Topic Group	
ExA	Examining Authority	
GIS	Gas Insulated Switchgear	
На	Hectares	
HE	Historic England	
HGV	Heavy Goods Vehicle	
HP3	Hornsea Project 3	
HRA	Habitats Regulations Assessment	
LCA	Landscape Character Assessment	
LMP	Landscape Management Plan	
LVIA	Landscape and Visual Impact Assessment	
MMO	Marine Management Organisation	
MoU	Memorandum of Understanding	
NE	Natural England	
NGET	National Grid Electricity Transmission	
NGV	National Grid Ventures	
NPS	National Policy Statement	
NSIP	Nationally Significant Infrastructure Project	
OCTMP	Outline Construction Traffic Management Plan	
OLEMS	Outline Landscape and Ecological Management Strategy	
OLMP	Outline Landscape Management Plan	
PD	Procedural Decision	
PPG	Planning Practice Guidance	
PRoW	Public Right of Way	
SAC	Special Area of Conservation	
SASES	Substation Action Save East Suffolk	
SCC	Suffolk County Council	
SoCG	Statement of Common Ground	
SDPS	Substation Design Principles Statement	
SPA	Special Protection Area	
SPR	ScottishPower Renewables	
UK	United Kingdom	
UXO	Unexploded Ordinance	
VP	Viewpoint	







WQ	Written Question
WR	Written Representation
WSI	Written Scheme of Investigation





Glossary of Terminology

Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
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.
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 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.
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).
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
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.





1 Introduction

- 1. The Examining Authority (ExA) issued Second Written Questions on 12th February 2021 (PD-030) in relation to East Anglia ONE North Limited and East Anglia TWO Limited (the Applicants) Development Consent Order (DCO) applications (the Applications) for the East Anglia ONE North project and East Anglia TWO project (the Projects). This document, submitted to the Projects' Examinations at Deadline 7, comprises the Applicants' comments on the responses of other Interested Parties to the ExA's Second Written Questions.
- 2. The Applicants' comments are detailed in numerical order based on the topics set out in the Second Written Questions. The Applicants have not included the questions where a response has not been submitted by an Interested Party at Deadline 7, nor have they included the original responses by the Applicants.
- 3. This document is applicable to both the East Anglia ONE North and East Anglia TWO DCO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.
- 4. Where an individual question relates to one project only it is clearly marked in column 3 of the tables in each volume. A yellow icon indicates the question is applicable to the East Anglia ONE North project, a blue icon indicates it is applicable to the East Anglia TWO project, and both a yellow and a blue icon indicate the question is applicable to both Projects.





2 Applicants' Comments on Responses to ExA WQ1

2.1 Overarching, general and cross-topic questions

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.0 Overarching,	general and cross-topic	c questions		
2.0.1	National Grid Electricity Transmission (NGET)	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. a) Confirm the boundaries of what would be operational land in this context, should the applications be consented. b) Provide further justification to support your view that permitted development rights should be retained. The dDCOs Commentaries on Schedule 1 Part 1 refer.	(General Permitted Development) (England) Order 2015 have been granted by Parliament. Accordingly these rights should not be taken away unless there is specific and relevant justification for such an approach. NGET have statutory duties set out in the Electricity Act 1989 and licence conditions to develop and maintain an efficient, economic and co-ordinated system of electricity transmission for the benefit of electricity consumers and the PD rights granted by parliament are required to enable NGET to comply with these duties to develop and maintain the network. The definition of Operational Land is relevant for the purposes of Class B (d), (e) and (f) only of Part 15 of Schedule 2 of the	Comments regarding the need and application of rights is noted.





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
			Withdrawing PD rights would inhibit NGET's ability to deliver its transmission license conditions and statutory duties.	
			As additional land beyond the operational land (constrained by Requirement 12) would be required for any extension of the NGET substation and such land wouldn't benefit from PD rights, there is no justification to withdraw NGET's PD rights generally (Class B (a), (b) or (c) or NGET's PD rights which only apply within operational land.	
2.0.2	East Suffolk Council (ESC)	Permitted Development Rights Planning Practice Guidance states that conditions restricting the future use of permitted development rights may not pass the test of reasonableness or necessity. Provide further justification for your views that such rights should be removed – what sort of development could be permitted under such rights and why is it necessary and reasonable to remove such rights? The dDCOs Commentaries on Schedule 1 Part 1 refer.	conditions. The PPG goes on to state that "The scope of such conditions needs to be precisely defined, by reference to the relevant provisions in the Town and Country Planning (General Permitted Development) (England) Order 2015, so that it is clear exactly which rights have been limited or withdrawn. Area-wide or blanket removal of freedoms to carry out small scale domestic and non-domestic alterations that would otherwise not require an application for planning permission are unlikely to meet the tests of reasonableness and necessity. The local planning authority also has powers under article 4 of the Town and Country Planning (General Permitted Development) (England) Order 2015 to enable them to withdraw permitted development rights across a defined area, where justified". ESC has provided suggested wording to the Examining Authority at Deadline 5 (REP5-047), this has also been set out below. Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015 (or any Order revoking or re-enacting that Order), no development shall be carried out under Schedule 2, Part 15, Class B (a), (d) or (f) without the submission of a formal planning application and the granting of planning permission by the local planning authority. In accordance with the PPG the scope of the requirement has been precisely defined identifying which rights are withdrawn. The wording has been deliberately chosen as to not provide a blanket removal of rights. It is not considered appropriate in this instance to utilise an article 4 direction as the information to make the decision to remove permitted development rights is available now and article 4 directions are utilised retrospectively to cancel rights at a later date. ESC considers that the rights under Class B (a), (d) and (f) of Part 15 of the GPDO should be withdrawn. These rights are as follows:	The Council's attempt to define the exclusion fails. For example, it purports to restrict the replacement of an electrical line. This demonstrates that the exclusion as drafted does not work.
			(a) the installation or replacement in, on, over or under land of an electric line and the construction of shafts and tunnels and the installation or replacement of feeder or service pillars or transforming or switching stations or chambers reasonably necessary in connection with an electric line.	
			(d) the extension or alterations of buildings on operational land.	
			(f) any other development carried out in, on, over or under the operational land of the undertaking.	
			Given the sensitivity of the substations site, it is not considered appropriate that if the DCOs are granted, once constructed the operator(s) of the site could alter	





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
			or extend the substations beyond that allowed by the DCOs without the need to submit a planning application and undertake any consultations.	
			ESC is also concerned regarding the known connection offers provided to Nautilus, Eurolink and Five Estuaries by National Grid at Friston if the National Grid substation is consented. ESC wants to ensure that the substations cannot be extended using permitted development rights.	
			ESC considers that any alteration or extension to the substations should be subject to a full and robust assessment of the development. Whilst it is appreciated that, under Article 3(10) of the GPDO, the relevant permitted development rights are not available in the event that the proposed development is EIA development, accretions which might not qualify as EIA development could still have the potential to cause harm in this sensitive location. Additionally, removal of those rights would remove any doubt as to whether the Requirements may not apply to development authorised by permitted development rights.	
	Substation Action Save East Suffolk (SASES)	Permitted Development Rights Planning Practice Guidance states that conditions restricting the future use of permitted development rights may not pass the test of reasonableness or necessity. Provide further justification for your views that such rights should be removed – what sort of development could be permitted under such rights and why is it necessary and reasonable to remove such rights? The dDCOs Commentaries on Schedule 1 Part 1 refer.	See SASES post ISH9 submission.	No further comment.
2.0.3	East Suffolk Council	East Suffolk Council Documents If not already done so, please enter into the Examination: a) SCC's letter of 10 November 2018 outlining the local authorities' response to SPR's Stage 3 consultation, referenced in [REP4-059] (page 7). b) ESC's Cabinet Report and Resolution of 5th January 2021 (ES/0610), referenced in [REP4-059] (page 4); and c) c) A copy of the draft agreement made under s111 of the Local Government Act 1972 in respect of mitigation/compensatory funds discussed in the report ES/0610 of ESC's Cabinet Report and Resolution of 5th January 2021, referenced on	 a) A copy of ESC's (formerly Suffolk Coastal District Council and Waveney District Council) and SCC's joint response to the Stage 3 consultation on EA1N and EA2 (Phase 3.5 consultation) has been provided in Appendix 1. b) A copy of ESC's Cabinet Report of 5 January 2021 and minutes of the meeting have been provided in Appendix 2. c) A copy of the draft s111 Agreement for EA1N and a copy of the draft s111 Agreement for EA2 has been provided in Appendix 3. 	No further comment.



ExA. Question	Question	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
Ref.	addressed to	<u> </u>		7
		page 4 of [REP4-059].		
2.0.4	East Council East Council Suffolk Council Suffolk Council Suffolk Council Cou	No further comment.		
	1	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		No further comment.
	SASES	The state of the s	(a) Adequacy of the proposed package The case put to Cabinet of ESC on 5 Jan 2021 for approval was essentially that the Council had negotiated "an improvement on what the Applicants had offered at the date of the Cabinet meeting on 7 January 2020, which at that time was not considered sufficient to adequately compensate for the impacts of the projects and overcome the Council's significant concerns". However no evidence was presented that any assessment had been made of the damage and losses that would be sustained by the various communities and local businesses given the scenarios where one or both projects were to be consented. The sums appear to have been arbitrarily agreed and there does not seem to be any formula or valuation metric by which these amounts have been determined. No justification in terms of the quantum has been provided in the ESC cabinet paper. The sums are small (i) relative to the environmental and local damage which will be inflicted and the period over which that damage will be suffered, (ii) relative to the capital investment in these projects and (iii) relative to the value which Scottish Power will create from such investment; the very giving of DCO consent will substantially increase the realisable value of the two projects. There could be a number of approaches to valuation. If for example the area of landfall, the cable route and the area surrounding the Friston site was regarded as a financial asset, what is the diminution in the asset value both during construction and during operation given loss of tranquillity and amenity, landscape damage, heritage damage,	Noted.





ExA. Ref.	Question	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
				ecological damage etc? That might be a basis for assessing the level of compensation offered. Significant damage to the tourism economy cannot be ruled out given the deficiencies in the Applicants' analysis and the work carried out by the DMO. A variety of scenarios could be developed to assess the net present value of that loss of income plus of course the reduction in employment and consequential financial effects. Those scenarios could include a minor, moderate and major adverse effects which would provide some sort of framework to judge the financial mitigation on offer. Analysis could be conducted as a result of the loss of farming income as a result of the loss of agricultural land. Again some sort of net present value calculation could be conducted. In addition perhaps some sort of financial analysis can be assessed by reference to the loss of wellbeing in the villages and communities negatively impacted.	
				(b) Additional measures	
				This is difficult as money cannot be adequate compensation for the environmental damage and damage to wellbeing. Perhaps a better approach would be to recognise that the impacts cannot be mitigated and the village and its surrounding area cease to be places where the current population wishes to live.	
				(c) Arrangements for distribution	
				Given the local communities views on financial compensation and the all-consuming effort required to engage with the examination, this is not a very fruitful debate at present. However the following observations might be made. The merger of Suffolk Coastal District Council with Waveney District Council has left local residents with the sense that their interests are no longer being properly represented. If there are to be such funds the question is whether it should be under the control of the District Council or of an independent body whose interests are focused most closely on the immediate areas which will suffer the greatest amount of harm.	
2.0.5		East Suffolk Council	Proposed s111 Agreement 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: Table 2 – Key mitigation/compensation measures now proposed. The ESC Cabinet approved the report's recommendation which, while maintaining significant concerns in relation to a) the impact of operational noise levels at the onshore substations site which	 a) There are two proposed s111 Agreements one relating to each development (EA1N and EA2) and they secure the following sums to be utilised to provide compensatory measures in relation to some of the adverse impacts as a result of the developments: £200, 000 per project to support ecological, landscape and habitat enhancements, improve the existing public rights of way network and strengthening existing qualities of the Area of Outstanding Natural Beauty (AONB), in the landfall to substation area – as a result of significant impacts of the projects identifies in the LVIAs including on the AONB, disruption caused to public rights of way during construction and residual impacts on bats identified. £177,500 per project to undertake landscape, environmental, access and amenity improvements and enhancements to Friston and its vicinity – due to significant impacts identified in LVIAs on landscape character, visual amenity and public rights of way during construction and operation. 	No further comment.



SCOTTISHPOWER RENEWABLES	

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
		will have an adverse impact on residential amenity and the character of the area until such time that appropriate and suitable mitigation or compensation is secured and	 £200,000 per project to contribute towards measures relating to the preservation and enhancement of heritage assets and their settings in Friston and its vicinity – as a result of impacts on the setting of heritage assets and loss of historic landscape character around the substations site. £465,000 for EA2 project only, to support access, environmental and ecological enhancements to the AONB – due to significant residual 	
		b) 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; and maintaining concerns with regard to the design of the onshore substations until such time that the Council's concerns are adequately and appropriately addressed; expressed the view that: [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; while acknowledging that: 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	 impacts identified on the AONB from the offshore turbines £88,500 to administer the fund. ESC considers that the s111 Agreements will secure funding in order to provide compensatory measures to help address the residual adverse impacts identified within the Environmental Statements (ESs) as set out above. Although there are disbenefits still outstanding that require further mitigation as has been submitted in written statements and oral evidence. The Council, as set out in ESC's Cabinet Report, is moving towards a predominantly neutral position in relation to its position on the overall balance of adverse impacts against benefits. In so doing, ESC has taken into account the compensation secured in the agreements. ESC notes that the Applicants will not be asking the Examining Authority to attach weight to this compensation in its decision-making. b) ESC does not consider that there are any additional measures which should be provided through the s111 Agreements as they seek to secure sums to provide compensatory measures to offset harm identified in the ESs. The s111 Agreements do not seek to secure mitigation in relation to specific impacts. c) Specific arrangements for distributing compensatory funds have not yet been determined but it is anticipated that a number of the funds would be distributed directly in the affected areas, whereas others may be subject to a bid-in process, whereby a board of appropriate representatives will be convened to assess applications and distribute 	
		enable the Council working with partners to provide additional improvements in addition to the embedded project mitigation. The views of parties are sought on: 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); b) Additional measures that might be required; and c) Arrangements for distributing compensatory funds.	funding accordingly. ESC will work with the local community in relation to this matter where appropriate.	





ExA. Question (Ref. a	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
1	Suffolk County Council (SCC)	Proposed s111 Agreement 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: Table 2 – Key mitigation/compensation measures now proposed. The ESC Cabinet approved the report's recommendation which, while maintaining significant concerns in relation to a) 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 appropriate and suitable mitigation or compensation is secured and b) 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; and maintaining concerns with regard to the design of the onshore substations until such time that the Council's concerns are adequately and appropriately addressed; expressed the view that: [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; while acknowledging that: 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	In respect of question a) SCC believes that the S111 does go some way towards compensating for the likely negative impacts associated with the construction and operation of the proposed developments. In respect of b) SCC believes that additional money should be made available to offset the likely negative impacts on local communities and the Area of Outstanding Natural Beauty. In respect of c) SCC believes that ESC is well placed to distribute the allocated funding.	No further comment.



ExA. Question Question Ref. addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
	enable the Council working with partners to provide additional improvements in addition to the embedded project mitigation.	1	
	The views of parties are sought on:		
	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);	t 3	
	b) Additional measures that might be required and		
	c) Arrangements for distributing compensatory funds.	<i>'</i>	



2.0.7 ESC Substations Design Principles Statement (SDPS) [REP4-029]

- a) Does the SDPS provide sufficient information to allow a judgement to be made that the proposals:
 - 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)?
- b) If not, what additional information might be provided and how can it be secured?
- 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 a recognised design qualification and if not, and in the absence of such a qualification, how will this skill gap be remedied?
- 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:
 - 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.

a) The detailed design of the substations has been deferred to the post consent design refinement stage. Therefore, the Substations Design Principles Statement document provides limited details in relation to the external appearance of the development.

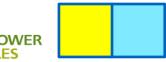
An important consideration in relation to the use of natural resources relates to the extent of land take by the projects. ESC considers that the Substations Design Principles Statement should include a clear commitment within the design principles to make every reasonable effort during the design refinement process to reduce the dimensions of the onshore substations.

ESC also considers that in order for the design of the substations to be considered sustainable, durable and adaptable consideration of future needs is necessary. ESC supports SCC in their recommendation that an additional design principle be included within the document to reflect the need for the projects to have regard to policy changes and technological advancements which may occur in between consent and detailed design work. ESC also considers that full consideration must be taken of the known future National Grid connections which have been offered and are therefore reasonably foreseeable. As stated in previously in the LIR (REP1-131) and during issue specific hearings (REP3-094, REP5-045).

- b) As stated above modifications to the design principles are considered necessary as set out in response to a).
- c) This is a question most appropriately answered by the Applicants.
- d) This is a question most appropriately answered by the Applicants.
- e) This is a question most appropriately answered by the Applicants. ESC will provide further comments as appropriate in response to the answers provided by the Applicants.

Within the Substations Design Principles **Statement** (SDPS) (REP4-029) it is recognised 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, efficiency 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.

The Applicants note the valuable feedback received from the Panel and Interested Parties on the *SDPS* (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-judged, fettered or constrained. The Applicants will submit an updated SDPD at Deadline 8 which will, amongst other matters, include further details on supporting materials to illustrate the influence of colour finishes/materials on buildings and provide further clarity on community consultation proposals.



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	
before the close of the Examination and the	
Design and Access Statement amended	
accordingly?	

4th March 2021



SASES

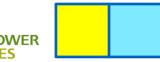
(SDPS) [REP4-029]

- a) Does the SDPS provide sufficient information to allow a judgement to be made that the proposals:
 - 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)?
- b) If not, what additional information might be provided and how can it be secured?
- 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 a recognised design qualification and if not, and in the absence of such a qualification, how will this skill gap be remedied?
- 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:
 - 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.

- Substations Design Principles Statement | b) SASES view is that insufficient detailed work has been undertaken on the design of any of the substations and related infrastructure, especially the NG substation and cable sealing ends, and that it would not adequately protect the interests of the community to allow all this work to be post-consent. A secured commitment to independent power engineering (as well as aesthetic e.g. Design Council) design oversight of the substation design, with a secured commitment to a revised OLMP and secured release of any land subsequently found not to be essential might be considered partial mitigation for the current situation.
 - c) SASES proposal that independent power engineering oversight be provided for the projects could mitigate any skills gap of a Design Champion. Such expertise might be on recommendation of the Royal Academy of Engineering or the Institution of Engineering & Technology, or sourced from one of the several UK-based Engineering consultancies of international repute in Power Engineering.

- b) Please see the Applicants' response to SCC to WQ2 2.0.7 above.
- c) The Applicants maintain that an independent power engineering oversight of the detailed design is not appropriate. The Applicants consider that an appropriate process for design review and feedback has been set out within the SPDS (REP4-029).

The Design Champion will coordinate the progression of good design between the Projects and National Grid and hold to account the design team to deliver the agreed design objectives.



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 before the close of the Examination and the Design and Access Statement amended	
accordingly?	



ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.0.10	NGET	(SDPS) 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: 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? b) Respond to the view of the County Council that the approach taken by NGET to supply	a) The SDPS is a document produced by the Applicant and it is for the Applicant to confirm whether any further revisions of that document will be submitted to the Examination. NGET can confirm, however, that it has been consulted by the Applicant on the content of the current SDPS and can also confirm that it will be bound by the SDPS and will accord with the principles therein when seeking to deliver its infrastructure. b) In order to meet the current Connection Agreement dates for the EA1N and EA2 projects, NGET has had to accelerate its tender and design process. NGET's approach, therefore, will not slow the development of its final design solution. As noted in Paragraph 15 of Appendix A of the SDPS, there are a number of important and fundamental technical constraints which are inherent to the design of substations, particularly in respect to the location, form and appearance of the external electrical equipment. The layout of the substation will be determined by its functional demands, safety requirements, and practical restrictions and considerations which will result in a safe and efficient electrical layout. As such, in order to comply with safety, maintainability and quality of supply obligations, the design criteria for substation layouts are relatively rigid. As explained the opportunities to reduce the parameters are constrained by the type and size of equipment within the NGET substation and the substation itself must meet electrical safety requirements. However NGET, in accordance with its statutory duties and published commitments and policies, will only build new infrastructure if it is needed and, when doing so, will seek to reduce the effect of its work. c) The SDPS is a document produced by the Applicant and it is for the Applicant to confirm whether any further revisions of that document will be submitted to the Examination	No further comment.



ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.0.11	NGET	Substations Design Principles Statement (SDPS)	a) NGET understands that the initial comments in relation to the EA1N substation and the Hornsea One Substation are for the applicant to respond to.	No further comment.
		that they consider that 3.23ha is not the smallest substation footprint that can be	stated in the requirements in order to allow for micro-siting of the substation within Work 41. The wider area around the NGET substation which we understand to be included in the 7ha referred to by SASES is required for landscaping and other works which the Applicant will undertake and which will	
		reserved for the NGET substation. 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.	fall outside Work No. 41. b) In line with NGET's section 9 duties "to develop and maintain an efficient, coordinated and economical system of electricity transmission" NGET will only build the most efficient design for this project and this will be developed through the detailed design process.	
		b) Can a more efficient design be proposed in terms of footprint?c) Can any further reduction in size or scale be achieved for the proposed sealing end compounds?	c) The detailed design of OHL works and CSEC's are not yet finalised and therefore, exact alignment, size and location subject to detailed design / micrositing. The orientation of the OHL entry can influence the orientation and footprint of the CSE Compound. Where the landscape permits and tower orientation permits, a CSE compound is typically oriented perpendicular to the incoming line to simplify the arrangement and minimise the overall footprint.	
			The compound footprint is governed, in part, by the minimum horizontal design safety clearance for 400kV equipment of 4.6m plus a further allowance to provide ease of construction and maintenance.	
			The overall compound size also has to provide room for the temporary accommodation of CSE testing equipment. In summary, it is unlikely that the size or scale of the sealing end compounds will change significantly but this is subject to the finalised detailed design and micrositing.	
2.0.12	ESC	Design evolution 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.	ESC considers that this is a question more appropriate for the Applicants to answer ESC will provide further comments as appropriate in response to the answer provided by the Applicants.	No further comment
	SASES	Design evolution 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.	SASES is concerned that the current proposals are still overly conceptual and seem very dependent on supply chain guidance, suggesting insufficient detailed design work has been completed to date. SASES acknowledges that that the Applicants have successfully implemented a 700MW substation at Bramford for EA1 but the proposed subsequent projects should be an opportunity for significant design improvement and refinement rather than duplication, especially given the vastly greater sensitivity of the Friston site compared with the Bramford site. Evidence of a clearly executed design process with only limited (and documented) issues	The Applicants note that the provisions in NPS EN-1 allow for an iterative design process so that sufficient flexibility is maintained during the consenting process. The Applicants emphasise that sufficient design information has been provided within the <i>SPDS</i> (REP4-029) at this stage to allow for a robust assessment based upon the worst case design parameters. During detailed design, post consent, the Applicants will refine the design of the onshore





ExA. Ref.	Question	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
				outstanding would be a starting point for addressing this concern. With reference to the National Grid substation no design evolution seems to have occurred as it has stated that "the design parameters for the sub-station have been provided to the Promoter by NGET. These are standard size requirements for the sub-station required to connect EA1N and EA2 projects." See letter from Brian Cave Leighton Paisner to Mr Paul Chandler dated 24 November 2020 submitted by SASES at Deadline 3 REP3-127. There is no evidence of any design evolution in respect of the cable sealing ends Although these presumably have "standard size requirements".	substation within the parameters set out within the DCO application. At this stage the Applicants consider that their engagement with the supply chain to date has exceeded that of other projects and requirements of NPS EN-1.
2.0.13		ESC	Cumulative Effects Assessment at the substations site 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 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.	ESC considers that a full and robust cumulative impact assessment (CIA) has not yet taken place in relation to the combined effects on the area north of Friston. Although a cumulative impact assessment has been prepared as part of the Environmental Statements in relation to the EA1N and EA2 substations and National Grid substation and infrastructure, this has not included consideration of the known future projects with connections offers at this site should the National Grid substation be consented. In order to connect these known future projects (Nautilus, Eurolink and Five Estuaries) the National Grid substation would need to be extended. Therefore, the Examining Authority along with ESC are not able to properly consider the accumulation or interrelationship between effects as a whole without this assessment. ESC will provide full comments once this assessment has been submitted.	The Applicants consider that their reponse provided to 2.0.14 reflects the points raised by ESC, in summary there remains insufficient information to undertake the assessment requested. In summary, 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 – 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 Statement of Common Ground (SoCG) with NGV (REP1-062). The areas are in the public domain and the likely
		SSC	Cumulative Effects Assessment at the substations site 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 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.	SCC defers to ESC's position.	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. Furthermore, we are surprised by the continued reference to Five Estuaries and North Falls. As confirmed by NGESO these projects do not have a connection agreement for the Leston Area (REP3-110).
		SASES	Cumulative Effects Assessment at the substations site 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 additional	SASES during the course of the examinations has provided written representations and submissions in relation to a wide variety of impacts and as part of those representations and submissions has commented upon the mitigation offered. In terms of compensation funds these are regarded as inadequate not least for the reasons set out in relation to ExQ 2.0.4. In terms of mitigation this is either inadequate or is still at this late stage of examination insufficiently assessed or defined. The proposals made by the Applicants (but not National Grid) to reduce the height and footprint of the Scottish Power substations whilst welcomed do not materially reduce the landscape, heritage or other impacts of putting such a large piece of industrial infrastructure in a	No further comment.





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
		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.	buildings and which has an existing flood risk. The economic benefits locally, particularly long-term, are non-existent and this has to be set against the risk	
2.0.14	NGET	Cumulative Effects Assessment 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. 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	The Applicant has undertaken all environmental assessment work in support of its applications for these DCOs. In doing so, the Applicant has considered the requirement for cumulative effects assessment and the projects to include therein, and is therefore best placed to respond to this question. NGET does not have any information that it can provide to assist with the assessment of cumulative effects beyond information already made available in the context of this examination or other information already made publically available by the promotors of these projects.	No further comment.



ExA. Ref.	Question	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
			uncertainty and confusion over the possible implications for the area if these other projects are pursed in this location. Effectively ignoring them is not helpful to the Examination.		
			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:		
			"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'"		
			And paragraph 3.4.2 that:		
			"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."		
			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.		



NGV

Cumulative Effects Assessment

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.

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 pursed in this location. Effectively ignoring them is not helpful to the Examination.

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:

"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"

And paragraph 3.4.2 that:

NGV has two separate connection agreements with the National Grid Electricity System Operator (ESO) for both the proposed Nautilus and EuroLink projects. Each of these connection agreements provide a grid connection offer to a new 400 kilovolts (kV) substation located close to the Sizewell 400kV network, provisionally referred to as 'Leiston 400kV' or the 'proposed Leiston substation.'

Should consent for the NGET substation at Friston as proposed by SPR be awarded, consideration will need to be given to the viability of this location offering a connection to the National Transmission System for the Nautilus and EuroLink projects.

As per NGV's draft SoCG with the Applicant (document reference: ExA.SoCG-19.D1.V1) at present, neither Nautilus or EuroLink are sufficiently defined to allow for the reasonable assessment of cumulative impacts.

However, in response to question 2.0.14, NGV are able to assist the applicant, and the ExA to help inform any further cumulative effects assessment considerations.

For Nautilus and/or EuroLink to connect to the proposed NGET substation at Friston, it is understood that the proposed substation would require an extension for each additional project. Consenting and technical considerations for the proposed substation are for NGET to advise upon. NGV defer to NGET for specific requirements to accommodate extension bays to the proposed Friston substation.

Each of the two Interconnector projects would also need a converter station in proximity to any substation. A typical operational footprint for a converter station covers an area of five hectares (12 acres). The exact size and height will depend upon the specific proposals for mitigation and construction. AC cabling would be required between the converter station and substation for each Interconnector project. NGV's Nautilus 'Frequently Asked Questions' document (May 2020) sets out what is required to connect an Interconnector to the National Transmission System and is available via the following link: https://www.nationalgrid.com/document/132456/download

NGV cannot provide further detail on the location and routeing of these components at this stage, given that both projects are at a pre-consultation and pre-EIA scoping stage.

The Applicants note NGV's very clear statement that neither Nautilus or EuroLink are sufficiently defined to allow for the reasonable assessment of cumulative impacts. In particular, NGV cannot confirm their grid connection location nor provide further detail on the location of their converter station or cable routeing, given that both NGV projects are at a preconsultation and pre-EIA scoping stage."



"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."

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.



2.2 Aviation

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.1 Aviation				
2.1.3	Defence Infrastructure Organisation	Military Aviation The draft Statement of Common Ground (SoCG) between the Applicants and the Ministry of Defence [REP3-078] appears to state that all matters are agreed. a) Confirm is this is the case, and if so when a signed SoCG will be submitted. b) If this is not the case, provide an update on progress and next steps.	In response I can confirm that all matters are agreed between the MOD and the applicants and that the signed SoCG will be submitted for Deadline 8.	The Applicants note that the Defence Infrastructure Organisation responded to ExWQs2 under a separate letter and confirmed in that letter that "all matters are agreed between the MOD and the Applicants and that the signed SoCG will be submitted for Deadline 8". The Applicant therefore has no further comments.
2.1.4	Defence Infrastructure Organisation	Aviation Lighting Requirement 31 of the dDCO contains two parts, of which part (2) is new and differs from that contained within the draft Statement of Common Ground with the CAA [REP-1-070] and the last correspondence from the Defence Infrastructure Organisation [REP3-105]. Part 2 of draft R31 states: (2) Such lights will be operated at the lowest permissible lighting intensity level. Confirm or otherwise that you are content with the revised wording.	In response I can confirm that the MOD has been advised by the applicant that the wording added to Requirement 31 has been included to address concerns raised by Natural England and other consultees relating to the impacts of aviation lighting fitted to the wind farm on seascape. The applicant has identified that there is provision for lighting required under the Air Navigation Order (ANO) to be operated at 10% of the maximum lighting intensity required when conditions of visibility allow this. MOD lighting requirements will be separate to those prescribed under the ANO. Should MOD requirements include visible lighting, they will relate to low intensity lighting defining the lowest permissible lighting intensity necessary. As such, there would be no further scope to reduce the intensity of this lighting during its operation. Therefore, I can confirm that the MOD is content for this wording to remain in the Requirement.	The Applicant notes that the Defence Infrastructure Organisation responded to ExWQs2 under a separate letter and confirmed in that letter "In response I can confirm that the MOD has been advised by the applicant that the wording added to Requirement 31 has been included to address concerns raised by Natural England and other consultees relating to the impacts of aviation lighting fitted to the wind farm on seascape. The applicant has identified that there is provision for lighting required under the Air Navigation Order (ANO) to be operated at 10% of the maximum lighting intensity required when conditions of visibility allow this. MOD lighting requirements will be separate to those prescribed under the ANO. Should MOD requirements include visible lighting, they will relate to low intensity lighting defining the lowest permissible lighting intensity necessary. As such, there would be no further scope to reduce the intensity of this lighting during its operation. Therefore, I can confirm that the MOD is content for this wording to remain in the Requirement." The Applicant has no further comments





2.3 Biodiversity, Ecology and Natural Environment

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7				
2.2 Biodiversity, E	2.2 Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))							
2.2.2	Natural England (NE)	The Applicant's Habitats Regulations Derogation Case [REP3- 053]: scope Please confirm that you are satisfied with the European sites and qualifying features that are considered in [REP3-053] (see Table 1.1 of each document). If you are not, indicate which other sites or features you consider should be included and why.	response will be dependent on ongoing collision risk modelling updates. Therefore, our position per our Deadline 3 Appendix 11	No comment.				
	Marine Management Organisation (MMO)	The Applicant's Habitats Regulations Derogation Case [REP3- 053]: scope Please confirm that you are satisfied with the European sites and qualifying features that are considered in [REP3- 053] (see Table 1.1 of each document). If you are not, indicate which other sites or features you consider should be included and why.	The MMO defers to Natural England on matters related to Habitats Regulations and the appropriateness of the designated sites and protected features listed by the Applicant in REP3-053.	No comment.				
2.2.8	NE	The Applicant's Habitats Regulations Derogation Case [REP3-053]: Imperative Reasons of Overriding Public Interest (IROPI) a) Please expand on the information in Section 5.2.2 of [REP-053] regarding the significance of the contribution each project is anticipated to make to the claimed public interests, providing a clear reasoning of what the project contribution would be. b) The information in Section 5.2.4 regarding overriding reasons sets out the Applicant's position on the effects upon designated sites. Please comment on whether the overriding reasons case could be affected by amended predictions of the effects of the proposals and a conclusion of AEOI for any of these designated sites.	Natural England's remit doesn't allow for us to make comment on IROPI cases.	No comment.				



ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.2.12	NE	The Applicant's Offshore Commitments [REP3-073]: Ecological consequences [REP3-073] discusses the reduction in disturbance anticipated from the 2km buffer. What are the ecological consequences of the 2km buffer or larger buffer in terms of the conservation objectives of the Outer Thames SPA?	As set out in our previous advice [REP1-172, REP4-087, REP4-089 and Appendix A17 at Deadline 6] one of the conservation objectives for the SPA is to maintain the distribution of red-throated diver within the SPA. Displacement from their foraging and rafting locations within the SPA would reduce the ability (integrity) of the site to support the species for which the site is designated across its extent. Any buffer between the proposal and the SPA which reduces the extent or the intensity of the displacement will have some ecological benefit compared to no buffer being applied. However, given the SPA is already considered to be in unfavourable condition, the ecological consequences of the project must, as a minimum, be neutral to avoid further hindrance of the conservation objectives for the site. Natural England advises that for both EA1N and EA2 to provide the sufficient degree of certainty of achieving that neutral impact, the buffer between the projects and the SPA must be at least 10km. At any distance less than this the conservation objectives for the site will be hindered and as a result it will not be possible to conclude no AEol. Please be advised that disturbance, from e.g. construction and maintenance vessels periodically transiting the SPA, is different to ongoing displacement from a structure that is constantly present like a windfarm. Depending on the vessel transit routes to the site the 2km buffer (per se) may not reduce vessel disturbance to RTD, hence the need for the Best Practice Red-throated Diver protocol. Natural England advises the protocol should mitigate the impacts from vessel disturbance.	No further comment.
2.2.13	NE	Offshore Ornithology Cumulative and In-Combination Collision Risk Please comment on when the mitigation and additional baseline data for Hornsea Project 3 is likely to be made available. To Applicants only – Should this data be submitted before the close of the EA1N and EA2 Examinations, then please clarify how long it would take you to update and submit amended collision risk and displacement figures for your cumulative/incombination assessments?	Natural England has contacted BEIS and we are expecting a further request to go to Ørsted in consultation with Natural England to confirm the figures for HP3 for consideration in open/active NSIP cases. Therefore, we advise consulting with BEIS for timeframes.	No further comment.
2.2.15	NE	Benthic ecology: Security for reef buffer In NE's D5 submission [REP5-085] it states that it is concerned that the Applicant's request to retain the ability to discuss reef buffer requirements on a case by case basis during the preconstruction period, is not condition-able and therefore the mitigation remains unsecure, even if explained within a listed DCO/dML plan. How would NE/the Applicants suggest this could be secured?	Natural England note that it is for the applicant to draft conditions. However, we are willing to engage with the Applicant on any draft wording for any condition/s.	No further comment.
	MMO	Benthic ecology: Security for reef buffer In NE's D5 submission [REP5-085] it states that it is concerned that the Applicant's request to retain the ability to discuss reef buffer requirements on a case by case basis during the preconstruction period, is not condition-able and therefore the mitigation remains unsecure, even if explained within a listed DCO/dML plan. How would NE/the Applicants suggest this could be secured?	The MMO will maintain a watching brief on this issue.	No further comment.



ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.2.16	ММО	Benthic ecology: Reef survey timing and commencement Please comment on NE's contention that unless both the UXO clearance and commencement of the OWF installation occurs within 12-18 months of the survey being undertaken a second Annex I reef survey and report will be required prior to construction commencing. How would this be secured?	The MMO will maintain a watching brief on this issue and defers to Natural England on what is required for this to be secured.	No further comment.
2.2.17	MMO	Benthic ecology: Cable installation in mixed sediments NE's D5 submission [REP5-085] states that as	The MMO will maintain a watching brief on this issue.	No further comment.
		submitted into examination for Hornsea Project 3, Norfolk Vanguard and Norfolk Boreas areas of mixed sediment have proven to be more challenging for cable installation. Case example is cable installation within the Wash and North Norfolk Coast SAC where cables have been sub-optimally buried in areas of mixed sediment and post installation requests have been submitted for cable protection. In order to commit with any certainty that cable protection can be avoided in areas of potential reef Norfolk Boreas utilised available geotechnical investigations to undertake a cable burial assessment which was submitted into examination to provide the necessary evidence to support the proposals. Therefore, NE advises in [REP5-085] that something similar for these projects is submitted into the examination for EA1N and EA2 to demonstrate that cables can be buried to the optimum depth in areas of 'unavoidable' reef or assures that that sub-optimally buried cables would not require external protection i.e. <1m a) Have the applicants already undertaken such geotechnical investigations? b) If not, then are such investigations to be undertaken and submitted before the close of these examinations? c) If (b) is the case, then please explain the process by which the extent of cable protection that is		
		required is to be assessed and how potential impacts on Sabellaria reef resulting from cable protection can be adequately mitigated.		





2.4 Historic Environment

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7				
2.8 Histor	Historic Environment							
2.8.1	Suffolk County Council	Archaeology – Outline WSI Earthwork Survey In your Deadline 4 response [REP4-067] you note that various sections of the outline WSI should set out the need for completion of the earthwork survey to cover areas identified as inaccessible or only part surveyed. In response, the applicant provided some text [REP5-011] to be added to the WSI at Deadline 6. Would such text allay your concerns?	The acknowledgement by the Applicants that completion of the earthwork survey is still required and commitment to undertaking this work through the inclusion of the proposed wording within the OWSI, would allay SCC concerns.	No further comment.				
2.8.8	Historic England (HE)	OLEMS a) What effect, if any would do you think the proposed landscaping contained in the revised OLEMS [REP3-030] would have on any harm caused to the significance of the church by the proposals? b) Could increased landscaping have an adverse effect by, for instance, altering the setting of the Church?	Overall Historic England appreciate the efforts that the applicant has made to establish mitigation and a planting scheme that is in keeping with the landscape and the changes that have been made to improve this element of scheme in this iteration of the OLEMS. This does not however change our fundamental concern about the impact of the scheme on the setting of the church, or our findings in relation to the harm to the significance of the church of St Marys at Friston.	No further comment.				
			We are of the view that the development of the sub-stations both individually and in conjunction with each other and with the NGET substation scheme are of such a magnitude and scale that they would still result in a high degree of harm to the significance of the designated asset. This is from the restrictions and changes to the views of the church, and the landscape scale changes of what will be physically seen in the area to the north of the church, the loss of key views from the immediate setting of the church, the loss of ancestral footpaths to the north and the loss off the church as a marker in the landscape in views from the north towards Friston.					
			We are mindful that the screen planting is partly to provide mitigation for the historic environment. By seeking to mitigate the effects of the scheme, because it is too large and too closes to the church, the proposal includes a significant amount of new planting. Whilst we are aware of the potential environmental benefit, we have also concluded that the planting would be likely to have a harmful effect on the historic environment in its own right. Although the mitigation planting seeks to replicate the natural landscape, it will continue to introduce new elements of planting to the landscape that were not previously there, and further reducing the prominence and dominance of the church in the landscape particularly in key views from the lands that forms part of this setting.					
			The changes made in this OLEMs plan, retention of existing woodland and changes to the screen the development from the north in particular are welcomed, however these are relatively small changes to the overall scheme and do not affect our overall fundamental objection. This is particularly apparent in those key views of the Church from Moor Farm, where the development would cut across the footpath					



ExA. Question Ref.	Question addressed to		ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
		I		which runs from Friston to Moor Farm to the north of the church. The use of planting to here to screen the development would have the effect of screening out the substation in the immediate foreground but, because it would continue to block and restrict the key views of the church and remove those views its remains harmful.	
				Both the scheme and the mitigation are harmful, and because one seeks to soften or reduce the dominance of the other does not necessarily reduce the overall effect of harm. Again because it is natural it is not necessarily appropriate in relation to the setting of an historic asset. Retention of existing planting is likely to increase the screening again in some areas however the overall reduction of impacts is relative modest overall, and would in our view be negligible in relation to reducing the overall effects of the scheme on the significance of the church.	
				Again we feel it is also worth stating that we maintain a concerns as to whether the planting would be effective in its job of mitigating the impact of the development on the significance of the church, this is due to the concerns raised by council and other in relation to growth rates. It the OLEMS proposal is not effective, and would not end up screening the development then the overall harm would be exacerbated for longer and would be more damaging. We are aware the developer have sought measures to increase the success of the planting, and we are aware this is not our area of expertise, however the failure of the scheme or the failure to achieve the projected growth rates would result in an increased level of harm to the historic environment.	
2.8.9	Historic England		Statement of Common Ground – Offshore The applicants state [REP5-012] that the updated SoCG [REP5-032] for offshore matters is all agreed subject to your review of the updated draft DCO submitted at Deadline 5. Confirm (or otherwise) that all offshore matters as in the SoCG [REP5-032] are agreed.	As detailed in our Deadline 5 written submission, we are currently discussing with the Applicant Schedule 13, Part 2, 17(1)(g)(vi) & Schedule 14, Part 2, 13(1)(g)(vii). Subject to this matter being resolved we envisage an updated Statement of Common Ground can be submitted by the Applicant for Deadline 7	The Applicants have updated these conditions within the draft DCO submitted at Deadline 7 to address HE comments and anticipate submitting a signed and agreed SoCG at Deadline 8.





2.5 Landscape and Visual Impact

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.10 Landscape and V	isual Impact			
2.10.1	ESC	Outline Landscape and Ecological Management Strategy (OLEMS) Section 3.3 OLEM Design Principles [REP3-030] sets out national and local design policies and Section 3.4 Consultation summarises the detailed comments provided by the OLMP technical working group and LVIA ETG. Explain how the OLEM proposals respond to the national and local policy framework and the comments of the consultation bodies and comment on whether policy objectives are being met.	states that the aim in respect of landscape should be to minimise harm and provide reasonable mitigation where possible and appropriate. NPS EN-3 states that projects should demonstrate good design in respect of landscape and visual amenity. Whilst accepting that the landscape planting measures also have a key role in mitigating the landscape and visual impacts arising from the proposed development, the measures also need to be	No further comment.
	SCC	Outline Landscape and Ecological Management Strategy (OLEMS)	SCC defers to ESC's position.	No further comment.





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
	SASES	Section 3.3 OLEM Design Principles [REP3-030] sets out national and local design policies and Section 3.4 Consultation summarises the detailed comments provided by the OLMP technical working group and LVIA ETG. Explain how the OLEM proposals respond to the national and local policy framework and the comments of the consultation bodies and comment on whether policy objectives are being met. Outline Landscape and Ecological Management Strategy (OLEMS)	The emphasis in the National Design Principles is that potential	The Applicant considers that the potential landscape
		Section 3.3 OLEM Design Principles [REP3-030] sets out national and local design policies and Section 3.4 Consultation summarises the detailed comments provided by the OLMP technical working group and LVIA ETG. Explain how the OLEM proposals respond to the national and local policy framework and the comments of the consultation bodies and comment on whether policy objectives are being met.	landscape impacts of NSIPs should be minimised through careful design which begins with siting. SASES consider that the Applicants have not demonstrated that when choosing the site at Friston they had adequately understood the landscape (including historic landscape) sensitivities of the area. Consequently, the OLMP is not able to adequately mitigate the harm to the landscape which remains substantial. Paragraph 64 claims that these National Policy principles will be achieved via planting proposal which will contribute to 'to the enhancement of the local landscape character.' However, the LVIA accepts that even after 15 years the landscape effects on the area to north of Friston will be 'Significant, longterm and permanent.' There will be no enhancement of the local landscape character. The OLEM does not enable the scheme to meet national policy objectives to minimise landscape impacts. With regard to Local Design Principles the Suffolk Landscape Character Assessment also notes that 'The right choice of siting, form, orientation and colour' can make a considerable contribution to mitigating impact. Key issues within the Suffolk Coastal Local Plan which are not met by the development are the delivery of high quality design that respects local character and is locally distinctive. The historic footpath from Friston to the north (FP 6) will be lost as a PRoW and obliterated as a feature on the ground. This does not meet the policy objectives that development should demonstrate an 'understanding of the key features of local character' and does not 'enhance these features through innovative and creative means.' Local Policy objectives that the overall scale and character of the development is well related to the surroundings are not met. Within Section 3.4 of the OLEMS, with regard to consultation, paragraph 72 lists 'reducing the landtake of the NGET substation' as one of the means of mitigating the impacts of the development. However there appears to have been no evident effort to reduce the land take. For ex	impacts of the Projects substations have been minimised through careful design including siting. The site at Grove Wood was considered to represent the best opportunity to minimise and localise, insofar as possible, the extent and magnitude of landscape and visual effects; avoid significant effects on the nationally designated landscape of the AONB; including 'whole project effects' in combination with the Projects offshore windfarms, and cumulative effects with the proposed Sizewell C development, avoiding harm to the AONB through its potential 'severance' and compromising its integrity and special qualities. Through the process of consulting upon, developing and establishing the OLEMS, the NPS policy objectives of designing the development "carefully" and minimising landscape harm are met since the OLEMS itself, and the OLMP and Principles it contains, are based upon these NPS policies. The OLEMS also responds to and complies with local policies which may be important and relevant to the decision, including Suffolk Coastal District Council (SCDC) Development Plan policies.





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
			according to which is beneficial to the Applicants rather than identifying which has the least landscape and visual impact.	
			Paragraph 76 lists a number of comments which 'were provided by the OLMP technical working group and LVIA ETG during consultations.' The status of these 'comments' is unclear. For example, they include 'The levels across the site need to be fully understood in order to understand the effectiveness of planting proposals as screening.' It has become clear in the course of the examination that the Applicants do not fully understand the levels across the site and are not expecting to understand them until post consent.	
2.10.3	SASES	Access road The ExAs note the responses to ExQ1.10.21 [REP1-115] concerning the design of the proposed substation access road and note the reduction in width of road to 7m. While AIL deliveries may be required during operation in the "unlikely event of a replacement transformer being required", does this mean that such an access road can be sympathetically designed to reduce visual impacts? For instance, given that AIL deliveries will be primarily required during construction, could an alternative material be used for the roads such as Grasscrete (or similar)?	The use of grasscrete is an interesting suggestion, and further the road should be reduced in width to that of a single light commercial vehicle of the type used to carry out maintenance, the proposed purpose of this road, save for the delivery of 4 AlLs. The road would only need to be temporarily widened for the AlL deliveries. Minimising the width of this road would reduce the land take, have some effect on surface water flood risk and landscape damage. The size of the entrance to this road from the B1121 could also be reduced. It would also assist in preventing its use as a construction access for expansion of the National Grid infrastructure for subsequent projects.	used on the East Anglia ONE project which is 6m in width.





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.10.6	NGET	Proposed National Grid Substation In its response to requests for additional information from ISHs2, National Grid Electricity. Transmission (NGET) [REP3-111] explained the issues around the decision to select either Gas of Air Insulation Systems (GIS/AIS) for the proposed National Grid substation and expressed a preference for AIS. However, a GIS approach requires significantly less land, although building structures for GIS are higher than for AIS. Provide a visual representation of a National Grid GIS substation from Viewpoint 5 at years 1 and 15 of operation to enable the visual effects of this alternative to be assessed and, given the character of the landscape, comment upon the merits and demerits of both GIS and AIS technology from both visual and masterplar perspectives and consider whether, a commitment should be made to one or other technical solution during the Examination, to enable the selected solution to be secured in the dDCO. If this is not possible, explain why and how the resulting uncertainty can be addressed.	NGET's current preference is to pursue AIS technology for the NGET substation as the AIS technology is easier to operate, maintain and repair and as such has lower operational costs which is important in meeting its s.9 duties. The GIS technology contains Sulphur Hexafluoride (SF6) which has the equivalent impact of ten times the carbon equivalent of AIS technology. NGET's current policy is to reduce its greenhouse gas emissions by 80% in advance of the 2030 target set by the UK government. Where appropriate, NGET has pledged not to carry out procurement of any 275kV or 400kV gas insulated switchgear containing SF6 (excluding circuit-breakers) from 2024. However, NGET recognises that GIS technologies are evolving and there may be potential options for greener GIS in the future. As such, NGET is keeping the GIS option open to allow for its use in the future if such technologies become available.	
2.10.7	ESC	Proposed sealing-end compounds [REP4-036] EA1N Landscape and Visual Impact Assessment Addendum - Appendix 5 - Viewpoin 5 PRoW near Moor Farm (Figure 29.17 Update) shows at year 15 that the western most sealing end compound, in particular, is clearly visible from the viewpoint despite the additional planting described in paragraphs 45, 100 and 110 of the OLEMS [REP3-030] to provide additional screening. Is the additional planting successful in providing additional screening and, if not, are there further measures that can be taken to more adequately screen the sealing end compounds?	post planting. The latest landscape planting plan indicates that this planting is proposed as edge woodland mix. We suggest that consideration should be given by the Applicants to changing the planting mix to include taller growing species, unless there are technical restrictions that prevent this being an option.	most sealing end compound could be changed to include taller growing species (W1 or W2 woodland) to provide further screening of the western cable sealing end compound, subject to the final design of the cable sealing end compounds and detailed consideration of the potential
	SASES	Proposed sealing-end compounds [REP4-036] EA1N Landscape and Visual Impact Assessment Addendum - Appendix 5 - Viewpoin 5 PRoW near Moor Farm (Figure 29.17 Update) shows at year 15 that the western most sealing end compound, in particular, is clearly visible from the viewpoint despite the additional planting described in paragraphs 45, 100 and 110 of the OLEMS [REP3-030] to provide additional screening.	agricultural setting. Visible from Vp 5 is the highest item of equipment within the cable sealing end compounds, the overhead line gantry at 16m above finished ground level.(ES Project description paragraph 517). There has been no reduction in this height. There is no mention of the sealing end overhead line gantry in Table 4.2 of the	finished ground level of the proposed sealing end compounds within the updated Substations Design Principles Statement to be submitted at Deadline 8 The Applicant notes that the planting visible at Year 15 next to the sealing end with circuit breaker compound was proposed as W2 native edge woodland consisting of smaller native trees and shrubs, assumed to have heights between 2-5m. The scale of the visible infrastructure behind this planting should therefore be considered in this





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
		Is the additional planting successful in providing additional screening and, if not, are there further measures that can be taken to more adequately screen the sealing end compounds?	structures in comparison. It would be helpful if all the heights of all the pieces of equipment and the AOD heights could be listed in the Substations Design Principles Statement lists showing where reductions have been made. See also SASES' post ISH9 submission in respect of Requirement 12. The sealing end with circuit breaker compound is about 250m from Vp 5. The two other sealing end compounds are both within 500m The additional pylon is also located close to the sealing end with circuit breaker compound and within approximately 250m of Vp 5. The relocated pylon is located closer to the Vp 5 than the existing pylons. Behind these substantial structures, equipment within the National Grid substation and the western substation is visible. The range, the scale and the extent of the equipment is evident due to its proximity to Vp 5. It is made more evident in the photomontage because there is a comparison with the mitigation planting. Even shown at the highly optimistic heights used by the Appellants' it is dwarfed by the scale and height of the equipment. This is how the equipment will appear in reality. It will dwarf the human scale features and characteristics of the landscape. It is very noticeable when comparing the existing images with the photomontages how the pylons have become more dominant from this location. This is partly due to the fact that they are now closer to Vp; 5 but also because they are now viewed within an industrial complex. Previously they were located within a rural agricultural landscape which could be seen to flow beneath them. From this viewpoint 5 pylons are now seen set within and connected by a substation landscape. The additional planting is not successful in providing additional screening but there are no further measures that could be taken to more adequately screen the sealing end compounds without causing other harm. Elsewhere within the scheme views of this scale have been 'mitigated' by woodland planting that has obscured views by enclosing the viewpoint (e.g. Vp 1). SAS	further screening of this cable sealing end compound, such as W1 or W2 woodland species mixes, subject to the final design of the cable sealing end compounds and detailed consideration of the potential constraints of planting taller tree species near to the overhead line/sealing end compounds to be undertaken as part of the LMP. As described in its LVIA Addendum (REP4-031) submitted at Deadline 4, in the Year 15 view from Viewpoint 5, proposed woodland planting to the south of Little Moor Farm will provide effective screening of the eastern substation and the eastern parts of the National Grid substation by Year 15 of operation. Layered screening of intervening proposed hedgerow trees will also further break up the view of the National Grid substation and the western substation, particularly during the summer months when the trees are in leaf. Further screening of the lower parts of the larger cable sealing end compound is provided by woodland planting, which as noted anove, could be increased with the implementation of taller W1 or W2 woodland species mixes.



4 th March 2021	+" March 2021					
2.10.9	SASES	Landscaping – Growth rates East Suffolk Council (REP4-0S) maintain that growth rates for proposed planting remains coptimistic, considering that they may be achievable for 15 consistently severally planting expensions of the consecutive growing years, but that is highly unlikely to occur. The Suffolk researchanged growth rates is highly unlikely to occur. The Suffolk researchanged growth rates is highly unlikely to occur. The Suffolk researchanged growth rates is highly unlikely to occur. The Suffolk researchanged growth rates is highly unlikely to occur. The Suffolk researchanged growth rates in dealth of the Suffolk of the Suffolk (ISS) and the Suffolk of Suffolk (ISS) and the Suff				





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.10.10	SASES	Landscape – replacement of failed planting It is noted that the Applicants commit to the replacement of failed planting at the onshore substation locations for a period of ten years. Given that the provided photomontages provide assessments of the effect of landscaping at 15 years, do you consider ten years to be long enough for this provision?	requires continuous maintenance/management.	No further comment.
2.10.12	SASES	Landscaping and visual impacts SASES note that the rearrangement of elements within substations can reduce the visual impact of development [REP5-096] but note that as this not controlled within the DCO that any improvement as a result of the rearrangement of equipment cannot be relied on. a) Do you agree that the rearrangement of elements within substations can have a beneficial effect on the visual impact of the proposals? If not, why not? b) How could such matters be controlled and	and cable sealing ends could be specified.	The Applicants have included the maximum height AOD of building and external equiptment within the Substations Design Principles Statement (REP4-029). This is sufficient for undertaking an impact assessment of the substation infrastructure based on the Rochdale Envelope approach based on <i>Chapter 5 EIA Methodology</i> .
2.10.15	East Suffolk Council	Substations Lighting at Night When inspecting the proposed transmission connections site at night, the ExA's observed a dark area, with only limited numbers of artificial light sources visible. At Deadline 5 in response to discussion at ISHs6 East Suffolk Council indicated that it was satisfied that draft Requirements 25(1) and (2) secure the submission, agreement and implementation of an operational artificial light emissions management plan and that draft Requirements 25(3) and (4)	a) The Applicants have confirmed within their REP5-028 (paragraph 75) that at night the substations lighting will be switched off as they will be unmanned, and lighting will only be utilised during period where work is carried out. ESC is satisfied the draft DCOs through Requirement 25 secure the submission and agreement by ESC of Operational Artificial Light Emissions Management Plans for the substations and ensure the appropriate control of light emissions from the substation	No further comment.
		secured the submission, agreement and implementation of an operational artificial light emissions management plan in relation to the National Grid substation that are broadly satisfactory in terms of minimising operational light pollution. a) Is that position supported by other Interested Parties or are any further measures warranted? b) Are any further measures warranted to controconstruction artificial light emissions at night?	b) Requirement 22 of the draft DCOs secures the Code of Construction Practice which will include an artificial light emissions plan for the construction phase, this will include lighting at night. The OCoCP (REP3-022) provides the Council with sufficient confidence that the lighting in the final plan will be designed to minimise nuisance and impact on residential and ecological receptors. The final CoCP including artificial light	
	SASES	Substations Lighting at Night When inspecting the proposed transmission connections site at night, the ExA's observed a dark area, with only limited numbers of artificial light sources visible.	SASES has previously expressed a concern that the operational	No further comment.





Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
	At Deadline 5 in response to discussion at ISHs6, East Suffolk Council indicated that it was satisfied that draft Requirements 25(1) and (2) secure the submission, agreement and implementation of an operational artificial light emissions management plan and that draft Requirements 25(3) and (4) secured the submission, agreement and implementation of an operational artificial light emissions management plan in relation to the National Grid substation that are broadly satisfactory in terms of minimising operational light pollution. a) Is that position supported by other Interested Parties or are any further measures warranted? b) Are any further measures warranted to control construction artificial light emissions at night?	part of the design of the substations and cable sealing ends. It seems out of sequence to agree a light emissions management plan for works numbers 30, 41 and 38 after the lighting system has been designed and constructed. It needs to be clarified the other than works numbers 30, 41 and 38, no other part of the authorised development onshore will require any exterior lighting. The Applicants' responses to hearing action points in relation to ISH4 (number 8) raise a number of concerns. The Applicants use words such as "normally" in terms of lighting during hours of darkness. What does "normally" mean? There is already an exception in respect of repair/maintenance. The Applicants also refer to lighting being "manually controlled". Does that mean that lighting will "normally" be switched off at night? It refers to car park lighting possibly being motion sensitive. As no one works at the substation site presumably there will be very limited parking. Why does there need to be any motion controlled lighting? The risk at Friston is that wildlife will trigger the lighting. There are differences between the Applicants' substations' lighting and the National Grid infrastructure. In particular the National Grid substation refers to perimeter lighting not being left on inadvertently during the day. The issue here is the lighting not being left on inadvertently during hours of darkness. It might help if there is a simple outline lighting management plan to clarify these issues. (b) This question directly links to issues around the extent of working hours. During autumn, winter and spring, 7 am to 7 pm working hours will require lighting either at the beginning or the end of the day or both depending upon the exact time of year. It is another reason why 24 hour working should be minimised. The extent of the resulting light pollution can be reduced by reducing working hours. It also highlights the longer terms impacts which will arise if the projects are built sequentially rather than concurrently.	



2.6 Socio-Economic Effects

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.17 Socio Econ	omic Effets			
2.17.4	Suffolk Coast DMO	DMO 'The Energy Coast' Report 2019 The Applicants [REP5-029] describe the process of arriving at a figure of £24m cost to the tourism industry caused by the projects and Sizewell C within your report as 'fundamentally flawed', due to various reasons including evidence of changes to future behaviour and other methodological reasons. a) Reply to the Applicant's critique of your Report. b) Provide any comments you wish to make on the Sizewell C tourism perception study referred to by the Applicants.	The process of arriving at the estimated figure was structured to align with accepted approaches to calculating economic impact in the region i.e. independently for day visits and overnight stays. The survey addressed the responses of a cross-section of audiences currently and potentially visiting the Suffolk Coast. Each respondent had their own level of understanding and familiarity with the area and the planned developments, independent of the survey construct. It was important to view reactions to developments through respondents own personal lens. Had the study adopted more of the 'wisdom of crowds' type approach, and asked respondents to consider the reaction in others, and responses came back equally negative, the findings would have rightly been questioned for not deploying accepted common practise in asking about that individual's personal reaction. Sizewell C's Suffolk Coast Visitor Survey would have had the option to adopt more of a 'wisdom of crowds' type approach if they were particularly concerned about respondents wildly overstating how they would react, but they chose not to. The stimuli used in The Energy Coast Report 2019 replicated those used in the Applicant's Public Consultation 4 documents. The Applicants produced a fly through video towards the end of this consultation period which The Suffolk Coast DMO did not have access to in time to include in The Energy Coast 2019 survey construct. The survey states very clearly and consistently throughout that it is dealing with the onshore infrastructure not the offshore elements of the Projects.	The Applicants have no further comments on the survey approach In terms of stimuli used, the Applicants highlight that whilst the two pieces of Project information used* were from the Applicants materials they were provided out of context from how these were used by the Applicants and do not provide, on their own, adequate information about the Projects. *The stimuli were 1) a not-to-scale diagram of the constituent infrastructure of the project and 2) a map showing the Indicative Onshore Development Area which has no indication of the scale of works proposed in the area, no indication of duration etc.
2.17.8	East Suffolk Council	Tourism Fund East Suffolk Council make reference [REP5-046] to a 'Tourism Fund' which is being discussed with the Applicants which could be utilised to support marketing campaigns to promote the area during construction. Provide an update to this Fund, including details of amounts, utilisation and how such a fund will be secured if agreed. If this is to be secured in an Agreement or Obligation or supported by Memoranda of Understanding (MoUs), please refer to it in your relevant responses to the dDCOs Commentaries.	The Applicants have agreed to contribute £150,000 to support the promotion and marketing of the East Suffolk area as a tourist destination during the construction phases of the projects. The fund will be spent in consultation with the Suffolk Coast Destination Management Organisation, of which ESC is a key partner. The intention is to utilise the fund over a three year period to fund specific initiatives and campaigns designed to promote East Suffolk as a tourist destination. The mechanism through which the fund is to be secured is still being discussed with the Applicants.	No further comment.





2.7 Transportation and Traffic

ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.18 Transportat	ion and Traffic			
2.18.3	SSC	A12/A1094 junction at Friday Street Following the Applicants' submission of a Traffic and Transport Clarification Note [REP4-027], the ExAs note the Applicants' agreement with Suffolk County Council and East Suffolk Council to introduce a traffic signal scheme, and that a commitment will be included in the outline Construction Traffic Management Plan [REP5-028]. a) Please give the current position in respect of the Section 278 agreement with Suffolk County Council and East Suffolk Council.		





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.18.4	SSC	Following the Applicants' submission of a Traffic and Transport Clarification Note [REP4-027], the ExAs note the Applicants' agreement with Suffolk County Council and East Suffolk Council to introduce a traffic signal scheme, and that a commitment will be included in the outline Construction Traffic Management Plan [REP5-028]. a) Please give the current position in respect of the details of the proposed scheme; b) Will the Applicants be monitoring traffic speeds and behaviour before commencement of construction and installation of these works, and also continuously after they are complete and in use, so as to be able to evaluate any benefits? and c) Depending on whether and, if so when the Sizewell C project proceeds, what would be the advantages and disadvantages of leaving the signals in place until the Sizewell C project replaces the existing junction with a new roundabout as part of the new bypass?	As part of the s278 agreement the Applicant will be required to undertake road safety audits during design and post completion. These will be reviewed by SCC.	b) The Outline Construction Traffic Managment Plan (OCTMP) Section 3.3.1 (REP6-048) secures the Applicants' commitment to independent road safety audits as follows: The Applicant will comply with the Road Safety Audit (RSA) process (as defined in the Design Manual for Roads and Bridges GG 119, Highways England, January 2020) for all off site highway works. The RSA process comprises of a systematic process for the independent review of highway schemes. The purpose of the RSA process is to minimise the future occurrences and severity of collisions once a scheme has been built. The Applicant will apply the following RSA stages: • The technical approval documentation will include a combined Stage 1&2 Road Safety AuditRSA (detailed design) and designer's response. This stage will seek to identify and eliminate issues prior to the commencement of construction; • A Stage 3 RSA (completion of construction) will be undertaken prior to, or just after opening and identify any issues requiring remedial works; and • Stage 4 RSA (post opening monitoring) will be undertaken 12 months after opening and comprise of a review of the collision records (pre and post opening) to understand if there are emerging issues that could warrant intervention. The RSA process will be augmeneted by quarterly monitroing reports as set out in the OCTMP, Section 4 (REP6-048).





ExA. Question Ref.	Question addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
2.18.8	SSC	Abnormal Indivisible Loads (AIL)	a)	No further comment.
		We note the contents of the Applicants' Abnormal Indivisible Load Access to the Proposed East Anglia TWO and Proposed East Anglia ONE North Offshore Windfarm Substation [APP-529], outline Port Construction Traffic and Management and Travel Plan submitted at Deadline 3 [REP3-047] and Submission of Oral Case at ISH4 [REP5-028]. Please confirm that: a) the A14 and A12 between Felixstowe and Lowestoft, and the B1122 from Yoxford to Lover's Lane are currently designated as heavy load routes and used by AIL; b) who is currently using these routes and how often; and c) that these routes will continue to be available for use on these projects, during construction, operation and decommissioning.	The route from Belvedere wharf (Lowestoft) to Sizewell via the A12 and B1122 is a DfT preferred heavy load route (HR100). There is corresponding route from Felixstowe to Sizewell or Friston. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/360533/High_and_Heavy_Load_Grids_Map_for_Abnormal_Loads.pdf	
2.18.14	SSC	·	a) The LHA would have reservations if HGV traffic were routed through Yoxford, Leiston and Knodishall as this would require them to pass through significantly larger residential areas than using the A1094	No further comment.
2.18.18	Suffolk County Council	Local issues and effects – A12 at Marlesford Bridge With reference to ExQ2.18.17 above, is the highway authority content that a worst-	The LHA has not been provided with any details of works proposed for Marlesford Bridge other than a reassurance these are not likely to require a full reconstruction. Therefore, the LHA cannot say whether a worst case assessment has been made.	No further comment.

Applicants' Comments on Responses to ExA WQ2 4th March 2021



ExA. Question Question Ref. addressed to	ExA. Question	Interested Parties' Response at Deadline 6	Applicant's Comments at Deadline 7
	case assessment of impact has beer provided in relation to this dimension o the proposed developments?		