East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments on SASES' Deadline 1 Submissions

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

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Table of Contents

Glossary of Acronyms

AEoI	Adverse Effect on Integrity
AIS	Air Insultaed Swithgear
ALC	Agricultural Land Classification
AONB	Area of Outstanding Natural Beauty
BBPP	Breeding Bird Protection Plan
BCT	Bats Conservation Trust
BEIS	Department for Business, Energy & Industrial Strategy
BMV	Best and Most Versatile
CCS	Construction Consolidation Site
CION	Connection and Infrastructure Options Note
CfD	Contract for Difference
CIA	Cumulative Impact Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
CoCP	Code of Construction Practice
DCO	Development Consent Order
DMO	Destination Mangement Organisation
DLL	District Level Licensing
EA1N	East Anglia ONE North
EA2	East Anglia TWO
EA3	East Anglia THREE
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
ES	Environmental Statement
ESC	East Suffolk Council
ETG	Expert Topic Group
ExA	Examining Authority
FRA	Flood Risk Assessment
FTE	Full Time Equivelent
GIS	Gas Insulated Switchgear
GPA	Good Practice Advice
HDD	Horizontal Directional Drill
HE	Historic England
HGV	Heavy Goods Vehicle
HPI	Habitats of Principal Importance
kV	Kilovolts
LLFA	Lead Local Flood Authority
LMP	Landscape Management Plan
LVIA	Landscape and Visual Impact Assessment
NALEP	New Anglia Local Enterprise Partnership
NE	Natural England
NGET	National Grid Electricity Transmission
NPPF	National Planning Policy Framework
NPS	National Policy Statement
OLEMS	Outline Landscape and Ecological Management Strategy
OLMP	Outline Landscape Management Plan
O&M	Operations and Maintenance
PEIR	Preliminary Environmental Information Report
PIDs	Public Information Days
PRoW	Public Rights of Way
RAG	Red Amber Green

SASES	Substation Action Save East Suffolk
SCC	Suffolk County Council
SCCAS	Suffolk County Council Archaeology Service
SoCG	Statement of Common Ground
SPA	Special Protected Area
SPR	ScottishPower Renewables
SPS	Suffolk Preservation Society
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage System
SWT	Suffolk Wildlife Trust
SZC	Sizewell C
UK	United Kingdom
WR	Written Representation
WSI	Written Scheme of Investigation

Glossary of Terminology

Applicants	East Anglia TWO Limited / East Anglia ONE North Limited
Cable sealing end compound	A compound which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Cable sealing end (with circuit breaker) compound	A compound (which includes a circuit breaker) which allows the safe transition of cables between the overhead lines and underground cables which connect to the National Grid substation.
Construction consolidation sites	Compounds associated with the onshore works which may include elements such as hard standings, lay down and storage areas for construction materials and equipment, areas for vehicular parking, welfare facilities, wheel washing facilities, workshop facilities and temporary fencing or other means of enclosure.
Construction operation and maintenance platform	A fixed offshore structure required for construction, operation, and maintenance personnel and activities.
Development area	The area comprising the onshore development area and the offshore development area (described as the 'order limits' within the Development Consent Order).
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive, as defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017 and regulation 18 of the Conservation of Offshore Marine Habitats and Species Regulations 2017. These include candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas.
Horizontal directional drilling (HDD)	A method of cable installation where the cable is drilled beneath a feature without the need for trenching.
Jointing bay	Underground structures constructed at intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Landfall	The area (from Mean Low Water Springs) where the offshore export cables would make contact with land, and connect to the onshore cables.
National electricity grid	The high voltage electricity transmission network in England and Wales owned and maintained by National Grid Electricity Transmission plc

National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia TWO / East Anglia ONE North project Development Consent Order but will be National Grid owned assets.
National Grid overhead line realignment works	Works required to upgrade the existing electricity pylons and overhead lines (including cable sealing end compounds and cable sealing end (with circuit breaker) compound) to transport electricity from the National Grid substation to the national electricity grid.
National Grid overhead line realignment works area	The proposed area for National Grid overhead line realignment works.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia TWO / East Anglia ONE North project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia TWO / East Anglia ONE North project Development Consent Order.
National Grid substation location	The proposed location of the National Grid substation.
Onshore cable corridor	The corridor within which the onshore cable route will be located.
Onshore cable route	This is the construction swathe within the onshore cable corridor which would contain onshore cables as well as temporary ground required for construction which includes cable trenches, haul road and spoil storage areas.
Onshore cables	The cables which would bring electricity from landfall to the onshore substation. The onshore cable is comprised of up to six power cables (which may be laid directly within a trench, or laid in cable ducts or protective covers), up to two fibre optic cables and up to two distributed temperature sensing cables.
Onshore development area	The area in which the landfall, onshore cable corridor, onshore substation, landscaping and ecological mitigation areas, temporary construction facilities (such as access roads and construction consolidation sites), and the National Grid Infrastructure will be located.
Onshore infrastructure	The combined name for all of the onshore infrastructure associated with the proposed East Anglia TWO / East Anglia ONE North project from landfall to the connection to the national electricity grid.
Onshore preparation works	Activities to be undertaken prior to formal commencement of onshore construction such as pre–planting of landscaping works, archaeological investigations, environmental and engineering surveys, diversion and laying of services, and highway alterations.
Onshore substation	The East Anglia TWO / East Anglia ONE North substation and all of the electrical equipment within the onshore substation and connecting to the National Grid infrastructure.
Onshore substation location	The proposed location of the onshore substation for the proposed East Anglia TWO / East Anglia ONE North project.
Transition bay	Underground structures at the landfall that house the joints between the offshore export cables and the onshore cables.

1 Introduction

1. The Applicants' comments on Written Representations (WR) received from Substation Action Save East Suffolk (SASES) for the East Anglia ONE North project and the East Anglia TWO project ('the Projects') have been separated into two Volumes.

2. This Volume (Volume 1) presents the Applicants' comments on WRs received from SASES for the following topics and has been submitted at Deadline 3:

   - Site Selection (EN10078-002812-DL1);
   - Cumulative Impact (EN10078-002810-DL1);
   - Flood Risk (EN10078-002821-DL1);
   - Cultural Heritage (EN10078-002821-DL1);
   - Land Use (EN10078-002810-DL1);
   - Substation Design and Rochdale Envelope (EN10078-002545-DL1);
   - Footpaths (EN10078-002544-DL1);
   - Human Health (EN10078-002543-DL1);
   - Ecology (EN10078-002540-DL1);
   - Light Pollution (EN10078-002541-DL1);
   - Tourism and Socio-Economics (EN10078-002850-DL1);
   - Construction – Substation Site (EN10078-002849-DL1); and
   - Construction – Onshore Cable Route (EN10078-002839-DL1);

3. The Applicants' comments on these WRs have been provided in ***section 2*** below.

4. It should be noted that the oral submissions made during the Hearings by SASES reflected the submissions made within these Written Representations.

5. Some of the documents referred to in the Applicants' responses are currently being updated and will be submitted later in the Examination process. This has been specified as appropriate in the Applicants' responses.

6. Volume 2 will be submitted by the Applicants at Deadline 4 and will respond to SASES' WRs on:

   - Traffic and Transport;
   - Development Consent Order;
   - Safety;

- Noise; and
- Landscape and Visual.

7. This document is applicable to both the East Anglia ONE North and East Anglia TWO applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's (ExA) procedural decisions on document management of 23rd December 2019. Whilst for completeness of the record this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it again for the other project.

2 Comments on SASES' Written Representations

2.1 Site Selection

ID	Written Representation	Applicants' Comments
01	1. The Applicant's site selection process is fundamentally flawed and has resulted in a proposed grid connection at Friston which causes adverse effects as reported elsewhere in Written Representations.	The Applicants' site selection process did not result in the proposed grid connection at Friston. This was a result of the Connection and Infrastructure Options Note (CION) process (see row 04 of this table below). The Applicants have followed NPS EN-1, NPS EN-3, NPS EN-5, the Electricity Act 1989 and National Grid's Guidelines on Substation Siting and Design (Horlock Rules) with the following aims: • Onshore substation to be positioned as close to the existing National Grid overhead lines as possible to reduce the requirement for cabling; and • Onshore substation and National Grid substation to be positioned to deliver an efficient and economic system. Paragraph 2.6.34 of EN-3 makes it clear that Applicants must work within the regulatory regime for offshore transmission networks established by Ofgem. The Applicants have done this and have gone through the appropriate processes for the siting of the grid connection in line with the regulatory framework. For site selection, the Applicants engaged in discussions regarding the onshore and National Grid substation site(s) via meetings, site visits and workshops with a Site Selection Expert Topic Group (ETG) from July 2017. These meetings included the monthly project management Local

ID	Written Representation	Applicants' Comments
		Planning Authority meetings; and at the Suffolk Energy Projects Working Together meetings. The Site Selection ETG comprised Suffolk County Council (SCC), Suffolk Coastal and Waveney District Council (now East Suffolk Council), Natural England (NE), Historic England, the Area of Outstanding Natural Beauty (AONB) Partnership, the Environment Agency (EA) and National Grid Electricity Transmission. The Site Selection ETG met on the dates as outlined in ***Table 4.2 of Chapter 4 Site Selection and Assessment of Alternatives*** (APP-.052). The ETG consultation ensured that the site selection process accounted for a wide range of expert, independent advice and was robust. The process was not developed and undertaken solely by the Applicants. It was iterative, and topics, scoring and weighting were agreed through the ETG (see ***Appendix 4.2 -Red Amber Green (RAG) Assessment for Onshore Substations Site Selection in the Sizewell Area*** (APP-443)). It should be noted that NE provided the following comment on the site selection process (see ***Appendix 4.1 - Site Selection and Assessment of Alternatives Consultation Responses*** (APP-442)): *"As Natural England has been involved in the site selection process, we currently have no further comment on this chapter currently. However, we believe that SPR has adopted a good systematic approach that has allowed for a thorough consideration of alternative options."*

02	2. The relevance of the site selection process, and the need to scrutinise it through this process, is made clear by law and policy. In terms of the law, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require consideration of the reasonable alternatives studied by the applicant (regulation 14(2)(d)). However, as a matter of general principle alternatives may be relevant where the proposed development would cause such adverse effects that alternative locations should be considered, or where there is a specific policy requirement to consider alternatives. Both apply here. The considerable adverse effects of the proposed development in the Friston area are set out in other representations. There are specific policy requirements to consider alternative locations through sequential testing for flood risk, and also through the need to avoid significant adverse noise effects, and to seek to avoid harm to heritage assets. 3. In those circumstances the Applicant's assessment falls to be scrutinised.	Alternative grid connection locations were addressed through the Connection and Infrastructure Options Note (CION) process (see row 04 of this table below). The site selection process once the connection location was established in the vicinity of Sizewell/Leiston is described in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). Within the onshore study area, seven zones were identified as potential substation sites, based on available space to accommodate the required project (***section 4.9.1.3***). Additionally, a target buffer of 250m from residential properties was applied as a proxy for minimising disturbance to residents. The seven potential substation zones were scored using a Red / Amber / Green (RAG) assessment (***Appendix 4.2*** (APP-443)) against criteria agreed with statutory consultees. These included: • Archaeology / heritage, • Ecology, • Landscape, • Hydrology and hydrogeology, • Engineering, • Community, • Landscape and visual, • Property and planning. The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in section 4.9.1.3 ***Chapter 4 Site Selection and Assessment***

		of Alternatives (APP-052) enabled the Applicants to decide which of the alternatives should be taken forward (i.e. Grove Wood, Friston (Zone 7)). A further alternative solution was investigated with the potential substation site at Broom Covert, Sizewell (Zone 8). Phase 3.5 Consultation (***section 4.9.1.6*** of ***Chapter 4 Site Selection and Assessment of Alternatives***) enabled the Applicant to engage with local communities and consultees on the opportunity to consider this alternative in parallel with proposals for a substation site at Grove Wood, Friston (Zone 7). As set out in ***section 4.9.1.6***., there are significant differences between the proposed onshore substations sites Grove Wood, Friston and Broom Covert, Sizewell, not least the presence of Broom Covert, Sizewell within the Suffolk Coast and Heaths AONB, contrary to NPS EN-1 policy. The Broom Covert, Sizewell site presented significant policy challenges toward gaining consent which outweighed the increased cost of further cabling to the Grove Wood, Friston site. It is the Applicants' position, in accordance with policies set out in NPS EN-1 and based on extensive advice and stakeholder engagement that the Grove Wood, Friston site offers the most appropriate option for the siting of onshore substations and National Grid infrastructure (***section 4.9.1.7***).

ID	Written Representation	Applicants' Comments
03	4. However, there is an additional point of considerable significance relating to National Grid proposals which form part of these applications. The DCOs seek to authorise three NSIPs: two for offshore windfarm projects, and one for National Grid infrastructure. Accordingly, the process undertaken by National Grid to make a grid connection offer in the Leiston area is also a matter which falls to be scrutinised. That process was flawed. It has subsequently constrained the Applicant's consideration of alternative sites.	Strategic grid connection decisions were addressed through the CION process (see row 04 below). The CION process has been established to ensure the regulated entities apply the regulatory requirements established through the Electricity Act and licence obligations. The full background to the Regulatory requirements are set out in the Regulatory Context Note REP2 -003. The Applicants are obliged to bring forward the grid connection proposal in accordance with this framework.
Approach to locating grid connection in the Leiston area		
04	5. The starting point for the consideration of the Applicant's assessment is the process by which the general area for a connection was identified. It is important to note here that the proposals in the DCOs include a new National Grid substation: this is not a case where National Grid have made a grid connection offer in respect of a defined location, but rather where National Grid expect the Applicant to propose a new National Grid substation and associated infrastructure.	The Applicants must work within the current regulatory framework in order to deliver the Project. The National Policy Statement (NPS) (EN-3) for Renewable Energy Infrastructure states at paragraph 2.6.34 that: "*Applicants for consent for offshore wind farms will have to work within the regulatory regime for offshore transmission networks established by Ofgem. Under the regime offshore transmission will be a licensed activity regulated by Ofgem*." The CION process is followed up by the NG ESO making a grid connection offer which identifies the works required for a connection. NGET are obliged to support the implementation of such connections. In circumstances where there are both NGET and user connection works it is common for a party to be identified to lead on the consenting of the infrastructure. Both sets of infrastructure are required to implement the connection works.
05	6. Since a National Grid NSIP comprises part of the proposed development under each DCO, the site selection process used by National Grid to identify the location of a grid connection must also be considered. If it were not, then the duties to report on alternatives would be avoided simply by the site selection process being carried out by the true developer, but the application being made by a third party[1] of a defined location, but rather where National Grid expect the Applicant to propose a new National Grid substation and associated infrastructure.	

[1] In this respect it is noted that the Funding Statement explains that the DCOs seek land and rights on behalf of National Grid to enable it to construct and operate the new infrastructure.

ID	Written Representation	Applicants' Comments
06	7. National Grid is under specific statutory duties in respect of its operation of the grid. Section 3A of the Electricity Act 1989 sets the "principal objective and general duties" of the Secretary of State and the regulator. One of the general duties it to promote efficiency and economy on the part of licence holders, and in carrying out those functions regard must be had to the effect on the environment of activities connected with the transmission and distribution of electricity. These duties are reflected in National Grid's obligations as the licence holder for the electricity transmission network.	The Applicants have set out the full context for the Principal objectives in section 2 of the ***Regulatory Context Note*** (Rep2-003). Paragraph 2.2.7 of EN -5 references a duty to publish a general statement stating how the licence holder proposes to perform their duties not an explanation of how they have performed them. The Applicants also refer to ***section 1.4***, agenda item 16 of the ***Applicants' Responses to Hearings Action Points*** (ExA.HA.D3.V1) submitted at Deadline 3.
07	8. Section 9 of the Electricity Act 1989 imposes general duties on licence holders including to develop and maintain a "co-ordinated" system of transmission as well as an efficient and economical system. Section 38 applies Schedule 9 to the Act which imposes duties in respect of amenity and other matters. In particular, in formulating proposal the licence holder must for example have regard to the desirability of preserving buildings of historic interest and do what reasonably can be done to mitigate the effects of the proposals. These duties are expressly referred to in EN-5 (paragraph 2.2.6).	
08	9. The licence holder is also required to explain how these duties have been discharged (see EN-5 paragraph 2.2.7). National Grid must demonstrate that it has met its commitments in respect of these duties with respect of the decisions on the siting of its infrastructure.	
09	10. National Grid establishes grid connection offers through the Connection and Infrastructure Options Note Process[2] ("CION"). Regrettably National Grid's approach to this process is opaque, despite the fact that it may significantly influence the form of energy projects	***Section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) provides an overview of the CION process in respect of the grid connection location. In 2010, Bramford was the most economic and efficient connection point for the East Anglia ONE, East

[2] https://www.nationalgrideso.com/document/45791/download

ID	Written Representation	Applicants' Comments
	through identifying a limited list of connection options. The public explanation of the process by which a connection offer was made in the Leiston area is set out in a note dated 28 June 2018[3].	Anglia TWO and East Anglia THREE projects at that time. In 2016, SPR identified the redefined East Anglia TWO and East Anglia ONE North projects as the next projects to be brought forward for development consent. Following a design review of the East Anglia offshore projects (including the cable technology to be used to make the East Anglia ONE grid connection), it is only possible to accommodate the grid connections for East Anglia ONE and East Anglia THREE within the consented cable corridor. Any further connection at Bramford would require new cable routes to be developed and constructed. Bramford is 37km inland. A connection in the Leiston area is close to Sizewell and the coast, avoiding a longer cable route penetrating further inland through Suffolk to Bramford or elsewhere on the transmission network. A short cable route means the interaction between the project and other parties, such as crossings, protected areas and settlements, can be minimised. SPR engaged with National Grid in early 2017 to determine connection options for the Projects based on contracted background at that time and reflecting the projects' timescales and reduced capacities. National Grid advised that due to the changing contracted background, connection capacity could be available in the Sizewell / Leiston area. The CION process was subsequently triggered and concluded that the most economic and efficient connections for the Projects, while considering environmental and programme implications, would be into the circuits in or around Leiston.
10	11. The first point to note is that the CION process for these projects considered alternative locations for connection, including at Bramford. The latter was rejected on the basis that a new cable corridor would be required. There are a number of important points to be made about Bramford: a. Bramford is an existing large substation site; b. Bramford was originally identified as the connection location for all of the EA windfarms (see ES Ch 4 para 49). The EA ONE DCO provided for a cable corridor which would accommodate a number of other cables to accommodate later phases of the EA projects. However, the project was altered to accommodate only EA ONE and EA THREE OFWs. Whilst a new cables would have to be laid, there is no explanation of any impediment to doing so (the route having been previously consented); c. Scottish Power Renewables and National Grid have substantial landholdings at Bramford which could accommodate new infrastructure without the need for compulsory purchase.	
11	12. The Applicant has provided very little information about the CION process and the options considered in it. Table 4.3 in Chapter 4 of the ES does not appear to provide any justification for the selection of the Leiston area as opposed to Bramford. For example, the Bramford option could	The onshore cable route for East Anglia ONE and East Anglia THREE passes through the Suffolk Coasts and Heaths AONB for approximately 12km and crosses the Deben Estuary Special Protection Area (SPA)

[3] 3 https://www.scottishpowerrenewables.com/userfiles/file/National_Grid_COIN_Process_Connection_Assessment_Note.pdf

ID	Written Representation	Applicants' Comments
	have a cable route which "could avoid designations" and a suitable landfall has been identified. Whilst cumulative effects at Bramford are noted, it is also recorded that there are no high-level designations there and there is already notable electricity infrastructure planned for it. It is not suggested in that table that the Bramford cable route is constrained by the existing EA cables. The ES fails to explain why the proposed connection in the Leiston area is "the most economic and efficient" and what consideration was given to "environmental and programme implications". Further, in light of the statutory duties described above, the justification should address (a) the co-ordination of the grid and (b) compliance with the environmental duties imposed by Schedule 9 and the licence. None of that explanation has been offered by the Applicant or by National Grid.	twice[4]. The Bramford substation location is adjacent to a Special landscape Area[5]. Bramford is 37km inland. Although the impacts of cable routes for East Anglia ONE and East Anglia THREE were deemed acceptable (as demonstrated by consent) with few significant impacts in EIA terms, it is clear that a 37km route will be more impactful overall than an 11km route in terms of footprint, disturbance, volume of traffic etc. The CION process has carried out an evaluation of options and reached a conclusion on the most economic and efficient connection option which should be developed in the interests of the GB consumer. With regard to the co-ordination of the grid and compliance with environmental duties, the Applicants refer to ***section 1.4***, agenda item 16 of the ***Applicants' Responses to Hearings Action Points*** (ExA.HA.D3.V1) submitted at Deadline 3.
12	13. It is essential that these issues are the subject of further scrutiny in the examination process. At the very least, the Applicants have failed to demonstrate why Bramford would be less acceptable than the creation of a new grid connection point and substantial electricity infrastructure at Friston.	
13	14. Since development consent is sought for National Grid infrastructure to enable the connection to be made at Friston, the basis upon which National Grid has selected the Leiston area is a matter plainly within the scope of the examination. The selection process is not properly explained.	

[4] East Anglia THREE (2015) Plan of Statutory or Non-Statutory Sites or Features (Nature Conservation) Onshore (Key Plan 1-4) https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-000479-2.7%20(b)%20Plan%20of%20Statutory%20or%20Non-Statutory%20Sites%20or%20Features%20(Nature%20Conservation)_Onshore%20(Key%20Plan_1-4).pdf

[5] East Anglia THREE (2015) Chapter 29 Seascape Landscape and Visual Amenity Figures (Fig 29.1 - 29.4) https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-000382-6.2.29%20(a)%20Volume%202%20Chapter%2029%20Seascape%20Landscape%20and%20Visual%20Amenity%20Figures%20(Fig%2029.1%20-%2029.4).pdf

ID	Written Representation	Applicants' Comments
	Nor has National Grid explained how it has met its statutory duties in respect of the environment in making the grid connection offer. For the reasons set out above, it is no answer to say that the Applicant is not National Grid, because development consent is sought of the National Grid NSIP on its behalf.	
14	15. Consideration also needs to be given to the BEIS Offshore Transmission Network Review[6]. As noted at the Preliminary Meeting, these projects are within the scope of the review. The need to ensure a coordinated approach to transmission may fundamentally alter the way in which sites are selected. The ExA has already indicated that this matter will be considered further in the examination.	The Applicants have responded in full to this point in ***Procedural Deadline C - Submission of Oral Case – Preliminary Meeting (Part 1)*** (PDC-001). The Applicants also refer to ***section 2.5.2*** of ***Written Summary of Oral Case ISH 2*** (ExA.SN3.D3.V1) submitted at Deadline 3 regarding the BEIS offshore transmission review. In summary, the timetable for the significant reform required to establish a new regulatory and technical framework for an offshore transmission network is likely to take a number of years. The Applicants have submitted applications for development consent for the Projects in line with the regulatory regime for offshore transmission networks established by Ofgem. Changes to a coordinated approach on offshore transmission would require regulatory change to deliver it. Given the considerable time periods that would be involved in developing this, the Applicants have a legitimate expectation that the Projects will be considered within the current regulatory framework in light of paragraph 2.6.34 of NPS EN-3. The Applicants note the response of Rt. Hon. Kwasi Kwarteng MP, Minister of State for Business, Energy and Clean Growth, 1st September 2020 to SASES and SEAS[7] which supports the Applicants' position.

[6] https://www.gov.uk/government/publications/offshore-transmission-network-review
[7] https://www.suffolkenergyactionsolutions.co.uk/news/reply-from-rt-hon-kwasi-kwarteng-mp-minister-of-state-for-business-energy-and-clean-growth-1st-september-2020-to-seas-and-sases

ID	Written Representation	Applicants' Comments
		"Due to the long lead times for offshore wind projects (8-10 years) many projects connecting before 2025 are either already consented or nearing the end of the consenting process. Introducing regulatory uncertainty and changing plans for well advanced projects would increase costs for consumers and make meeting ambitious 2030 and 2050 targets even more challenging. *….* *Our intention regarding the enduring regime is to communicate the direction of travel during 2021; as you rightly state, this is a very complex issue that touches on many policy areas across several organisations. We do, however, expect that a significant portion of the work will be completed during 2021**, so that clarity can be provided for those projects connecting after 2030.**"* (Applicants' emphasis)
Applicant's assessment		
15	16. There are numerous shortcomings in the Applicant's site selection process. At the outset, it is noted that the Applicant has understated the environmental effects of the proposed development at Friston (see further Written Representations). If those effects are properly and fully assessed the conclusions in the site selection process can no longer stand.	Noted. The Applicants have responded to SASES' WRs across different topic areas within this document.
16	17. There are also conceptual issues which undermine the assessment. For example, the Applicant proceeds on the basis that the co-location of the substations with the National Grid substation is required. Once that assumption is removed, it is possible that more sites would be capable of accommodating the infrastructure.	National Grid's Guidelines on Substation Siting and Design (The Horlock Rules) have been taken into consideration during the site selection process. Those relevant to landscape and visual impact include the following: • To avoid landscape designations including National Parks and AONBs;

ID	Written Representation	Applicants' Comments
		• To protect areas of local amenity value including ancient woodland and historic hedgerows; and • To take advantage of screening provided by landform and existing features. It should be noted that the Applicants did not undertake RAG assessments for the Projects' onshore substations on a joint basis. As stated in ***Appendix 6.4*** (APP-443) paragraph 32 *"a process was undertaken to identify a preferred location in which to locate a single onshore substation so that all potential onshore substation locations could be assessed individually under the RAG scoring system"*. This same process was also followed for the National Grid substation. In addition, the guidance from the Horlock Rules and the Electricity Act 1989 resulted in the following aims for site selection: • Onshore substation(s) to be positioned as close to the existing National Grid overhead lines as possible to reduce the requirement for cabling; and • Onshore substation and National Grid substation to be positioned as close as possible to each other to deliver an efficient and economic system (colocation). The site benefits from existing natural screening provided by Grove Wood and Laurel Covert, as well as other smaller tree blocks and hedgerows surrounding the site. These landscape features provide screening principally from the east and create a wooded backdrop in views from other directions, below which the height of the onshore substation and National Grid substation will be contained and in so doing, contribute to the mitigation of landscape and visual effects (***Table***

ID	Written Representation	Applicants' Comments
		29.3 of ***Chapter 29 Landscape and Visual Impact Assessment*** (LVIA) (APP-077)). The Applicants have carefully sited the proposed onshore substations and National Grid substation in close proximity to the existing overhead lines to reduce additional cabling requirements and to minimise proliferation of infrastructure.
17	18. Detailed consideration has been given to the Applicant's "RAG" assessment in the attached appendices. In summary: a. No consideration has been given to the length of the cable route required for each potential location; b. There is no or no proper weighting to the criteria; c. There are number of technical errors in the assessments which are addressed further below.	a) The length of the cable route was originally included within the RAG assessment but was removed at the request of the Councils as the additional cost to the Applicant of the length of cable route was not considered by the councils to be a factor associated with site selection. Within the onshore area of search, cable route length is not a critical factor in the site selection process for the onshore substations. As described in ***section 3.2*** of ***Appendix 4.2 RAG Assessment for Onshore Substations Site Selection in the Sizewell Area*** (APP-443), the key development considerations captured within the RAG assessment include archaeology / heritage, ecology, landscape, hydrology and hydrogeology, engineering, community, landscape and visual, property and planning. This is reflective of the policies and requirements of EN-1, EN-3, EN-5 and National Grid's Guidelines on Substation Siting and Design (Horlock Rules). The selected onshore substation location avoids all International, National, county and local landscape designations. b) Each development consideration is given a score of Red / Amber / Green. These scores indicate the adverse or positive attributes to development respectively. The specific definition of each Red / Amber / Green category is appended in Appendix B. Each scoring criteria was

ID	Written Representation	Applicants' Comments
		presented, reviewed and agreed with the Site Selection ETG. It should be noted that if a site is awarded a Red score, this will not necessarily prevent an option being taken forward as preferred into the next stage if, overall, it performs better than others. The RAG assessment criteria presented in Appendix B of ***Appendix 4.2*** (APP-443) provides the RAG definitions for each key consideration. The method presents all the identified development considerations equally, i.e. there is no weighting of different development considerations relative to each other. Whilst any weighting is not incorporated in the RAG assessment findings, professional judgement, specific guidance and feedback through the consultation process was taken into consideration to inform decisions. As highlighted above, the Site Selection ETG agreed the methodology (including lack of weighting) through an iterative process of discussion and review, site selection was not undertaken by the Applicants alone. c) The RAG assessment did not identify the chosen onshore substation site, rather it was a tool that allowed a number of sites to be compared and the most acceptable sites identified at the time to progress to further assessment stages. The culmination of the various work streams as described in ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) ***section 4.9.1.3*** enabled the Applicants to decide that the substation zone northeast of Friston (Zone 7) as the proposed zone to be taken forward. It is not standard practice, nor is it reasonable to undertake a full EIA for each of the potential sites, detailed assessment is only undertaken once there is some certainty over project location, design etc.

ID	Written Representation	Applicants' Comments
		Comments on individual topic methodologies are covered in the respective sections of this document.
18	19. There is a further fundamental error in respect of the application of the sequential test for flood risk. The Applicant now accepts that the proposals are in a location at high risk of pluvial flooding. However that type of flooding was excluded from the site selection process and in applying the sequential test. The point is considered further below and in the Written Representation concerning Flood Risk.	The Applicants ***Flood Risk Assessment*** (FRA) (APP-496) concludes in ***section 20.9*** that part of the National Grid footprint boundary is situated over an area of medium – high risk of surface water flooding. The assessment methodology and conclusions relating to flood risk are agreed with the EA (AS-056) as part of the Statement of Common Ground (SoCG) process. Notably, it is also agreed with East Suffolk Council and SCC that flood events in the Friston area, resulting from overland flow, that occurred during late 2019 – early 2020 was a result of multiple flow paths and not a direct result of surface water runoff from land associated with the proposed site of the onshore substation or the National Grid infrastructure (see Table 13 of the SoCG) (AS-046)). Surface water (pluvial) and groundwater flood risk has been considered in the Applicants ***FRA*** and assessed in ***section 20.6.2.1*** of the ES (APP-068) for the onshore development area. The Applicants have provided additional information at the request of the Councils in order to reach further agreement. The ***SuDS Infiltration Note*** (REP2-012) was submitted at Deadline 2 and will be updated at Deadline 4. The ***Outline Operational Drainage Plan*** was submitted at Deadline 3 (ExA.AS-1.D3.V1).
Conclusion		
19	20. For the reasons set out above and in more detail in the appendices to this representation, the Applicant's approach to site selection is fundamentally flawed, and the ES is inadequate in explaining the alternatives. These are material considerations and on proper scrutiny, the selection of the Friston location cannot be justified.	The Applicants refer to their responses provided to these points above.

2.2 Cumulative Impact

ID	Written Representation	Applicants' Comments
Summary		
01	1. The Applicant's approach to cumulative impact assessment is legally deficient and contrary to established guidance in PINS Guidance Note 17. The legal duty to assess the cumulative effects of the projects together with others is in paragraph 5 of Schedule 4 to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. The importance of assessment of the cumulative effects of a proposal together with other proposals, particularly when the first project enables a subsequent project, as emphasised by the Court of Appeal in Brown v Carlisle City Council [2011] Env. L.R. 5. Paragraph 4.1.3 of EN-1 also requires the decision-maker to take account of the proposal's "its potential adverse impacts, including any long-term and cumulative adverse impacts".	The approach used for the CIA follows Planning Inspectorate Advice Note 17. Where it is helpful to do so 'Tiers' of these projects' development statuses have been defined as well as the availability of information to be used within the CIA. This approach is based on the three tier system proposed in Planning Inspectorate Advice Note 17 as summarised in the following: • Tier 1 – Projects under construction, permitted or submitted applications; • Tier 2 – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; and • Tier 3 – Projects on the Planning Inspectorate's Programme of Projects where a scoping report has not been submitted; projects identified in the relevant Development Plan (and emerging Development Plans); and projects identified in other plans and programmes (as appropriate) which set out the framework for future development consent. Tier 1 and Tier 2 projects are included in all relevant CIAs within the ES. Generally, Tier 3 projects have not been included within each CIA due to insufficient information available on which to base an assessment, in line with Advice Note 17. Following the guidance in Advice Note 17, the below projects were not considered in the CIA because at the time the Project CIAs were written there was inadequate detail upon which to base any meaningful
02	2. At paragraph 86 of Chapter 6 of the ES, the Applicant states: "86. The Applicant recognises that there is the potential for future proposed National Grid Ventures projects in the local area. The Applicant is also aware that extensions to many Round 2 offshore windfarm sites have been announced and that preparation for a further round of development (Round 4) is underway. However, at this stage, in accordance with The Planning Inspectorate Advice Note 17 there is currently insufficient information within the public domain for any of these projects to be considered within the cumulative impact assessment presented in this ES."	
03	3. On this basis, the cumulative assessment carried out by the Applicant is limited to consideration of the interaction between the components of the two DCOs, and the cumulative impacts with the Sizewell C and related	

ID	Written Representation	Applicants' Comments
	development. So far as is relevant, these matters are addressed in other Written Representations on specific topics.	assessment (with no information on, for example, the project design, and timescales): • Nautilus; • EuroLink; • Greater Gabbard Offshore Windfarm Extension (North Falls); and • Galloper Offshore Windfarm Extension Each of these projects is nationally significant and therefore will require its own EIA and as part of that process will need to undertake a cumulative assessment. Each of the above projects will therefore consider the Project in each of their respective EIAs as they progress through the planning process. The Applicants note that there are no substantive updates on the progress of North Falls or Five Estuaries since the Applications were submitted. North Falls or Five Estuaries are part of the 2017 Extension leasing round. The Applicants note that all the 2017 Extensions featured in The Crown Estate plan level HRA published in August 2019 and that Sheringham Shoal and Dudgeon Extension received a Scoping Opinion in November 2019 and are expected to proceed to section 42 consultation in April 2021 and Rampion Extension received a Scoping Opinion in August this year. The latest information[8] from the North Falls is that scoping expected early in 2021, with a DCO application is not
04	4. For the purposes of this submission, there are two main issues: a. As a matter of fact, the proposed National Grid connection hub for which development consent is sought is designed to accommodate a far greater number of grid connections than proposed through these two projects. It therefore directly enables further grid connections at Friston; b. There are known proposals for energy projects which on the evidence either will connect or are highly likely to connect via a grid connection at Friston if development consent is granted on these applications. Those proposals need to be taken into account in the cumulative impact assessment.	

[8] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010119/EN010119-Advice-00002-1-201106%20North%20Falls%20Inception%20Meeting%20Note_FINAL.pdf

ID	Written Representation	Applicants' Comments
		expected until mid-2023. Five Estuaries have not provided an indicative programme to the Planning Inspectorate at this stage[9].
National Grid infrastructure designed to accommodate further grid connections		
05	5. The first demonstrable flaw in the Applicant's assessment is that development consent is sought for National Grid infrastructure which is specified at a scale and capacity to accommodate other grid connections. The DCOs would authorise the construction of a new National Grid connection hub and related infrastructure as a separate NSIP (see Sch 1, Part 1, para 2) which will directly enable further grid connections to be made at that location.	The Applicants selected the onshore substation and National Grid substation locations to reflect the requirements of the Projects only and did not consider potential expansion of the National Grid substation. National Grid Electricity Transmission (NGET) confirmed in their response to the ***ExQ 1.6.3*** that the National Grid substation is defined as: *"a National Grid facility accommodating the generating station development proposed in these applications (the East Anglia ONE North and East Anglia TWO Offshore Wind Farms)".*
06	6. The effect of Article 33 of the draft DCO is that the land comprised in the National Grid connection hub works will become "operational land" for the purposes of the National Grid's undertaking. That will give significant latitude to National Grid to carry out further works, pursuant to permitted development rights, to accommodate other connections without the need for planning permission or development consent. That emphasises the need for proper assessment of the cumulative effects at this stage. Whilst the other projects would themselves require development consent (and thus environmental assessment), that is no answer to the need to carry out cumulative assessment now: see Brown v Carlisle, at [40].	Permitted development rights are necessary to enable the maintenance and operation of the transmission assets. These include elements of restricted further works and replacement. The extent of the rights is restricted by development that is not permitted and also by conditions. Further restrictions also potentially apply under the legislation pertaining to permitted development rights which remove permitted development rights in circumstances that these would involve EIA development. Any alterations to works constructed under the DCO would be considered as an alteration to an EIA development that had already been authorised, executed or in the process of being executed and would have to be screened.

[9] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010115/EN010115-Advice-00001-1-191128_Galloper%20Extension.%20Meeting%20note.pdf

ID	Written Representation	Applicants' Comments
Known projects likely to connect at Friston		
07	7. Contrary to the Applicant's assertion in the ES, there is considerable publicly available information in respect of projects which would be likely to connect to the grid at Friston.	The Overarching NPS for Energy (EN-1) paragraph 4.2.5 states that "*When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence)".* ***Advice note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects*** (AN17) sets out a cumulative assessment process with the stages of longlisting and shortlisting projects, information gathering and assessment. Information gathering "*requires the applicant to gather information on each of the 'other existing development and/or approved development' shortlisted at Stage 2. As part of the Stage 3 process the applicant is expected to compile detailed information, to inform the Stage 4 assessment. The information captured should include but not be limited to:* *1) Proposed design and location information;* *2) Proposed programme of construction, operation and decommissioning; and* 3) *Environmental assessments that set out baseline data and effects arising from the 'other existing development and/or approved development"*
08	8. The Nautilus Interconnector is a proposed 1.4GW interconnector between Belgium and the UK promoted by a subsidiary of National Grid Electricity Transmission plc (NGET). It has a proposed landfall between Sizewell and Thorpeness. In July 2019 NGET produced a Briefing Pack which states[12]: "In order to connect Nautilus to the national grid, discussions have been ongoing with National Grid Electricity Transmission (NGET) and the System Operator. From this, NGET have provided a Connection Agreement to use a new 400 kilovolts (kV) substation provisionally referred to as "Leiston 400kV substation". This is the same substation that Scottish Power Renewables (SPR) offshore windfarms East Anglia 1N and 2 are proposed to be linked to. NGIH, SPR and NGET are currently working on the premise that all projects will be connecting to the same substation – Leiston 400kV substation."	
09	9. The "Leiston 400kV substation" is the National Grid connection hub for which development consent is sought. The Nautilus Interconnector was the subject of a direction under s 35 Planning Act 2008 in April 2019, and is identified on the PINS website as having a likely submission date of Q2 2022. Together with Eurolink, below, Nautilus was the subject of consideration by National Grid in 2018 which identified that it would be	

[12] https://www.nationalgrid.com/document/125601/download

ID	Written Representation	Applicants' Comments
	connected to a new 400kV substation in the Sizewell to Leiston area, in express connection with the EA1N and EA2 projects[13]: ""National Grid is proposing a single new 400kV substation which, subject to consent being granted, would connect all of these new sources of generation [Nautilus, Eurolink, EA1N and EA2] to the NETS."	For the projects highlighted (i.e. Nautilus, Eurolink, North Falls, Five Estuaries, SCD1 and SCD2) little to none of this information is available. SCD1 and SCD2 were not featured in the January 2019 Network Options Assessment (NOA), were first mentioned in the January 2020 NOA[10], and within that assessment SCD2 is on hold. For Nautilus a briefing pack is available[11]. This provides an area of search map with nine potential converter station locations, four landfalls and multiple cable routes. An outline programme is provided and indicative information for the substation (footprint and height). This does not provide a sufficient basis for a cumulative assessment, for each of AN17's bullets the Applicants would be required to make assumptions regarding the project's parameters. The Applicants would be required to make the worst case assumptions across a range of offshore and onshore topics which would not be consistent or result in a coherent project (e.g. the worst case cable route may not be associated with the worst case substation location). This would not be robust and would effectively be assessing or prejudging another developer's project. In addition, as stated in the SoCG with National Grid Ventures (NGV) (REP1-062), neither the Nautilus or EuroLink projects are at a sufficient
10	10. The Eurolink Interconnector is a 1.4GW interconnector to the Netherlands. In National Grid's Interconnector Register at 8 January 2018 the project was identified with a connection site at "Leiston 400kV Substation". In December 2018 it was identified by NGET as having the same set of landfall and grid connection parameters at Nautilus[14].	
11	11. NGET has recently reclassified both Eurolink and Nautilus as "multi-purpose interconnectors that will each deliver power from multiple offshore windfarms"[15]. Both interconnectors are listed on National Grid's Interconnector Register[16].	
12	12. It is clear therefore that well in advance of the applications for development consent, the proposal to use the substation to be authorised under these DCOs for these two projects was known. Each of these interconnectors would require significant new infrastructure (converter stations) to connect the HVDC cables to the National Grid connection hub.	

[13] http://sases.org.uk/wp-content/uploads/2018/08/National-Grid-Briefing-Note-Interconenctors-Sizewell.pdf
[10] https://www.nationalgrideso.com/research-publications/network-options-assessment-noa
[11] https://www.nationalgrid.com/document/125601/download
[14] http://sases.org.uk/wp-content/uploads/2019/01/NGV-Nautilus-Eurolink-Proposals-14-12-2018.pdf
[15] https://renews.biz/63624/national-grid-builds-wind-connector-pipeline/
[16] https://www.nationalgrideso.com/connections/registers-reports-and-guidance

ID	Written Representation	Applicants' Comments
13	13. The Applicants were aware of these proposals in early 2018. In a meeting with PINS in respect of the applications, the Scottish Power is recorded as stating: "The Applicant stated that it is not engaged in master-planning energy in the area but have considered the NGV projects in their site selection. The Applicant has made commitments not to sterilise NGV's ability to develop their projects. The Applicant advised that they follow the Planning Inspectorate Advice Note 17 on cumulative impact assessment."	stage of project definition to confirm whether the National Grid substation will present a viable option for their connection to the national electricity grid. Each of these projects is nationally significant and therefore will require its own EIA and as part of that process will need to undertake a cumulative assessment. Each will therefore consider the Projects (if relevant) in each of their respective EIAs as they progress through the planning process.
14	14. In addition to these interconnector projects, offshore windfarms which may connect to the National Grid connection hub include: a. **Greater Gabbard Extension**, now North Falls OFW. An agreement for lease has been signed with the Crown Estate[17]. An application for development consent for this 504MW OFW is expected in 2023[18]. b. **Galloper Extension**. now Five Estuaries OFW. An agreement for lease has been signed with the Crown Estate[19]. The proposal is for a 300MW OFW. It is understood that a Grid Connection Offer has been made in respect of the proposal, which is featured on National Grid's Transmission Entry Capacity (TEC) Register[20]. The terms of that connection offer are not known.	
15	15. It is understood that for both of these projects the likely cable landfall will be around Sizewell. The agreements for lease confirm the strong likelihood that the projects will come forward.	

[17] https://www.sse.com/news-and-views/2020/09/sse-and-rwe-secure-crown-estate-lease-for-greater-gabbard-extension/
[18] https://www.4coffshore.com/news/rwe-and-sse-join-forces-for-greater-gabbard-extension-nid19201.html
[19] https://www.4coffshore.com/news/galloper-partners-secure-agreement-for-lease-for-extension-nid19202.html
[20] https://www.nationalgrideso.com/connections/registers-reports-and-guidance

ID	Written Representation	Applicants' Comments
16	16. There are also two domestic interconnectors proposed by NGET, **SCD 1 and SCD 2**, which are proposed to connect between Kent and a landfall around Sizewell. SCD1 is proposed to be operational by 2028[21].	
17	17. There are further National Grid projects in the vicinity of the site which have been excluded from the assessment. These include overhead line reconductoring and further prospective works to overhead lines which are required to accommodate the new generating capacity. These works should also form part of the cumulative assessment.	
18	18. Accordingly: a. It is known that two interconnectors are proposed to be connected to the grid at the National Grid connection hub which would be authorised by these DCOs; b. There are at least two offshore windfarms, and two further interconnectors, with connections in the same area, along with works to the grid transmission system to accommodate these projects; c. The National Grid connection hub is specified to be capable of accommodating some or all of these projects, in addition to EA1N and EA2.	
19	19. Further, as noted in the Substation Design and Rochdale Envelope Written Representation, the broad parameters of the proposed development may provide capacity in the site for further development in relation to these (or other) cumulative projects. The cumulative effects of these proposals must accordingly be the subject of assessment.	

[21] https://www.nationalgrideso.com/document/162356/download at p 53

ID	Written Representation	Applicants' Comments
20	20. It is not open to the Applicant to decline to assess the cumulative effects of these projects on the basis of the amount of information in the public domain. First, the projects are all easy to understand in terms of the nature of works required to enable them, because they are additional grid connections requiring connection infrastructure that can be seen elsewhere. Second, there is in fact a significant amount of information in the public domain including the likely connection dates (which are in some cases within the construction timeline of these projects). Third, relevant information which is not in the public domain is held by National Grid, which has a directed interest in these DCOs because development consent is sought on its behalf for the National Grid connection hub. Fourth, four of the six further projects (Nautlilus, Eurolink, SCD1 and SCD2) are being promoted by members of the National Grid group.	
21	**The nature of the unassessed cumulative impacts** 21. Since they have not been the subject of environmental assessment, the full nature and effect of the cumulative impacts is not known. However, in the Written Representation concerning Land Use, consideration has been given to the potential land requirements of grid connection infrastructure required for the cumulative projects. It is immediately apparent that there is the potential for very significant additional adverse environmental effects arising from those projects.	
22	22. Further, each of these projects would require a cable route between the landfall and substation location. Any assessment of cumulative effects would be required to consider the construction and operational impacts of those cable routes together with any connection infrastructure.	

ID	Written Representation	Applicants' Comments
Conclusion		
23	23. The Applicants' assessment of cumulative effects is demonstrably defective. There has been no attempt to engage with proposals which will, or are highly likely to, require a grid connection through the very infrastructure for which the development consent is now sought. That assessment is required to meet the requirements of EN-1, and to discharge the legal duty in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017	The Applicants refer to their response provided to SASES points 1-4 (Rows 01 – 04) of this table. The Applicants approach is in line with PINS guidance and it is therefore considered by the Applicants to be correct and appropriate

2.3 Flood Risk

ID	Written Representation	Applicants' Comments
Site Visit, Literature Review and Research		
01	15. Mr Clive Carpenter undertook a walkover site inspection, including photographic inventory, of: Friston Village; the upstream watershed including the proposed site location of the substations; and the downstream watershed as far as the A1094, on Tuesday 28th July 2020, in the company of two local residents.	Noted.
02	16. The walkover survey included: • An inspection of the main drainage ditch passing north-to-south through the village; • Traverses across the fields up to 1km north of the village, following the upstream drainage route north and east onto the western extent of the proposed footprint of the site; • Following the 500m buried culvert and channel south through the village; and • Tracing the open channel south 500m to a spreading/retention area and siphon under the main A-road.	
03	17. At the time of the site visit, the weather was dry and there was no flowing water in the fields, drainage ditches or water course.	
04	18. Specific attention was paid to previously unreported local topographic depressions within the proposed development footprint (see Drawing Nos. SASESFRA2010-2 and 3) which currently and self-evidently receive and store surface water runoff and field drainage; and the topography of the proposed location of the two storm water attenuation structures.	

ID	Written Representation	Applicants' Comments
05	19. In preparing a critique and review of the SPR application, in addition to the SPR environmental reports and associated documentation, national and local flood policy and planning documents were secured from Environment Agency and county council and local council websites. A list of reviewed documents is provided in Section 12.	
06	20. In addition, we have ourselves undertaken a storm water runoff routing analysis for the Friston catchment, using high resolution LiDAR data to confirm the pathways that storm water runoff will take in the watershed (see Drawing Nos. SASESFRA2010-4 and 5).	
08	21. Subsequent to the analysis being completed, a numerical hydraulic flood model for Friston Village, commissioned by Suffolk County Council (http://www.greensuffolk.org/flooding/surface-watermanagement-plans/friston-surface-water-management-plan) was made available (BMT, May 2020) to SASES, confirming the elevated flood risk in the village and the direct hydraulic connection to the proposed sub-stations footprint (see Appendix 1). An initial review of the report by local residents has revealed the model has under-estimated the flood depths actually observed (see Appendix 2) for the calibration storm event at certain locations i.e. the flood risk is understated.	The Applicants were also provided with a copy of the Friston Surface Water Management Plan, entitled Friston Surface Water Study - Technical Report, (BMT, May 2020) which has been reviewed by the Applicants and subsequently discussed with SCC as part of the Statement of Common Ground meetings. The Applicants have noted that there was a review of recent flooding events within this study including flood events in the Friston area, resulting from overland flow, that occurred during late 2019 – early 2020. The study identified that these flood events were a result of multiple flow paths and not a direct result of surface water runoff from land associated with the proposed site of the onshore substation or the National Grid infrastructure (see Agreement Statement LA-05.06 of ***Statement of Common Ground with East Suffolk Council and Suffolk County Council*** (AS-046).

ID	Written Representation	Applicants' Comments
Overview of Impacts of the Proposed Development		
09	22. The Initial Assessment of Principle Issues identified by the Planning Inspectorate (16 July 2020, Ref: EN010077) includes Flood Risk, Water Quality and Water Resources.	Noted.
10	23. An ephemeral water course passes through the middle of Friston Village (see Drawing No. SASESFRA2010-5), draining a rural catchment area (see Drawing No. SASESFRA2010-4) of approximately 3km2. Friston Village is already vulnerable to storm water inundation from this upper catchment, both as discrete flows along drainage ditches, and more dispersed flows off agricultural fields and onto the local roads (see Appendix 1 and Appendix 2). The model is reported as calibrated against the October 2019 storm event (see Appendix 2).	
11	24. The combined SPR windfarm schemes will be constructing and operating 3 new substations, kilometres of cable route, and related supporting buildings, access roads and parking areas, in this catchment area.	
12	25. The construction phase will require vegetation and soil stripping and stockpiling, excavation and landform rise (see Appendix 3 and Appendix 4), disturbing an area of > 260,000m^2 (not including cable routes) of the upper Friston catchment, increasing storm runoff and generating highly turbid water. No details are provided of this temporary works runoff water capture, storage and treatment.	The Applicants have noted that surface water drainage measures will be required during both construction and operation. Issues pertinent to construction phase drainage, including consideration of surface water runoff, will be managed through the implementation of the Code of Construction Practice (CoCP) which must accord with the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1). The CoCP will also include an Operational Drainage Management Plan and a flood management plan as part of the CoCP.
13	26. The site operational phase will introduce substantial areas (c 145,000m^2) of hardstanding including impermeable buildings, access	The Applicants have produced a Flood Risk Assessment (FRA) (***Appendix 20.3*** (APP-496)) which was carried out in accordance with

ID	Written Representation	Applicants' Comments
	roads and car parking areas (see Appendix 5), all generating increased stormwater runoff volumes and peak flows. The hardstanding areas will also cover and bury existing surface depressions (see Drawing No. SASESFRA2010-3) which currently capture, store and in all likelihood infiltrate field runoff from parts of the site footprint.	EN-1 Overarching NPS for Energy, National Planning Policy Framework (NPPF) (Ministry of Housing, Communities & Local Government, 2019), Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government, 2014), and the EA's Climate Change Allowance guidance (EA, 2016). In accordance with this guidance, the FRA considers all sources of flood risk including surface water flooding. Additionally, the existing hydrological context of Friston is discussed in the Applicants' ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) which has been submitted at Deadline 3. This includes consideration of existing drains on site and drainage off site via tributaries. The final Operational Drainage Management Plan is to be produced post-consent in accordance with the Outline Operational Drainage Management Plan submitted at Deadline 3 (ExA.AS-1.D3.V1). It will also address all operational drainage measures and confirm the final Sustainable Drainage Systems (SuDS) designs.
14	27. The substations and related infrastructure and construction corridors are located on and contribute to the overland flow routes (see Drawing Nos. SASESFRA2010-4 and 5 and Appendix 1) passing through the development site and directly into the village.	
15	28. A failure to provide adequate storm water storage, and increases in storm water runoff flows and sediment arriving in the village as a result of the proposed development, will increase flood risk due to the restricted conveyance and on-going flood risk in the village.	
16	29. The potential use of infiltration basins (whilst not yet proven to be viable) would result in significant increase in groundwater recharge and inflow to the Sand and Gravel deposit on the western edge of the site (see Drawing No. SASESFRA2010-6). This deposit ends within Friston Village (see Drawing No. SASESFRA2010-6). The use of infiltration basins will increase groundwater flow into the village and may therefore increase groundwater flooding risk within the village. This has not been assessed by the Applicant.	The Applicants are considering the use of infiltration basins at the Onshore Substations, in response to comments raised by SCC who indicated this was their preferred method of discharge for surface water from the Onshore Substations. The Applicants have submitted a ***SuDS Infiltration Note*** (REP2-012) at Deadline 2 which contains further information and will be updated at Deadline 4. The Applicants have committed to undertake appropriate infiltration testing pre-construction, which will subsequently inform the detailed drainage design.

ID	Written Representation	Applicants' Comments
Applicant's Assessment – Flood Risk Content		
17	30. The SPR Environmental Statement Chapter 20 is entitled Water Resources and Flood Risk. Appendix 20.3 is entitled Flood Risk Assessment (FRA). The FRA considers the entire project area, including the Friston Watercourse catchment area.	Noted.
18	31. The Friston Watercourse is designated a Main River from the centre of Friston Village (see Drawing No. SASESFRA2010-1), downstream of which the Environment Agency (EA) is the statutory consultee, upstream of which the Lead Local Flood Authority (LLFA) is the statutory consultee. The FRA states Suffolk County Council is the LLFA.	
19	32. The FRA documentation contains Environment Agency and DEFRA public domain flood risk products, including fluvial (river) and pluvial (storm water runoff) flood maps (see Drawings Nos. SASESFRA2010-7 and 8) and some EA flood model outputs, as well as a detailed policy analysis.	
20	33. The FRA confirms there is: no design documentation on the necessary surface water flood risk mitigation structures; no surveys completed to date on the drainage network in the vicinity of Friston Village; no surface water and drainage management plan developed; and a need for further studies, surveys and assessment to inform the design and plan.	
21	34. A RAG Site Selection Criteria assessment has been undertaken to compare environmental impacts and to identify preferred site locations. Flood risk is only considered with respect to proximity to Flood Zone 3 (see Drawing No. SASESFRA2010-7), a flood zone used to define fluvial i.e. river flood risk. There is no consideration of other flood risks i.e. pluvial (storm water runoff – see Drawing No. SASESFRA2010-8) or groundwater	The Applicants have produced an FRA (***Appendix 20.3*** (APP-496)) which was carried out in accordance with EN-1 Overarching NPS for Energy, NPPF (Ministry of Housing, Communities & Local Government, 2019), Planning Practice Guidance (PPG) for Flood Risk and Coastal Change (Ministry of Housing, Communities & Local Government, 2014), and the EA's Climate Change Allowance guidance (EA, 2016).

ID	Written Representation	Applicants' Comments
	flooding. The Friston site is identified as low flood risk based on the above criteria.	In accordance with this guidance, the FRA considers all sources of flood risk including surface water flooding (i.e. pluvial) to all elements of the Project. The Applicants are in agreement with the EA (see EA-205 of ***SoCG*** (AS-056)) and the Councils (see LA-05.03 of ***SoCG*** (AS-046)) that the FRA adequately characterises the baseline environment in terms of water resources and flood risk.
Applicant's Conclusions		
22	35. The FRA identifies no historic flooding in the footprint of the substations. It does identify historic reports of highway drainage problems in the vicinity of Friston but states these are outside of the substation footprint area.	The Applicants refer to their response provided in row 08 of this table.
23	36. The FRA identifies the substation site to be within Flood Zone 1 (i.e. land at risk of river flooding less than 1 in 1000 Years, as defined by the Environment Agency) and states this addresses the Sequential Test, which it describes as designed to locate development into areas of the lowest flood risk possible. The FRA goes onto state that the Exception Test must consider surface water and other sources of flooding within each flood zone when applying the sequential approach.	The Applicants note that within the FRA (***Appendix 20.3*** (APP-496)) the onshore substations have been sequentially located when siting them in Flood Zone 1, in accordance with the Sequential Test.
24	37. The FRA clearly identifies parts of the substation site, specifically including parts of the National Grid substation and cable sealing end compounds to be at HIGH RISK OF SURFACE WATER FLOODING (i.e. during a 1 in 30 Year event) (para. 125). Additionally, the FRA identifies parts of the access roads are likely to cross areas of HIGH RISK OF SURFACE WATER FLOODING (para. 127).	The Applicants note that within the FRA (***Appendix 20.3*** (APP-496) the substation site is partially located within areas of increased surface water flood risk. The onshore substations are not located in an area of high risk surface water flooding. The Applicants recognise that the National Grid Substation and parts of the proposed access roads are located in an area at risk of surface water flooding however the Applicants refer to ***section 20.4.3.6*** of the FRA (***Appendix 20.3*** (APP-496)). This states that flood risk from surface water to the onshore substation and National Grid

ID	Written Representation	Applicants' Comments
		infrastructure and off-site as a result of the Projects will be addressed through the development of a detailed drainage design. In ***section 20.4.3.10*** of the FRA (**Appendix 20.3** (APP-496)) the Applicants have committed to producing a surface water and drainage management plan, as secured under Requirement 22 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1), which will be agreed with the relevant planning authority and implemented to minimise the flood risk to the onshore substation, National Grid infrastructure and downstream locations including Friston. The Applicants have submitted an ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) at Deadline 3. This presents an overview of the information to be presented within the final Operational Drainage Management Plan including operational surface water and wastewater management. An update to the ***draft DCO*** (document reference 3.1) has also been made at Deadline 3 to reflect the need for submission and approval of the final Operational Drainage Management Plan.
25	38. The FRA clearly states the surface water flood risk extends downstream to Friston, where there are several reports of historical flooding (para. 127).	The Applicants contacted SCC, in their role as the LLFA, to obtain records of historic flooding incidents of relevance to the Projects and these were reported in the FRA (**Appendix 20.3** (APP-496)). The Applicants refer to their response provided in row 08 of this table regarding agreements reached with the EA and the Councils.
26	39. The FRA states a detailed drainage design will be developed to address the on-site and off-site flood risk from surface water, stating a change in surface water runoff as a result of the increase in impermeable area, which will require attenuation prior to discharge at a controlled rate agreed with the LLFA (para. 129). No details are provided in the FRA or Environmental Statement (ES), with the FRA stating further geotechnical	As discussed in row 24 of this table, an ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) and an update to the ***draft DCO*** (document reference 3.1) has been submitted at Deadline 3. The ***Outline Operational Drainage Management Plan*** commits the Applicants to

ID	Written Representation	Applicants' Comments
	and drainage surveys and studies are required to inform the surface water drainage design. The FRA states the attenuation ponds will aim to reduce peak flows by 20% compared to existing runoff rates.	limiting surface water runoff rates to the equivalent of the pre-existing greenfield (undeveloped) runoff rate.
27	40. The FRA states additional landscape features will be used to attenuate existing surface water flow routes, to reduce flood risk to Friston Village. No size, volumes or locations are provided, other than indicative structure in the Landscape Plan (see Appendix 5) with their design to follow future catchment modelling.	
28	41. The FRA states local drainage contractors will undertake surveys of local drainage infrastructure – confirming therefore no detailed assessment of the local drainage infrastructure has been undertaken to date.	The Applicants have committed to undertake appropriate infiltration testing and other surveys pre-construction, which will subsequently inform the detailed drainage design. This commitment is outlined in the ***SuDS Infiltration Note*** (REP2-012) submitted at Deadline 2. The Applicants note comments raised by Suffolk County Council during issue specific hearing 2 regarding the assumptions presented in the ***SuDS Infiltration Clarification Note.*** This note will be updated and re-submitted at Deadline 4.
29	42. The FRA states a Surface Water and Drainage Management Plan will be developed to meet the requirements of the national policy frameworks, but no details are provided.	Both an ***Outline Operational Drainage Management Plan*** (***ExA.AS-1.D3.V1***) and an update to the ***draft DCO*** (document reference 3.1) to reflect the need for submission and approval of an Operational Drainage Management Plan have been submitted at Deadline 3.
Flood Risk Policy Framework		
30	43. The SPR ES contains a detailed analysis of national, sector and local policies relevant to flood risk. These are therefore not discussed below in any detail. These documents include: • Over-arching National Policy Statement for Energy (EN-1) (DECC, 2011);	Noted.

ID	Written Representation	Applicants' Comments
	• National Planning Policy Framework (NPPF) for Flood Risk and Coastal Change (MHCLG, 2014); • Preliminary Flood Risk Assessment for Suffolk (SCC, 2017); • Strategic Flood Risk Assessment (SCDC, 2018); • Suffolk Local Flood Risk Management Strategy (SCC, 2016); • East Suffolk Catchment Flood Management Plan (EA, 2009); and • Friston Surface Water Management Plan (SCC, 2020).	
31	44. The NPPF makes specific comment about use of the sequential, risk-based approach to the location of development, stating: '*the aim should be to keep development out of medium and high flood risk areas (Flood Zones 2 and 3) and other areas affected by other sources of flooding where possible*'.	
32	45. The NPPF goes on to state: '… *other forms of flooding should be treated consistently with river flooding in mapping probability and assessing vulnerability to apply the sequential approach across all flood zones'*.	
33	46. The Suffolk FRM Strategy (2016) clearly states planning authorities should only approve development … '*that does not increase overall risk of all forms of flooding* …'.	
34	47. Over-arching National Policy Statement for Energy (EN-1) states (5.7.3): '*The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages*	

ID	Written Representation	Applicants' Comments
	in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new energy infrastructure is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, by reducing flood risk overall.'	
35	48. Of particular relevance to this planning application, EN-1 goes onto state (5.7.20 to 5.7.22): '*Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts*'	
36	49. The SCC/SCDC have drawn particular attention (as advised by SPR themselves in the Environmental Statement Volume 3 Appendix 20.1 Water Resources and Flood Risk Consultation Responses) to the above requirement stating 'it is apparent any exceedance events would have an adverse impact on Friston'. '*The surface water drainage arrangements for any project should be such that* ***the volumes*** *and* ***peak flow rates*** *of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect*'; and '*It may be necessary to provide surface water storage* ***and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site****. There may be circumstances where it is appropriate for infiltration facilities or attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation.'*	The Applicants are considering the incorporation of infiltration basins within the surface water management system at the Onshore Substations, in response to comments raised by SCC who indicated this was their preferred method of discharge for surface water from the Onshore Substations. An illustrative infiltration design has been submitted by the Applicants at Deadline 2 and is presented in the ***SuDS Infiltration Note*** (REP2-012). The Applicants note comments raised by Suffolk County Council during issue specific hearing 2 regarding the assumptions presented in the ***SuDS Infiltration Clarification Note.*** This note will be updated and re-submitted at Deadline 4. The Applicants have committed to undertake appropriate infiltration testing pre-construction, which will inform the detailed drainage design. The Applicants refer to their response provided in row 24 of this table regarding their submission of an ***Outline Operational Drainage***

ID	Written Representation	Applicants' Comments
37	These statements are particularly noteworthy as they require the Applicant to ensure total volumes and not just peak flows must be reduced to pre-proposed project quantities.	***Management Plan*** (ExA.AS-1.D3.V1) at Deadline 3 and updates to the ***draft DCO*** (document reference 3.1).
GWP Assessment of Impacts		
38	**Problems with Applicants' Methodology** 51. The FRA and related flood risk documentation has been used by the Applicant to: support a Sequential Test on site location selection; assess increased flood and sediment risk due to the proposed development; and identify flood mitigation measures.	i) Please refer to row 18 of ***Table 2.1 Site Selection*** and row 23 of this table regarding the Applicants' application of the Sequential Test. ii) Please refer to the Applicants' response provided in rows 08 and 13 of this table regarding their consideration and assessment of flood risk to Friston Village. All forms of flooding have been assessed. As previously stated, the Applicants will be undertaking percolation testing at the onshore substation site which will inform the detailed design for sustainable drainage. Further information is provided in the ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) submitted at Deadline 3. iii) This is incorrect. Please refer to the Applicants' response provided in row 26 of this table. The ***Outline Operational Drainage Management Plan*** commits the Applicants to limiting surface water runoff rates to the equivalent of the pre-existing greenfield (undeveloped) runoff rate. iv) The Applicants disagree. The temporary surface water and drainage management measures described in ***section 11*** of the ***Outline CoCP*** (an updated version has been submitted at Deadline 3 (document reference 8.1) are informed by construction industry good practice guidance as detailed in the EA's PPG notes (including PPG01, PPG05,
39	52. There are problems with the methodologies of each of these components as follows: i) The Sequential Test and RAG assessment only consider fluvial flood risk. There is no consideration of pluvial (or any other) flooding risks. If there had been, the site selection process would have identified more favourable locations in flood risk terms; ii) The local flood risk assessment is based solely on large scale public domain maps on fluvial (river) and pluvial (storm runoff) flood risk. There has been no attempt to understand or quantify the existing and on-going flood risk in Friston Village and its limited drainage conveyance. Flood and sediment impact risk has only been assessed using 'percentage of catchment disturbed' values as a flood metric – this is entirely inadequate. SPR state future surveys will be undertaken, but the requirement of EN-1 is for flood risk from all sources to be taken into account at all stages of the	

ID	Written Representation	Applicants' Comments
	planning process to ensure that development is directed away from areas of highest risk. Leaving the question of flood risk to Friston Village to future assessment is clearly contrary to EN-1; iii) The proposed flood mitigation measures only consider reducing the Peak flows leaving the site and not reducing the Total flows to pre-development rates. Given the existing pre-development flood risk in Friston demonstrates pre-development flow restriction, increasing Total flows leaving the site will increase flood risk in the village; iv) The proposed flood mitigation measures have no proven design and have not proven they are achievable. The little detail provided indicates the flood mitigation measures are designed for the constructed operational site and not the larger Temporary Works construction disturbed areas.	PPG08 and PPG21) and CIRIA's 'Control of water pollution from construction sites: Guidance for consultants and contractors (C532) – A guide to good practice' (2001).
40	53. Both SCDC and Anglian Water state all forms of flooding need to be assessed.	
41	54. SCC and SCDC both state there is little acknowledgement of Ordinary Watercourses in the SPR submissions – the water course north of Friston Village is an Ordinary Watercourse – and localised flood risk must be assessed.	The Applicants query this statement. The Applicants have agreed with the Councils that the ES and FRA adequately characterise the baseline environment (see LA-05.03 of ***SoCG*** (AS-046)) and that land drainage consent from the LLFA will be required for construction where it crosses ordinary watercourses (see LA-05.21). ***Section 20.2.3*** of the FRA (***Appendix 20.3*** (APP-496)) discusses the Friston watercourse and notes that it is Main River to its northern point at Church Road. To the north of this it was observed, during a site walkover, that there is no watercourse until the disconnected field ditches located along the boundaries of the fields at the Onshore Substation. **Section *20.4.2.2*** of the FRA (***Appendix 20.3*** (APP-496)) discusses ordinary watercourses and notes that flood risk related to these watercourses is usually associated with the overland flow and surface

ID	Written Representation	Applicants' Comments
		water flood risk and therefor their potential impacts are discussed within the surface water flooding sections of the FRA.
42	55. SCC and SCDC state the Main River through Friston has not been considered in sufficient detail and is at much higher risk from silt laden runoff that stated by SPR, which will increase flood risk in Friston.	***Section 20.2.3*** of the FRA (***Appendix 20.3*** (APP-496)**)** discusses the Friston watercourse and notes that it is Main River to its northern point at Church Road. Although outside the DCO Limits the Friston watercourse has been considered within the assessment. In ***section 20.4.3.10*** of the FRA (***Appendix 20.3*** (APP-496)) the Applicants have confirmed that a Surface Water and Drainage Management Plan will be provided as part of the COCP, as secured under the requirements of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1), agreed with regulators and implemented to minimise the flood risk to the onshore substation National Grid infrastructure and downstream locations including Friston. An ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) and an update to the ***draft DCO*** (document reference 3.1) to reflect the need for submission and approval of an Operational Drainage Management Plan post-consent have been submitted at Deadline 3. This will address all operational drainage measures and confirm the final SuDS designs.
43	56. SCC and SCDC state there is no adequate assessment of construction phase or operational phase impacts on surface water flows – which are expected to increase flood risk in Friston.	The Applicants have noted that surface water drainage measures will be required during both construction and operation. Issues pertinent to construction phase drainage, including consideration of surface water runoff, will be managed through the implementation of the CoCP which must accord with the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1).

ID	Written Representation	Applicants' Comments
44	57. SCC and SCDC state there is no assessment of exceedance flood events which overwhelm the site drainage schemes – exceedance would have an adverse impact on Friston.	The Applicants have confirmed that an Operational Drainage Management Plan will be developed post consent in accordance with the ***Outline Operational Drainage Management Plan*** (ExA.AS-1.D3.V1) submitted at Deadline 3. This will address all operational drainage measures, including exceedance events, and confirm the final SuDS designs. An update to the ***draft DCO*** (document reference 3.1) to reflect the need for submission and approval of an Operational Drainage Management Plan has also been submitted at Deadline 3.
45	**GWP Findings Contrary to Policy** With reference to relevant policies, the Applicants' Assessment does not follow: i) NPPF, Suffolk FRM Strategy and EN-1 all state the importance of assessing flood risk from all sources of flooding at all stages in the planning process. The Applicant has failed to consider pluvial flood risk when considering the Sequential Test and the RAG Assessment, both primary tools for assessing site location; ii) The EN-1 clearly states Peak and Total Flows leaving a developed site should be no greater than the pre-development situation. The Applicant has failed to consider Total flows. This is especially important for Friston where the existing drainage is already inadequate during extreme rainfall events.	i) The Applicants refer to their response provided in row 21 of this table. ii) The Applicants refer to their response provided in row 39 of this table.
46	**Disagreement with Applicants Assessment** i) The Sequential Test completed to date is inadequate as it only considers fluvial (river) flood risks (see Drawing No. SASESFRA2010-7). If it had included pluvial flood risk (see Drawing Nos. SASESFRA2010-4, 5 and 7	i) and ii) The Applicants refer to their response provided in row 21 of this table.

ID	Written Representation	Applicants' Comments
	and Appendix 1), less vulnerable locations would have been identified in other catchments;	
47	ii) The RAG assessment completed to date is inadequate as it only considers fluvial (river) flood risks. If it had included pluvial flood risk, less vulnerable locations would have been identified in other catchments;	
48	iii) The use of catchment scale indicators to assess increase in flood risk and sediment mobilisation to Friston village is completely inadequate. There has been no technical assessment by the Applicant of the storm runoff flow conveyance through and across the village ditches, culverts and overland flowpaths, nor a walk-over survey of the fields comprising the footprint of the proposed site itself – the Applicant states as much, whilst also recognising the need and their intention to undertake such work. During a walk-over survey of the site by ourselves, local deep depressions (possibly former gravel pits – see Drawing No. SASESFRA2010-3 and Appendix 6) clearly receive surrounding field runoff – this demonstrates the current flood risk in Friston (see Appendix 1 and 2) is caused by flows smaller than currently perceived by the Applicant and mitigation measures will need to be larger;	The Applicants FRA utilises information available at the time of writing from a variety of sources including the EA and the LLFA (SCC) as well as information in the public domain. Additionally, the Applicants were also provided with a copy of the Friston Surface Water Management Plan, entitled Friston Surface Water Study - Technical Report, (BMT, May 2020) which has been reviewed by the Applicants and subsequently discussed with SCC as part of the Statement of Common Ground meetings. The Applicants have noted that there was a review of recent flooding events within this study including flood events in the Friston area, resulting from overland flow, that occurred during late 2019 – early 2020. The study identified that these flood events were a result of multiple flow paths and not a direct result of surface water runoff from land associated with the proposed site of the onshore substation or the National Grid infrastructure. This has been agreed between Applicants and the Councils (see LA-05.6 of ***SoCG*** (AS-046)).
49	iv) The Applicant solely focuses on the attenuation of post development Peak flood flows back to pre-development levels and does not consider Total flows. This is not only against government policy but is critical to flood risk reduction in locations which already have restricted flood flow conveyance and are already at flood risk. It is extremely difficult to reduce Total flows to pre-development levels without infiltration as a mitigation	The Applicants refer to their response provided in row 21 of this table.

ID	Written Representation	Applicants' Comments
	measure. No infiltration testing has been undertaken, therefore the entire viability of the flood risk mitigation measures is unproven;	
50	v) The Applicant states surface water and drainage management plans will be developed at a later stage. This is unacceptable and clearly contrary to EN-1 and other policy. The Applicant needs to prove the development is manageable now, not at a later date, to ensure that the policy requirement to direct development away from the areas of highest risk and to not increase flood risk, are met;	The ***Outline Operational Drainage Management Plan*** ExA.AS-1.D3.V1) submitted at Deadline 3 demonstrates that surface water runoff can be managed and attenuated and provides an overview of the information to be provided in full at detailed design in the final operational drainage management plan post consent. This secures measures which limit discharges to a controlled rate (equivalent to the greenfield runoff rate) and ensures that any redirected overland flow routes do not cause an increase in off-site flood risk. Onshore works cannot commence until these plans have been approved by the relevant local planning authority.
51	vi) Given the doubts above about the ability to satisfactorily mitigate the risks, the absence of these assessments and scheme designs are fundamental flaws in the applications.	
52	**Conclusion on impacts** 59. The SPR FRA does acknowledge: i There will be an increase in storm runoff due to the impermeable nature of the buildings, roads and parking areas, in the catchment upstream of Friston; ii There will be an increase in sediment mobilisation during the construction phase due to ground disturbance, excavation, soil stripping and stockpiling, in the catchment upstream of Friston;	Noted.
53	60. We contend the flood impacts have however been inadequately assessed to date and are therefore insufficiently understood to enable mitigation measures to be conceptually designed. Using catchment scale percentages of disturbance is completely inadequate.	The Applicants refer to their response provided in row 21 of this table. The Applicants also refer to agreement on their approach to assessing flood risk via ETG meetings as described in ***section 20.2*** of ***Chapter 20 Water Resources and Flood Risk*** (APP-068)

ID	Written Representation	Applicants' Comments
54	61. The Applicant needs to undertake detailed surveys and modelling of the Friston Village drainage network and upper catchment area, to understand current runoff rates, current flow restrictions, and the extent to which Peak and Total Flow reductions are required. These assessments must necessarily come before the grant of development consent to meet the requirements of EN-1 and to ensure that the authorised development is capable of being delivered without creating flood risks or worsening existing risks.	The Applicants refer to their response provided in row 38 of this table. The Applicants have committed to undertake appropriate infiltration testing pre-construction, which will subsequently inform the detailed drainage design.
GWP Findings on Flood Risk Mitigation		
55	**Criticism of Applicant's mitigation proposals** 62. The Applicant solely focuses on the attenuation of post development Peak flood flows back to predevelopment levels and does not consider Total flows. This is not only against government policy but is critical to flood risk reduction in locations which already have restricted flood flow conveyance and are already at flood risk. It is extremely difficult to reduce Total flows to pre-development levels without infiltration as a mitigation measure. No infiltration testing has been undertaken to date and therefore the entire viability of the flood risk mitigation measures is unproven.	The Applicants note that these are repeat comments made by SASES which the Applicants have responded to previously in this Table. The Applicants refer to their response provided in rows 12, 16, 24 and 50 of this table.
56	63. The Applicant has also failed to consider the wider areas disturbed during construction works (see Appendix 4), and the longer residency times and lower discharge rates required for clarification of runoff water to remove excess turbidity. With elevated turbidity during construction works, ground infiltration will not be possible without clarification – this will require large settlement lagoons and infiltration basins, whose size has not been estimated and therefore it is not demonstrated there is sufficient area within the site.	

ID	Written Representation	Applicants' Comments
57	64. There is no conceptual sizing of drainage infrastructure, other than basins identified on the landscape plan (see Appendix 5). It is critical the Applicant demonstrates the necessary storm water runoff capture and retention is achievable, during both the construction and operational phases.	
58	65. The topographic slope at the location of the proposed landscape basins, slopes to the west by 2-3m metres. Any attenuation ponds in these areas will need to be excavated by 1-2m at their eastern end, and 1-2m high bunds constructed at the western end. Approximate areas - derived from the landscape plan – appear to be at least 100m x 50m. Potentially therefore > 10,000m^3 could be retained in each such structure, which would be above ground at its western end. There are significant concerns that such landscaped structures are not designed to be over-topped by extreme events. If the scheme was to be overwhelmed by an extreme event there is a risk of catastrophic failure of the western above ground bund and the release of > 10,000m3 of water instantaneously through the village. Retention ponds of this size, located immediately above a residential village may require future regulation under the Reservoir Act (1975, amended by the Flood and Water Management Act, 2010) – which requires consideration of a risk-based approach for structures >10,000m^3. The scale of these structures, and the risks associated with them, have not been assessed adequately or at all. It is a very serious shortcoming in the applications.	
59	**Suggested additional steps to be taken by the Applicant** 66. The difficulty in prescribing mitigation measures is that extensive work must be carried out before the grant of development consent to ensure that	

ID	Written Representation	Applicants' Comments
	the proposals can be satisfactorily delivered in flood risk terms. The Applicant must: i) Undertake extensive infiltration testing to determine the capacity of the underlying ground to receive sufficient water to ensure Total flows do not exceed pre-development runoff rates; ii) Demonstrate the areas required for runoff storage are available and reachable – this includes clarification settlement for the construction phase drainage management, including cabling routes; iii) Cabling routes at lower elevations than the substations site will require their own construction phase water management infrastructure; iv) Demonstrate this localised groundwater recharge will not result in groundwater flooding in Friston – the gravel deposit ends in the village (see Drawing No. SASESFRA2010-6); v) Undertake above-ground runoff water storage risk assessment, including over-topping design, reservoir failure inundation modelling, and demonstrated consultation on Reservoir Act regulation. vi) These measures are not identified as being suitable for post-consent consideration under the terms of requirements in the DCOs. They are matters which require prior consideration to meet the terms of policy.	
Conclusions		
60	67. SPR propose the construction of more than 14 hectares of hardstanding infrastructure in a small rural agricultural catchment that currently drains through the middle of Friston Village. The construction phase will disturb and de-vegetate more than 25 hectares of the catchment, almost 10% of the watershed.	The Applicants refer to the responses provided in this Table in relation to these conclusions.

ID	Written Representation	Applicants' Comments
61	68. Friston Village is already vulnerable to and suffers from regular pluvial storm water runoff flood water and sediment inundation. Suffolk County Council (SCC) commissioned a detailed hydraulic model study of the flood risk in the village, which confirmed both its current vulnerability and the source of much of this water coming from the proposed development site. Local observations indicate this model underestimates flooding actually reported despite not allowing for localised infiltration depressions.	
62	69. The stripping of vegetation and the later construction of impermeable hardstanding by SPR will increase the peak and total flows and sediment loading leaving the proposed development footprint.	
63	70. The Applicant has promoted this site as a low flood risk location, however contrary to national planning and energy policies and local flood management strategy, the Applicant has not considered all forms of flood risk including pluvial and groundwater. There are other sites considered by the Applicant that have lower pluvial and groundwater flood risk – the location at lowest risk of flooding has not been selected	
64	71. The Applicant recognises the increase in flood risk to Friston caused by the permanent development and proposes detention basins to reduce the peak storm flows arriving at the village. These detention basins will be above ground level on their downslope side and each could contain > 10,000m^3 of water, creating a significant impoundment risk immediately above the village.	
65	72. The Applicant does not consider reduction of total flows - this is contrary to the specific stated position of SCC, and the wider policy framework (NPPF, EN-1) to not support development which increases flood risk.	

ID	Written Representation	Applicants' Comments
66	73. The Applicant has failed to demonstrate the viability of ground infiltration which would be necessary to reduce total flows leaving the site. The Applicant has not considered the potential for Friston Village to have an increase in groundwater flooding risk due to the use of infiltration basins.	
67	74. The Applicant has failed to consider the required drainage for the wider construction area nor the increased turbidity of that runoff which requires clarification prior to off-site discharge, and therefore has not proven the construction phase drainage is viable.	
68	75. Policy non-compliance, lack of evidence of viable surface water management schemes and therefore demonstrable increase in flood risk, mean the development cannot be considered permissible and should be rejected.	
69	76. Improvement to flood risk mitigation will be required if the development is to progress, including demonstrating viability of infiltration to reduce total flows without increasing groundwater flooding risk, developing a viable construction phase water management scheme, and ensuring the on-site storm water impoundment risk is fully mitigated. These matters cannot wait until after the grant of development consent since they go to the principle of whether the proposed development in this location is acceptable in flood risk terms.	

2.4 Cultural Heritage

ID	Written Representation	Applicants' Comments
3 Review of Baseline Archaeological Data		
01	3.0.1 The archaeological and cultural heritage impacts of the proposed EA1N and EA2 schemes fall into two main categories – the offshore marine element and the onshore terrestrial element – and these are considered separately in both sets of the submitted application documents. The assessment of the marine element is set out in Chapter 16 – Marine Archaeology and Cultural Heritage – in Volume 1 of each Environmental Statement, while the assessment of the terrestrial element is set out in Chapter 24 – Archaeology and Cultural Heritage – of each Environmental Statement. Each chapter is supported by numerous figures in Volume 2 of the Environmental Statement and technical appendices in Volume 3.	No comment.
3.1 Marine Archaeology and Cultural Heritage		
02	3.1.1 Given the different locations of the proposed EA1N and EA2 offshore windfarms, the pair of Marine Archaeology and Cultural Heritage assessments focus on different areas of the seabed intended for the sites of the turbines and their respective cable corridors, which converge at a single onshore connection point.	No comment.
03	3.1.2 An assessment and critique of the Marine Archaeology and Cultural Heritage assessments falls outside the scope of my instruction from SASES. However, as the statutory body responsible for overseeing England's marine archaeological resource, Historic England indicated in their Relevant Representation that they will be addressing the issues raised by the submitted EA1N and EA2 assessments in more detail, and I would endorse their comments and conclusions on these matters.	

ID	Written Representation	Applicants' Comments
3.2 Terrestrial Archaeology and Cultural Heritage		
04	3.2.1 Both the EA1N and EA2 schemes make a single landfall and share an onshore cable corridor route. This is intended to feed power into an adjacent pair of substations, accompanying National Grid substation and supporting infrastructure which would be constructed on land to the north of Friston village centre.	No comment.
05	3.2.2 Chapter 24 of both Environmental Statements sets out the baseline conditions for the historic environment within and surrounding the onshore development area. This is based on two main sources of information, the first being an Archaeological and Cultural Heritage Desk-Based Assessment produced by Headland Archaeology in 2018 and submitted as Appendix 24.3 to each of the Environmental Statements. This desk-based assessment was undertaken before the currently proposed locations for the onshore infrastructure had been finalised and the results of the desk-based assessment consequently informed the site selection process as well as the submitted Environmental Statements. As a desk-based assessment, it brings together all of the known archaeological and cultural heritage evidence for the area, but by its very nature cannot provide an understanding of any as-yet-unknown archaeological or cultural heritage evidence which might lie within the area. For this reason, as is set out in paragraph 5.8.9 of NPS EN–1, desk-based assessments alone are not considered to be sufficient to assess the archaeological and cultural heritage potential of the area, and are usually required to be complemented by archaeological fieldwork.	
06	3.2.3 In order to complement the desk-based assessment, a limited degree of fieldwork has been undertaken in the form of a geophysical survey of the onshore development area. This was completed by Headland Archaeology in 2019 and a report is included as Appendix 24.4 to each	The Applicants disagree that a limited degree of fieldwork has been undertaken. REP1-025 – REP1-033 provide information on the geophysical surveys, trial trenching and earthworks carried out to inform

ID	Written Representation	Applicants' Comments
	Environmental Statement. This is the second source of information for the Environmental Statement. This survey has been carried out in consultation with the Suffolk County Council Archaeological Service (SCCAS) and the areas which have not been surveyed are stated by the applicant to be either not accessible or not conducive to survey. As a result, at the point of submission approximately 64% of the onshore development area had been subject to geophysical survey. Breaking this coverage down further, it is stated that 61% of the landfall location, 88% of the onshore cable corridor and 90% of the sub-station and National Grid substation have so far been subject to geophysical survey (ES para. 24.1.6). This means that 36% of the onshore development area – a substantial proportion – has not yet been subject to geophysical survey and has only been assessed as part of the desk-based assessment. Where areas are not considered to be conducive to geophysical survey, they have apparently not been subject to any alternative form of archaeological evaluation, such as trial trenching.	the assessment which the Applicants consider are adequate for the purposes of the EIA. It is the view of the Applicants that the commitment to 5% sampling of the onshore development area (being progressed by the Applicants) plus ongoing consultation with the Councils' advisers as part of that process, provides sufficient intrusive survey data. Further information on the preliminary trial trenching surveys can be found in the following documents submitted at Deadline 1: • ***Pre-Construction Trial Trenching Report*** (REP1-023); • ***Onshore Archaeology Geophysical Survey Reports 1-9*** (REP1-025 – REP1-033); and • ***Onshore Archaeology Earthworks Report*** (REP1-034) Further trial trenching will be undertaken in 2021.
07	3.2.4 The archaeological desk-based assessment (Appendix 24.3) and the geophysical survey (Appendix 24.4) are the main sources of information for potential below-ground remains within the onshore development area, including the cable route and the substation areas. Given their limitations, there is a clear need for a considerable amount of further archaeological evaluation to be undertaken in order to inform the DCO application process	Additional onshore archaeology geophysical survey reports have been submitted at Deadline 1 (see row 06 above).
08	3.2.5 The applicant does acknowledge the need for this further work, and both sets of submitted application documents include an Outline Written Scheme of Investigation: Onshore (DCO Document 8.5), which sets out a strategy for archaeological trial trenching, earthwork identification and metal-detecting to inform the post-consent mitigation strategy, the headline	The Applicants refer to their response provided in row 06 of this table.

ID	Written Representation	Applicants' Comments
	details of which are also set out in the Outline Pre Commencement Archaeology Execution Plan (Onshore) (DCO Document 8.20). A detailed assessment of the results of the geophysical survey and the identification of a series of archaeological areas requiring further fieldwork are set out in detail in Chapter 24 of both Environmental Statements. However, throughout all of these documents there is a presumption that these fieldwork elements will be carried out post-consent, but before the commencement of any development work, and not ahead of the DCO decision being made.	
09	3.2.6 It is widely recognised that geophysical survey alone (in this case, magnetometry) does not offer a sufficiently detailed set of results to enable the full and confident characterisation of buried archaeological features. Indeed, many classes of archaeological feature and deposit, including human burials, are not readily identifiable in this fashion. It is encouraging that the need for further investigative work, such as trial trenching, is acknowledged by the applicant and that consultations with the SCCAS are ongoing. As the statutory body responsible for managing the archaeological impacts of development in the county, I would support the position of the SCCAS in these discussions. However, the fact remains that the material contained within the desk-based assessment and the geophysical survey do not as yet provide sufficient tangible detail of the nature, character and extent of the buried archaeological resource within the proposed onshore development areas, including the site of the substations at Friston.	The Applicants refer to their response provided in row 06 of this table and to ***section 4*** of ***Clarification Note - Archaeology and Cultural Heritage*** (REP1-021) submitted at Deadline 1.
10	3.2.7 Paragraph 5.8.9 of NPS EN-1 clearly states that where a development site includes or has the potential to include heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is	

ID	Written Representation	Applicants' Comments
	insufficient to properly assess the interest, a field evaluation. In projects of this magnitude and complexity, it is reasonable to expect at least a programme of trial trenching to be undertaken before any consent is granted in order to test and confirm the results of the geophysical survey, evaluate areas which could not be surveyed, and inform the decision-making process, rather than simply to inform the post-consent mitigation strategy.	
11	3.2.8 The fact that such fieldwork has not been undertaken by the applicant to date represents a major shortcoming in the assessment of the known and potential archaeological resource of the onshore development area, including the landfall, cable routes and the substation sites, and as such the applications as they currently stand invite the making of a poorly informed decision with regard to the potential impact of the proposed scheme on the buried archaeological resource. By failing to provide the required level of detail, the applicant is failing in their stated duty under paragraph 5.8.10 of NPS EN–1, specifically that they 'should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.'	The Applicants consider that the surveys undertaken to inform the assessment of archaeology and heritage assets is sufficient to inform the assessment of relevant receptors and therefore that the application accords with the principles of NPS EN-1.
4 Identification of Impacts		
12	4.1 Chapter 24 of both the EA1N and EA2 Environmental Statements concerns the onshore archaeology and cultural heritage of the proposed schemes. These chapters assess the potential impacts of the proposed scheme upon the onshore historic environment and heritage assets, and describes the embedded and potential mitigation methods which have already been or will be applied as the proposed projects progress.	No comment

ID	Written Representation	Applicants' Comments
13	4.2 Although the EA1N and EA2 schemes are presented as two separate DCO applications, because of the interrelationship between the onshore elements of both schemes the submitted Environmental Statements consider the cumulative impact of the proposed EA1N and EA2 schemes individually and together, with additional consideration of other proposed developments (ES para. 24.1.12). Given that both schemes share their onshore elements, the heritage content of both Environmental Statements is essentially identical, and the comments and critique offered here apply equally to both documents.	
14	4.3 The full details of the various phases and requirements of the proposed development, including the temporary and permanent structures associated with each phase, are described in Chapter 6 – Project Description – of the Environmental Statements. These are summarised in submitted Table 24.2, which lists all of these elements and presents a detailed list of what are described as 'realistic worst case scenarios' relating to the impacts likely to be caused by the construction, operation and decommissioning phases of the proposed development. These are sub-divided into those affecting the landfall, the cable route, the onshore substation and the National Grid infrastructure.	
15	4.4 Under the impacts caused by the construction phase of the project, Table 24.2 specifically identifies the following: • Landfall: The effect on the significance of heritage assets, as a result of change in their setting, owing to the establishment and presence of the temporary, surfaced and fenced landfall CCS [construction consolidation sites], HDD [horizontal directional drilling] temporary works area, associated security and task lighting and the presence of the HDD drilling rig, ducting materials and welfare facilities.	No comment

ID	Written Representation	Applicants' Comments
	• Cable route: The effect on the significance of heritage assets, as a result of change in their setting, owing to the establishment, presence and activity associated with the temporary, surfaced and fenced CCS, and HDD temporary working areas, and their content of plant, materials and welfare facilities, and the temporary access roads. • Substation: The effect on the significance of heritage assets, as a result of change in their setting, owing to the establishment and presence of the emerging onshore substation with building height up to 15m, electrical infrastructure height up to 18m (such as shunt reactors, transformers, harmonic filters, etc.). • National Grid infrastructure: The effect on the significance of heritage assets, as a result of change in their setting, owing to the establishment and presence of the emerging National Grid substation with Air Insulated Substation (AIS) building up to 6m in height, and external equipment to connect to the overhead line of 16m in height.	
16	It should be noted that each of the sub-sections of the construction phases includes a long list of working areas, constructions consolidation sites and enabling works, covering a very large footprint. It should also be noted that this summary only gives the dimensions and impact of a single sub-station, for either EA1N or EA2, and not the combined totals for the two schemes	For clarity, the Cumulative Impact Assessment (CIA) in ***section 24.7.1*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-072) is supported by ***Appendix 24.2*** (APP-513). This considers the combined footprints of both substations (see ***Tables A24.2.1*** Scenario 1 and ***A24.2.2*** Scenario 2).
17	No indication of timescale for the construction phase is given in this table, features only being referred to as 'temporary' or 'permanent', but details included in Chapter 6 of the Environmental Statement – Project Description – indicate that the construction of the landfall is likely to last 12 months, the cable route 24 months, the substation up to 30 months and the construction of the National Grid substation up to 48 months, with realignment of the overhead power lines taking 12 months. Commissioning and reinstatement of land following the construction phase are expected to	The Applicants have recognised the need to consider the potential for impacts during construction, operation and decommissioning. However, having considered the location, nature and duration of works during those three phases, the Applicants concluded that it is only in the operational phase that the Projects have potential to materially affect the significance of heritage assets due to change in setting. This conclusion was discussed with and accepted by the ETG and has been agreed in

ID	Written Representation	Applicants' Comments
	take an additional 12 months (ES Sections 6.9.1–7). Overall, then, the construction programme is presumed to last at least five years, meaning that any of the 'temporary impacts on heritage assets identified as belonging to this phase are going to be of several months' if not several years' duration.	SoCG's with both Historic England (REP1-059) and the Councils (AS-046).
18	4.7 Under the impacts caused by the operational phase of the project, Table 24.2 identifies the following: • Landfall: No impacts. • Cable Route: No above ground infrastructure. • Substation: An operational footprint of 190m x 190m served by a 1.7km long and 8m wide access road. The effect on the significance of heritage assets, as a result of change in their setting, owing to the presence of the onshore substation with buildings up to 15m in height and electrical infrastructure up to 18m. • National Grid infrastructure: An operational footprint of 310m x 145m together with 10,000m2 for three cable sealing end compounds, all serviced by a 500m x 3.7m access road. The effect on the significance of heritage assets, as a result of change in their setting, owing to the presence of the National Grid substation with Air Insulated Substation (AIS) building up to 6m in height, and external equipment to connect to the overhead line of 16m in height.	During operation, it is expected that there will be no further requirement for land to be disturbed or excavated, except in the event that onshore cables require repair or maintenance. However, these activities would not extend beyond the construction footprint, and would be relatively rare and localised in occurrence. As such, direct physical impacts to buried archaeological remains during operation were scoped out. The presence of above ground infrastructure could, however, have an indirect (non-physical) impact on heritage significance as a result of change in the setting of heritage assets due to the presence of new above ground onshore infrastructure. It was therefore these setting effects which were assessed for operation.
19	4.8 Again, it should be noted that this summary only gives the dimensions and impact of a single substation, for either EA1N or EA2, and not the combined totals for the two schemes, for which the impact would be greater.	The proposed East Anglia TWO project and the proposed East Anglia ONE North project are assessed under two construction scenarios: • Scenario 1 - the proposed East Anglia TWO project and proposed East Anglia ONE North project are built simultaneously; and

ID	Written Representation	Applicants' Comments
		• Scenario 2 - the proposed East Anglia TWO project and the proposed East Anglia ONE North project are built sequentially. Full assessment of scenario 1 and scenario 2 can be found in ***Appendix 24.2*** (APP-513). This considers the combined footprints of both substations (see ***Tables A24.2.1*** Scenario 1 and ***A24.2.2*** Scenario 2).
20	4.9 It is generally accepted, and I agree, that once the landfall and cable route infrastructure has been installed it will have no further impact upon buried or upstanding heritage assets during its operational phase, until the scheme is decommissioned. However, as discussed above in Section 3, there remains a need to properly evaluate and mitigate the impact which the installation of the cable run will have upon any heritage assets, particularly buried archaeological features, in order to inform the decision-making process.	The Applicants refer to the ***Outline Onshore Written Scheme of Investigation*** (WSI) (an updated version has been submitted at Deadline 3, document reference 8.5). The Applicants have conducted an initial targeted programme of trial trenching (see row 06 of this table) which will enable the progression of an appropriate mitigation strategy to be defined and agreed with SCC Archaeological Service (SCCAS), including identifying any features worthy of preservation in situ which may require design micrositing considerations (within the confines of other environmental and engineering constraints) to ensure avoidance, where possible.
21	4.10 The third phase of impacts summarised in Table 24.2 pertain to the decommissioning phase, but no indication of the potential impact of the decommissioning process on heritage assets is presented by the applicant. The reason given is that no decision has been made regarding the final decommissioning policy for the onshore infrastructure, but it is stated that 'impacts no greater than those identified for the construction phase are expected for the decommissioning phase' (ES Table 24.2). This lack of a detailed decommissioning process is a significant omission, and this very cursory assessment of the potential heritage impacts of the decommissioning process is not sufficient to assess the likely heritage impacts of this phase of the scheme. The reversibility of the scheme is heralded as a key part of its sustainability and cited as a major factor in mitigating the impacts identified during the construction and operational	It is correct that the impacts will be no greater than those identified for the construction phase are expected for the decommissioning phase. An Onshore Decommissioning Plan will be provided, as secured under the requirement 30 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). No decommissioning activities can commence until this has been approved by the Local Planning Authority.

ID	Written Representation	Applicants' Comments
	phases of the scheme, but without details of the likely scope, scale and nature of the decommissioning works being presented it is impossible to make a suitably informed decision on the overall heritage impact of the scheme from beginning to end.	
22	4.11 In line with paragraph 5.8.1 of NPS EN–1, it is clearly acknowledged by the applicant that the construction, operation and decommissioning of the onshore infrastructure will have an impact upon the settings of surrounding heritage assets. Under the heading of Potential Impacts (EA1N ES section 24.6), paragraph 158 states that: Indirect (non-physical) impacts on the historic environment, as stated in NPS EN-3 (DECC 2011b: 67), include heritage assets being affected by change in their setting. Indirect (non-physical) impacts upon significance as a result of change in the setting of heritage assets have the potential to occur throughout the lifetime of the proposed East Anglia ONE North project, thus encompassing all phases, from construction, into operation and subsequent decommissioning. Indirect non-physical impacts upon the setting of heritage assets are most relevant as a result of the presence of above ground infrastructure for the proposed East Anglia ONE North [and project during the operational phase, the effects of which may be long-term or 'permanent' in nature. Indirect non-physical impacts upon the setting of heritage assets may also arise as a result of construction and decommissioning works, although effects will be, by comparison, shorter in duration and of a temporary nature, and as such it is considered that only changes in setting due to the operation of the proposed East Anglia ONE North project would be of sufficient duration to merit detailed assessment, see Appendix 24.7.	No comment
23	4.12 This is expanded upon further in paragraph 216, which states that:	No comment

ID	Written Representation	Applicants' Comments
	Activities undertaken as part of construction works for the proposed East Anglia ONE North project have the potential to impact designated and non-designated heritage assets in an indirect (non-physical) manner, associated with change in their setting. Temporary indirect non-physical impacts resulting from change in the setting of heritage assets, should they occur, may do so through the presence of machinery, construction traffic and general construction activities taking place within the onshore development area. The sight, sound, any dust created, and even smell, during the construction phase has the potential to indirectly (non-physically) impact the setting of heritage assets and their associated heritage significance.	
24	4.13 The relevant sections of the EA2 Environmental Statement contain the same texts, barring references to the EA2 project.	
25	4.14 There is, then, a fundamental contradiction in the submitted application documents between those sections of the Environmental Statements quoted above, which clearly identify a detrimental impact on heritage assets which will be caused by the construction, operation and decommissioning of the onshore infrastructure, and the submitted assessment of heritage impacts (Appendix 24.7), which focusses only on the impact of the operational phase of the scheme and does not consider the likely impacts which are due to be caused by the construction or decommissioning of the schemes' infrastructure. Paragraph 217 of both Environmental Statement states that: Any changes in setting due to construction activities would be temporary and of sufficiently short duration that they would not give rise to material harm. Indirect (non-physical) impacts as a result of change in the setting of heritage asserts during the construction phase have therefore been excluded from further consideration (i.e. no impact).	The Applicants consider that there is no contradiction in the application documents on this point. As noted by SASES, the Applicants have recognised the need to consider the potential for impacts during construction, operation and decommissioning. However, having considered the location, nature and duration of works during those three phases, the Applicants concluded that it is only in the operational phase that the Projects have potential to materially affect the significance of heritage assets due to change in setting. This conclusion was discussed with and accepted by the ETG and has been agreed in SoCG's with both Historic England (HE) (REP1-059) and the Councils (AS-046).

ID	Written Representation	Applicants' Comments
26	4.15 Although some, but by no means all, of the construction impacts will be temporary, they are still due to last for a period of several years and the proposed working area covers a significantly larger footprint than the operational phase of the proposed schemes. In many cases, the boundaries of the construction area lie in very close proximity to heritage assets, where they will arguably have a much greater impact than some of the later, operational phases of the proposed scheme.	All works undertaken during the construction phase that would result in material permanent change in the setting of heritage assets have been considered in the assessment of operational impacts. The Applicants recognise that the boundary of the development area lies close to six Listed Buildings: • Aldringham Court (Grade II); • High House Farm (Grade II); • Little Moor Farm (Grade II); • Woodside Farm (Grade II); • War Memorial, Friston; and • Church of St Mary, Friston (Grade II*) The potential for construction works to adversely affect these assets has been considered as part of the assessment. In the case of Aldringham Court, impact on heritage significance was a key consideration in the design and location of the cable route to the south of this asset. The final design, developed in consultation with the ETG, has minimised the predicted impact of the projects, now predicted to be of negligible magnitude (***Appendix 24.7*** (APP-519), paras 127-137)). Land within the development area immediately adjacent to High House Farm and Little Moor Farm has been included as part of the landscape mitigation plan and it is considered that the nature of these proposed works being adjacent presents no risk of harm to these two Listed Buildings.

ID	Written Representation	Applicants' Comments
		Land adjacent to Woodside Farm and the church and war memorial at Friston is also included in the development area to allow for landscape mitigation works. The inclusion of land on Church Road and the track leading to Woodside Farm reflects proposed improvements to drainage in this area. Works would involve temporary excavations for sub-surface pipes and, again, there is no reason to predict harm to the setting of the Listed Buildings nearby.
27	4.16 By failing to provide the required level of detail, the applicant is again failing in their stated duty under paragraph 5.8.10 of NPS EN–1 to 'ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.' Concluding that there will be 'no impact' and dismissing the heritage impacts likely to be caused by the construction phase as set out in the preceding paragraphs of their own report demonstrates a clear failure on the part of the applicant to adequately quantify and assess the heritage impacts across the full duration of the scheme. As a consequence, on the basis of the documents submitted to date it is not possible for an informed decision to be made about the overall heritage impact of the scheme.	The Applicants consider that the level of detail provided is entirely appropriate and proportionate to the potential for construction phase works to adversely affect heritage assets through change in their settings. As noted in row 25 of this table, this approach was discussed and agreed with the ETG.
5 Impact on the Setting of Heritage Assets		
28	5.0.1 Having identified the shortcoming of the submitted application documents with regard to the baseline archaeological data (Section 3) and the identification of the likely heritage impacts of the construction, operation and decommissioning phases of the proposed projects (Section 4), this section considers the heritage impact assessments which have been submitted for the designated heritage assets which surround the site	The Applicants do not accept that there were shortcomings within Application documents, nonetheless further trial trenching has been undertaken this year. Further information on the preliminary trial trenching surveys can be found in the following documents submitted at Deadline 1:

ID	Written Representation	Applicants' Comments
	of the proposed substations, National Grid substation and supporting infrastructure at Friston.	• ***Pre-Construction Trial Trenching Report*** (REP1-023); • ***Onshore Archaeology Geophysical Survey Reports 1-9*** (REP1-025 – REP1-033); and • ***Onshore Archaeology Earthworks Report*** (REP1-034) Further trenching will be undertaken in 2021
29	5.0.2 Having limited their assessment of the heritage impact of the proposed schemes solely to their operational phases, the applicant sets out their assessment of the heritage impact of the proposed schemes on the settings of adjacent heritage assets in section 24.6.2.1 of both Environmental Statement. The content of this assessment is informed by the results of the Onshore Archaeology and Cultural Heritage Desk-based Assessment undertaken in 2018 and submitted as Appendix 24.3 to both applications, and the subsequent Assessment of the Impact of Onshore Infrastructure in the Setting of Heritage Assets written in 2019 and submitted as Appendix 24.7 to both applications.	
Identifying Affected Settings		
30	5.1.1 Setting is defined in the NPPF as: The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of the asset, may affect the ability to appreciate that significance or may be neutral.	No comment
31	5.1.2 Changes to the setting of a heritage asset have the potential to affect the contribution which setting makes to the significance of the heritage asset. It follows that any changes to the setting of a heritage asset may result in positive, neutral or negative impacts upon the significance of the heritage asset. In some circumstances it may be possible to apply mitigation methods which serve to maximise enhancement and/or minimise or reduce harm.	

ID	Written Representation	Applicants' Comments
32	5.1.3 In order to assess the likely impact of the scheme, the applicant has followed the five-step process for assessing and mitigating impacts upon the setting of heritage assets, as set out in Historic England's Historic Environment Good Practice Advice in Planning 3 (GPA3; 2nd edition), published in 2017. Specifically, these steps are: • Step 1: Identify which heritage assets and their settings are affected. • Step 2: Assess the degree to which these settings make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated. • Step 3: Assess the effects of the proposed development, whether beneficial or harmful, on that significance or on the ability to appreciate it. • Step 4: Explore ways to maximise enhancement and avoid or minimise harm. • Step 5: Make and document the decision and monitor outcomes.	
33	5.14 As is set out in the Environmental Statements, the EA1N and EA2 DCO applications are presented on the assumption that the EA1N substation will be located on the eastern of the two identified locations, while the EA2 substation will be located on the western location. For the purposes of the heritage impact assessment, three different operational arrangements were considered: EA1N alone, EAS2 alone and the cumulative impact of EA1N and EA2 together. All three combinations of substation will include the National Grid substation, associated infrastructure and link roads.	No comment
34	5.1.5 Based on the premise that either the EA1N or EA2 schemes or both the EA1N and EA2 schemes would be granted consent, the initial desk-	

ID	Written Representation	Applicants' Comments
	based assessment identified two discrete areas in which the operation of onshore infrastructure would lead to material change in the setting of heritage assets. It concluded that the impact on the settings of six designated heritage assets, all of them Listed Buildings, would need to be assessed in more detail. However, following discussions with the Archaeology and Cultural Heritage Expert Topic Group, two additional listed buildings – one listed at Grade II* and the other at Grade II – were brought into scope, expanding this list to eight designated heritage assets, split across the two locations. These are the heritage assets which form the subject of the second, more detailed assessment (Appendix 24.7).	
35	5.1.6 The first of the two main areas identified by applicant in which the operation of onshore infrastructure would lead to detrimental impacts on the settings of designated heritage impact was land in the vicinity of the proposed onshore substations, National Grid substation and supporting infrastructure at Friston, which is surrounded by seven Grade II*- and Grade II-listed buildings (Figure 1). Specifically, the seven listed buildings identified as being affected by the proposed new substations and infrastructure are: • The Church of St Mary, Friston (National Heritage List Entry No. 1287864) Grade II* • Friston War Memorial (National Heritage List Entry No. 1435814) Grade II • Woodside Farmhouse (National Heritage List Entry No. 1215744) Grade II • Friston House (National Heritage List Entry No. 1216066) Grade II • Little Moor Farm (National Heritage List Entry No. 1215743) Grade II	No comment

ID	Written Representation	Applicants' Comments
	• High House Farm (National Heritage List Entry No. 1216049) Grade II • Friston Post Mill (National Heritage List Entry No. 1215741) Grade II*	
36	5.1.7 The Grade II-listed 'Numbers 1 and 2 (Church Walls), Number 3 and Number 4 (Church Walls Cottage)' which stand 50m to the south-west of the church (Figure 1) were not considered by the applicant or the Archaeology and Cultural Heritage Expert Topic Group to be likely to be impacted upon by the proposed substations, primarily due to the limited nature of their setting, and, as such, they were not included in the subsequent assessment.	No comment
37	5.1.8 The second area of heritage impact identified by the applicant pertains to a section of the onshore cable route in an area of woodland immediately to the south of Grade II-listed Aldringham Court (National Heritage List Entry No. 1393143). Here, the construction of the cable route will require the permanent removal of a corridor of woodland which forms part of the setting of the listed building. Aldringham Court lies some 3km to the west of Friston, approximately half way between Friston and the coast, and a critical review of the likely heritage impact of this element of the proposed scheme lies outside the scope of my instruction from SASES.	No comment
38	5.1.9 In my professional opinion, the above list of heritage assets is an accurate identification of the designated heritage assets which would be affected by the proposed substation developments at Friston. However, as is discussed below, I disagree with the assessment of the severity of the likely heritage impacts of the proposed schemes as set out by the applicant in the submitted documents.	The Applicants note that SASES agree with the scope of the setting assessment in terms of which assets merit detailed consideration.

ID	Written Representation	Applicants' Comments
5.2 Assessing Heritage Impact		
39	5.2.1 Having identified the heritage assets which will be impacted upon by the proposals, the submitted Environmental Statement and supporting technical appendices set out the details of the designated heritage assets which will be affected by the operational phase of the proposed onshore infrastructure for both EA1N and EA2 schemes, separately and together, and assess the impact which the proposed schemes would have upon their significance. As was discussed in Section 4, this detailed assessment does not consider the likely impacts upon the settings of these heritage assets which will be caused during the construction and decommissioning phases of the scheme, and this is a fundamental failing on the part of the applicant to address the likely heritage impact of the entire scheme throughout its lifespan.	The Applicants have addressed concerns from SASES regarding the treatment of construction and decommissioning impacts in previous comments. (see rows 25, 26 and 27 of this table)
40	5.2.2 In assessing the magnitude of the impact upon the heritage significance of the affected heritage assets, the applicant has adopted a matrix-based approach. For reference, the matrix is reproduced here as Figure 2. On one axis, the Heritage Importance of a heritage assets is graded on a Negligible/Low/Medium/High scale. On the other axis, the Magnitude of the adverse or beneficial impact upon the heritage asset is graded on Negligible/Low/Medium/High scales. The resulting Significance of Effect is then able to be calculated on a egligible/Minor/Moderate/Major scale. In calculating these scores, the applicant has considered Grade II-listed buildings to be of medium heritage importance, while Grade II* buildings are considered to be of high importance. This reflects the division between the consideration of Grade I and II* buildings and Grade II buildings suggested by the NPPF, although the exclusion of a 'Very High' category from the Heritage Importance scale has resulted in these being split between 'High' and 'Medium', rather than 'Very High' and 'High', as	It should be noted that SASES, in referring to the 'matrix approach', is describing how the assessment arrives at conclusions regarding the significance of effects, not impact magnitude. Determination of impact magnitude (as explained in ***section 2*** of ***Appendix 24.7*** (APP-519) involves an assessment of the degree to which the proposed projects would increase or diminish the significance of a heritage asset. This assessment requires an understanding of the significance of the asset, including the contribution made by setting (Step 2 of HE's process) and an analysis of how the proposed projects would change the setting of the asset.

ID	Written Representation	Applicants' Comments
	might otherwise be the case. The results of each assessment are discussed on a case-by-case basis below.	
41	5.2.3 With specific regard to the group of seven Grade II*- and Grade-II listed buildings adjacent to the proposed Friston substations, paragraph 239 of both Environmental Statements summarises the potential impact of the operational phase thus: For the seven assets in the vicinity of the onshore substation at Friston it is the presence of the onshore substation and National Grid substation, rather than the proposed permanent overhead realignment works that would lead to adverse impact on significance. These impacts are caused primarily by the extent and visual prominence of the onshore substation and National Grid substation which would change the landscape character in the settings of heritage assets currently experienced and appreciated in a rural agricultural setting.	No comment
42	5.2.3 I do not agree with this conclusion, for reasons which are explored more fully below. The proposed realignment works will result in the construction of an additional pylon situated closer to heritage assets than the current pylons, changing and having a negative impact upon their settings. The impacts of the proposed development schemes are also considered to be more than simply visual, and by focussing on the extent and visual appearance of the proposed substations, attention is drawn away from the impacts which will be caused by the associated infrastructure, including a 1.7km new link road which will traverse the setting of several heritage assets across what are currently agricultural fields.	The Applicants note that SASES do not agree with the conclusion quoted earlier in para 5.2.3 but considers that it remains a robust analysis of the situation. A line of pylons is already present in the landscape and, although there would be an additional pylon and a minor re-alignment, the heritage assets would continue to be experienced in a setting containing a similar line of pylons. In contrast, construction of the substations would result in the conversion of a significant portion of the setting of the three Listed farmhouses from a rural agricultural landscape to a substantial built development. It is this change in landscape character that harms the significance of the farmhouses. The substations are also responsible for the loss of the sequential views towards Friston church on the path from

ID	Written Representation	Applicants' Comments
		Little Moor Farm, the primary cause of harm to the significance of the church.
43	5.2.4 The Environmental Statements then summarise the conclusions of the submitted assessment of the heritage impact of the onshore infrastructure and refers the reader to their content (ES Appendix 24.7). Again, this assessment only focusses on the operational phase of the project, and not the commissioning or decommissioning phases. The assessment concludes that the proposed onshore infrastructure will change the appearance and character of the settings of the identified heritage assets, as well as changing specific views of and between them. Despite this acknowledgment of a change of landscape character, the submitted report concludes that visual change is the only aspect of the heritage assets' settings which would be affected by the proposed developments. This conclusion is fundamentally at odds with the established practice for the identification and assessment of setting prescribed by the National Planning Policy Guidance and by Historic England in GPA3. As has been seen, the application of such an overly-narrow focus has also been tested at the Court of Appeal and found to be wanting.	The Applicants have commented on SASES views on construction and decommissioning impacts (see rows 24 - 26 of this table). The Applicants disagree that the assessments as a whole are at fault due to an overly-narrow focus on visual change. The Applicants considered the potential for components of setting, other than those experienced through sight, to be materially affected by the Projects but concluded, in consultation with the ETG, that only visual change was relevant in this case (***Appendix 24.7*** (APP-519), paras 13-14)). For the avoidance of doubt, the Applicants consider that the predicted change in landscape character is a visual matter as it relates to the appearance of the landscape. Indeed, despite its claim that change in setting other than visual change is relevant in this case, SASES fails to identify any relevant non-visual changes in its own assessments that follow. The Applicants consider that SASES is incorrect when it claims that the approach taken in the assessment is 'fundamentally at odds with established practice'. SASES appear to have confused HE guidance that a wide range of factors may be relevant in an assessment and believes it to mean that all factors must be considered at all times. As GPA3 advises in the 'Assessment Step 3 Checklist' (GPA3, page 13), "*The following is a (non-exhaustive) check-list of the potential attributes of a development affecting setting that may help to elucidate its implications for the significance of the heritage asset. It may be that only a limited selection of these is likely to be particularly important in terms of any particular development*."

ID	Written Representation	Applicants' Comments
		The SASES reading of the guidance is also at odds with the principle of 'proportionality' in assessment that HE promotes throughout GPA3. It is a sense of proportion that has ultimately guided the Applicants to focus its assessment of setting on visual change and on operation-phase impacts.
44	5.2.5 The applicant's assessment of the predicted visual changes in the setting of the heritage assets is illustrated by photomontages from thirteen viewpoints, four of which form part of the submitted Landscape and Visual Impact Assessment (ES Chapter 29) and nine produced specifically for heritage purposes. In addition to assessing the various combinations of the EA1N and EA2 schemes, the submitted assessments have also considered the potential heritage impacts before and after the application of the proposed mitigation. An Outline Landscape Mitigation Plan is set out in the submitted documents (Document 8.7) and this, in part, seeks to mitigate the adverse impacts caused by the operational elements of the onshore infrastructure. With regard to heritage impacts, this comprises two main approaches: the planting of new areas of woodland at Friston to screen the substations from view, and the reinstatement and reinforcement of historic field boundaries in the surrounding landscape in order to provide layered screening.	No comment
45	5.2.6 The efficacy of the proposed mitigation is considered on a case-by-case basis below. However, Historic England's GPA3 (para. 40) makes the following general observations on the use of screening, which should be heeded here: Where attributes of a development affecting setting may cause some harm to significance and cannot be adjusted, screening may have a part to play in reducing harm. As screening can only mitigate negative impacts, rather than removing impacts or providing enhancement, it ought never to be	No comment

ID	Written Representation	Applicants' Comments
	regarded as a substitute for well-designed developments within the setting of heritage assets. Screening may have as intrusive an effect on the setting as the development it seeks to mitigate, so where it is necessary, it too merits careful design. This should take account of local landscape character and seasonal and diurnal effects, such as changes to foliage and lighting. The permanence or longevity of screening in relation to the effect on the setting also requires consideration. Ephemeral features, such as hoardings, may be removed or changed during the duration of the development, as may woodland or hedgerows, unless they enjoy statutory protection. Management measures secured by legal agreements may be helpful in securing the long-term effect of screening.	
46	5.2.7 The submitted photomontages are highly selective and do not give a representative impression of either the character of the affected heritage assets and their settings, or of the likely impacts of the proposed developments. By only selecting years 1 and 15 of the proposed mitigation, these images also give a too infrequent and overly optimistic impression of the predicted growth of the mitigation planting. Although the validity of the depicted predicted growth lies outside the scope of this report, SASES have commissioned a parallel critique of the submitted Landscape and Visual Impact Assessment and this should be read in conjunction with the discussion presented below.	The Applicants agreed the assets to be included in the assessment of onshore heritage asset setting with the ETG at the 23rd January 2019 meeting (***section 24.2*** of ***Chapter 24 Archaeology and Cultural Heritage*** (APP-064)) and identified appropriate viewpoints to inform the assessment following a site visit with members of the ETG. The chosen viewpoints have been selected to illustrate the full range of ways in which the projects would change the settings of affect assets in ways that have potential to impact on the significance of that asset. The viewpoints are necessarily 'selective' but they are also representative of the predicted change in setting and include all of those necessary to fully inform the assessment.
47	5.2.8 The submitted assessment of the heritage impact of the onshore infrastructure (ES Appendix 24.7) also states that any changes in noise level during the operational phase are not considered to be sufficiently high as to warrant further consideration. This assessment focusses solely on the operational phase and not the construction or decommissioning phases, and therefore gives a false overall impression of any likely noise	The Applicants have commented on SASES position regarding the treatment of construction and decommissioning phases in the ES and on the approach taken to changes in noise levels. Please refer to rows 24-26 of this table.

ID	Written Representation	Applicants' Comments
	levels. Completely disregarding the detrimental impact which the introduction of any industrial noise into what is currently a tranquil rural landscape will have on the setting of the heritage assets which lie within it, even if that noise is considered to lie within 'acceptable' levels, is a significant omission on the part of the applicant and does not allow an informed decision to be made. Again, the detailed assessment of likely noise levels lies outside the scope of this report, but SASES have commissioned an independent assessment of the submitted noise assessment, and this, too, should be read in conjunction with the discussion presented below.	
5.3 Church of St Mary, Friston: Grade II*		
48	5.3.1 The parish church of St Mary (National Heritage List Entry No. 1287864) stands on a prominent rise at the northern edge of Friston, some 400m to the south of the southernmost extent of the EA1N substation site. The church comprises a nave and chancel with a south porch and square western tower. The earliest visible fabric is 11th century, including a blocked doorway in the north wall of the nave, but most of the medieval fabric is 14th and 15th century. The medieval fabric was extensively restored in the late 19th and early 20th centuries, including the complete rebuilding of the western tower.	No comment
49	5.3.2 The submitted report identifies that the significance of this heritage asset primarily lies in the medieval fabric of the church, which has considerable architectural, archaeological, artistic and historic interest. As a place of worship, the church has stood at the heart of the Friston community for a thousand years, and as the venue for baptisms, weddings and funerals is intrinsically linked with the social history of the village. This is exemplified by the presence of the Friston War Memorial within the	

ID	Written Representation	Applicants' Comments
	churchyard, which is listed in its own right and is discussed separately below.	
50	5.3.3 The submitted report identifies that the setting of the church contributes to its significance and that this setting can be appreciated at three different scales. First, there is the immediate setting of the churchyard, with its war memorial; second, there is the relationship with the settlement of Friston to the south, reinforcing the historic interest of the church as a component of this historic settlement. Thirdly, the report states, the church can be experienced as a prominent feature in views from the surrounding landscape. These views allow the church to be appreciated in its historic role as the spiritual and physical focal point of its parish, adding further to historic interest in the asset. This assessment does not capture the historical relationship between the church and the group of medieval farmsteads which lie to its north, to which it is connected by a footpath which extends northwards from the church, following the line of the parish boundary. This boundary is also the Anglo-Saxon hundredal boundary and, as such, is a feature of some antiquity in its own right.	The relationship between the church and Friston Moor is discussed by the Applicants in ***Clarification Note - Archaeology and Cultural Heritage*** submitted at Deadline 1 (REP1-021).
51	5.3.4 The proposed schemes would see the construction of the EA1N and EA2 substations 400m to the north of the church, with the National Grid substation and supporting infrastructure constructed beyond it to the north and west. Also significant, but not considered in the impact assessment, is the fact that that boundary of the onshore development area is shown extending southwards to the northern boundary of the churchyard itself and incorporates much of the lane to the north of the church. Although full details have not been provided by the applicant, this will bring construction activity into the immediate proximity of the listed building, exposing it to the physical and visual impacts of construction for a period of potentially five years or more. Similarly, the impacts which will be caused to the setting of	The reasons for placing the boundary of the development area on Church Road are described in the Applicants' comments in row 26 of this table.

ID	Written Representation	Applicants' Comments
	the listed building during the decommissioning phase of the project have not been assessed.	
52	5.3.5 The likely visual impact of the proposed development schemes on the Grade II*-listed church and its setting is illustrated in six photomontages. Photomontage CH VP8 is taken from the position of the war memorial at the eastern end of the church and shows the view looking north towards the substation site. The foreground of this viewpoint features a small group of four trees, which are among very few which stand in the churchyard, and this photomontage gives a very unrepresentative impression of the view to the north which can be obtained from much of the rest of the churchyard. Even despite this choice of viewpoint, it is apparent from these images that the EA1N and EA2 substations would be very visible from the churchyard, although some of these views would be filtered by the existing vegetation.	The locations selected for viewpoints to illustrate the visual relationship between the church and the projects were discussed and agreed with the ETG following a site visit by the group to experience the setting of the church. The Applicants consider that they are representative and sufficient to support an informed assessment.
53	5.3.6 Longer views from within Friston looking towards the church are illustrated in LVIA VP6, which shows the view from the green in Friston, with the tower of the church visible in the foreground and the upper extent of the substations visible beyond. Photomontage CH VP1 illustrates the view northwards towards the church from footpath which lies to its south, which shows the church highlighted against the sky and highest parts of the EA1N and EA2 substations visible through the trees beyond. The latter image is cited as an example of how the substations would appear to be subservient landscape features to the church, but this statement is misleading because the viewpoint selected is considerably lower than the church and is looking up towards it. In actuality, the substation buildings will be considerably taller than the church tower and much larger than the church itself.	The Applicants do not consider that the photomontage from CH VP1 is misleading. It is an accurate rendering of how the substations would appear when approaching the church from the south along a PRoW from the village. It is a matter of fact that the church is located on the top of a slight rise and therefore tends to be experienced slightly elevated in views.

ID	Written Representation	Applicants' Comments
54	5.3.7 Similar long-distance views are illustrated by LVIA VP9, taken from the road approaching the village from the south, and in CH VP2, which illustrates the view towards the church from a path heading west out of the village towards Friston Hall. In both images, the upper parts of the EA1N and EA2 substations would be visible in the background of views of the village and church. A final photomontage, CH VP4, is taken from adjacent to Little Moor Farm to the north (discussed below), but the church tower is clearly visible on the skyline from a distance of some 1.2km. These images indicate that all such views of the church from the north would be entirely blocked by the construction of the proposed substations and associated infrastructure and that the historical connection between the church and farmsteads to the north will be severed.	The relationship between the church and Friston Moor is discussed by the Applicants in ***Clarification Note - Archaeology and Cultural Heritage*** (REP1-021) submitted at Deadline 1.
55	5.3.8 What all of the submitted photomontages fail to capture are the uninterrupted views northwards from the churchyard, which look out over the proposed development site. There is, for example, no reversed view of CH VP4, which would indicate more clearly the visibility of the church across the full extent of the development site. Neither are any of the images taken from anything other than ground level – extensive views out across the development site which can be obtained from the top of the church tower (Figure 3). These views give a clear impression of quite how visible the church is from the north and the extent to which its northern setting will be compromised by the proposed development. Finally, there are no views provided from inside the church – the windows in the north wall of the church are low, large and glazed with clear glass, so that clear views out from the nave across the development site are afforded by those visiting and worshiping in the church, too (Figure 4).	LVIA VP2 illustrates the view looking north from a location on Church Road immediately to the north of the church. It therefore provides a representative example of the type of viewpoint that SASES suggests has not been illustrated.
56	5.3.9 The submitted heritage impact assessment concludes that the proposed development would result in 'at least some change' to the setting	No comment

ID	Written Representation	Applicants' Comments
	of the church, although it goes on to state that there would be no material impact upon the appreciation of the church from the churchyard, that there would be no material impact on the setting of the church in the longer views from the south, and that only the single public view from the footpath to the north would be lost. Using the matrix described above, the report concludes that the overall impact on the setting of the church would amount to an adverse impact of low magnitude and because the Grade II* building is considered to be of high heritage importance the result would be an adverse effect of moderate significance.	
57	5.3.10 In my professional opinion this conclusion significantly downplays the impact which the proposed schemes would have upon the setting of the church. The full extent of the substation development would be highly visible from within the church and churchyard, and the change of character from a rural agricultural landscape to a industrialised landscape would have a significant detrimental effect upon the setting within which the church is experienced. While the applicant argues that the church will remain the dominant building, it will be dwarfed by the scale, mass and extent of the proposed new development to the north.	The Applicants do not agree that the full extent of the substation would be highly visible or that the church would be dwarfed by the scale, mass and extent of the development when viewed from the churchyard. This is supported by photomontage CH VP8 in ***Appendix 24.7*** (APP-519).
58	5.3.11 The identification of the loss of the single long view from the north obtainable from the public footpath also fails to take into account the fact that land does not need to be publicly accessible in order to be considered a part of the setting of the church, so that all of the land to the north of the church from which it is visible and with which it has historical and social associations should be considered to be a part of its setting. This approach also highlights that the submitted assessment primarily focusses on the significance of views towards the church, rather than views obtained from it.	The Applicants agree with SASES regarding the extent of the setting. However, in analysing how that setting contributes to the significance of the church (Step 2 of HE's guidance), it is necessary to understand how the church is experienced in that setting. In this context, sequential views of the church when approaching from Friston Moor along a long-established PROW that leads to the church make a material contribution to the significance of the church in a way that incidental visibility of the church from private land does not.

ID	Written Representation	Applicants' Comments
59	5.3.11 By taking an overtly visual approach to the assessment, the applicant also fails to address the other elements of the church's setting which might be impacted upon by the proposed development. One of the key characteristics of the church is the peace and tranquillity of its rural setting, enabling those who visit and worship in the church to appreciate the building in relative silence. This experience will be considerably altered by the presence of the proposed substation complex, which will be visually intrusive, but which also has the potential to be aurally intrusive, too. By failing to consider and assess these potential impacts upon the church, the applicant has failed to address the policy requirements set out in paragraph 5.8.10 of NPS EN–1 and has reached an erroneously low conclusion on the likely impact of the scheme upon the setting of the church.	As noted above, the Applicants consider the potential for change in the aural environment to materially affect the significance of heritage assets (para 14 of ***Appendix 24.7*** (APP-519)) and concluded that it would not.
60	5.3.12 Also missing entirely from the assessment of the potential impact on the church and its setting is an acknowledgement that the construction area for the schemes is due to include much of the lane to the north of the church and appears to incorporate the roadside verges which form the northern boundary of the churchyard. If this is the case, then the construction phase has the potential to cause significant damage to the immediate setting of a highly graded heritage asset, and yet the submitted report repeatedly states that the construction phase will have no impact on any designated heritage assets. Without further details being submitted on this matter, and a proper assessment undertaken of the potential impacts of the construction phase on the immediate environs of the church it is not possible for an informed decision to be made regarding the potential heritage impact of the proposed scheme.	The Applicants have addressed this point in their comments (see rows 24-26 of this table).
61	5.3.13 With regard to the effectiveness of the proposed mitigation, the applicant indicates that, while the proposed additional planting will provide	The Applicants accept that the proposed mitigation planting will not materially reduce the impact of the projects on the significance of the

ID	Written Representation	Applicants' Comments
	a small degree of reduction to this harm, it is not sufficient to reduce the identified impact in any way. Put simply, by the applicant's own admission, the proposed mitigation will not reduce the heritage impact on the church.	church. This primarily reflects the fact that it is not possible to mitigate for the loss of contribution made to significance by the sequential views of the church from the PRoW to the north.
62	5.3.14 I conclude that the applicant has significantly underestimated the impact which the proposed schemes would have upon the setting of the church. My own assessment would be that the impact upon the setting of the church would be of high magnitude, resulting instead in an adverse effect of major significance. In planning terms, the applicant accepts that the identified harm to St Mary's church represents 'less than substantial harm' caused by changes to the setting of the heritage asset, although they do not express an opinion as to the degree of harm represented. This harm would be at the very upper end of the 'less than substantial' scale and, by the applicant's admission, is not able to be mitigated.	The Applicants consider that a finding of 'high magnitude' by SASES on the significance of the church is not supported by SASES own case. According to the criteria for impact magnitude (page 31 of ***Appendix 24.7*** (APP-519)), high magnitude adverse impacts are defined as follows: "*Key elements of the asset's fabric and/or setting are lost or fundamentally altered, such that the asset's heritage significance is lost or severely compromised*." Given that the fabric of the church would be entirely unaffected and the contribution that setting makes to the significance of the church largely retained, the Applicants consider that SASES has greatly overstated the predicted impact of the development.
5.4 Friston War Memorial: Grade II		
63	5.4.1 Friston war memorial (National Heritage List Entry No. 1435814) is situated in the churchyard, at the eastern end of the church. The memorial was constructed in 1920 and comprises a Portland stone cross, bearing a stone-carved 'Sword of Sacrifice', rising from an octagonal plinth on a four-stepped base.	No comment
64	5.4.2 The submitted assessment identifies the immediate setting of the memorial as comprising the churchyard. The heritage significance of the memorial lies in its historical interest as a witness to the tragic impact of world events on the local community and the sacrifice it made during 20th-century conflicts, design value and group value with the church of St Mary. As such, it is an important link with the social history of the settlement.	No comment

ID	Written Representation	Applicants' Comments
65	5.4.3 As with St Mary's church, the proposed schemes would see the construction of the EA1N and EA2 substations 400m to the north of the memorial, with the National Grid substation constructed beyond them to the north. Also significant, but not considered in the impact assessment, is the fact that that boundary of the onshore development area is shown extending southwards to the northern boundary of the churchyard itself and incorporates much of the lane to the north of the church. Although full details have not been provided by the applicant, this will have the effect of bringing construction activity into the immediate proximity of the war memorial, which will consequently be exposed to the physical and visual impacts of construction for a period of several years. Similarly, the impacts which will be caused to the setting of the listed building during the decommissioning phase of the project have not been assessed	The Applicants have commented on issues relating to the boundary of the development area and the treatment of construction and decommissioning works in the ES (see rows 24-26 of this table).
66	5.4.4 The likely impacts of the proposed development schemes on the Grade II-listed war memorial and its setting is illustrated in photomontage CH VP8, which is taken from a position north of the war memorial and shows the view looking north towards the development site. It is apparent that the EA1N and EA2 substations would be very visible from the churchyard, although some of these views would be filtered by existing vegetation.	The photomontage from CH VP8 (***Appendix 24.7*** (APP-519)) illustrates the likely visibility of the proposed substations from that part of the churchyard close to the War Memorial. This visualisation does not in itself illustrate the likely impact of the development as this requires consideration of how any predicted visual change would affect the contribution that setting makes to the significance of the War Memorial. This matter is dealt with systematically in the ES (para 110-113 of ***Appendix 24.7***)
67	5.4.5 As was discussed above, the foreground of this viewpoint features a small group of four trees, which are among very few which stand in the churchyard, and the image therefore gives an unrepresentative impression of the view to the north which can be obtained from the memorial.	The Applicants consider that this is a view looking north from the War Memorial and therefore must be representative of that experience. The small trees noted by SASES happen to be located to the north of the War Memorial.
68	5.4.6 The submitted report concludes that the overall impact on the setting of the war memorial would amount to an adverse impact of negligible magnitude and as the Grade II listed building is considered to be of	No comment

ID	Written Representation	Applicants' Comments
	medium heritage importance the result would be an adverse effect of minor significance.	
69	5.4.7 In reaching this conclusion, the report cites the fact that only views away from the memorial would be affected, but what the report does not mention and the photomontage does not show is that the inscribed front face of the war memorial is orientated to the south-west, so that anyone facing the front of the memorial will be facing towards the proposed development site (Figure 5). As a consequence, elements of the EA1N and EA2 substations will visually intrude into the backdrop of the memorial and have a significant impact upon the way in which the war memorial is experienced.	The Applicants do not agree that a person standing close to the War Memorial in order to read its inscription would find the substations visually intrusive. This opinion is based on the photomontage from CH VP8 (***Appendix 24.7*** (APP-519)).
70	5.4.8 Again, the focus on a visual assessment of impact overlooks other sensory impacts which the proposed development would have upon those honouring the memorial. A key characteristic of the setting of the memorial is the relatively tranquillity and solemnity of the churchyard, and this has the potential to be greatly impacted upon by the proposed schemes.	SASES offers no evidence to support their assertion that the proposed substations would affect the tranquillity or solemnity of the churchyard.
71	5.4.9 I conclude that the impact upon the setting of the memorial would be of medium magnitude, resulting in an adverse effect of moderate significance, rather than minor. In planning terms, the identified harm to the war memorial should be considered to represent 'less than substantial harm' caused by changes to the setting of the heritage asset, and this harm is at the lower end of the scale.	No comment
72	5.4.10 As with the church itself, the applicant indicates that, while the landscape mitigation will provide a small degree of reduction to this harm, it does not affect the initial assessment. The proposed mitigation is therefore ineffective with regard to harm to the war memorial.	The Applicants recognise that the proposed landscape mitigation would not materially decrease impact on the significance of the war memorial and this is reflected in their assessment of residual impacts.

ID	Written Representation	Applicants' Comments
5.5 Woodside Farmhouse: Grade II		
73	5.5.1 Woodside Farmhouse (National Heritage List Entry No. 1215744) stands 350m to the south of the south-western corner of the proposed EA1N substation site. It is a 17th-century, two-storey, timber-framed and plastered farmhouse, with an 18th-century southern extension.	No comment
74	5.5.2 The submitted assessment identifies that the heritage significance of the building lies primarily in the architectural and archaeological interest of its fabric, but also concludes that, as a former farmhouse, the agricultural land within which the building is situated contributes positively to its significance through its functional and historical links, which in turn adds additional historical interest to the property. The farmhouse is situated on a lane and is visible from across the fields to its east, in which it can be read as a farmhouse in an agricultural landscape.	No comment
75	5.5.3 The proposed scheme would see the construction of the EA1N substation closest to the building, with the EA2 substation beyond it and the National Grid substation and associated infrastructure to their north. Of particular significance is the fact that the construction area boundary encloses the block within which Woodside Farmhouse is situated, and takes in the southern end of the lane on which the building is situated. Although details have not been provided by the applicant, this will have the effect of bringing construction activity into the immediate proximity of the listed building, which will consequently be exposed to the physical and visual impacts of construction for a period of several years. Similarly, the impacts which will be caused to the setting of the listed building during the decommissioning phase of the project have not been assessed.	The Applicants have commented on issues relating to the boundary of the development area and the treatment of construction and decommissioning works in the ES (see rows 24-26 of this table).
76	5.5.4 The potential impact of the proposed development on the setting of Woodside Farmhouse is illustrated by a single photomontage, CH VP5.	The Applicants' assessment recognises that the substations would be located at least 300m to the northeast and views looking northeast in the

ID	Written Representation	Applicants' Comments
	This is taken from the footpath to the west of the farmhouse, looking east, and as such contains much of the western facade of the building, with views of the outbuildings behind it and to the north, but doesn't give a full impression of the views across and experience of the agricultural land to the east which are to be obtained from the eastern side of the building and from within the building itself. Even with this limited view, though, the images demonstrate that any development of the EA1N substation site will be particularly intrusive, with the character of the landscape being changed from a rural agricultural character to a mixture of industrial infrastructure and rural agriculture.	immediate setting of Woodside Farm would be changed from a predominantly rural agricultural character (albeit with existing pylons) to a mix of industrial infrastructure and rural agriculture. This would be a significant change in landscape character.
77	5.5.5 The submitted report concludes that the presence of the onshore substations and National Grid substation would represent a significant change in the character of the agricultural land which materially contributes to the setting, and therefore the significance, of the Grade II-listed Woodside Farmhouse. Therefore, the impact upon the heritage asset would be of medium magnitude for any scheme involving the development of the EA1N substation site, reducing to an adverse impact of low magnitude for just the EA2 sub-station. Because the Grade II building is considered to be of medium heritage importance the result would be an adverse effect of moderate significance for any scheme involving the development of the EA1N substation site, reducing to an adverse impact of low magnitude for just the EA2 sub-station.	No comment
78	5.5.6 In my professional opinion, this is an accurate assessment of the likely impact of the schemes if the EA1N site were to be developed, but I do not agree that the harm is reduced if only the EA2 site is developed. To draw a division between the two projects in this way overlooks the fact that the National Grid substation and associated infrastructure will be constructed in both cases, and given the relative proximity of these and their associated link roads to Woodside Farmhouse, I conclude that the	No comment

ID	Written Representation	Applicants' Comments
	development of either or both of the EA1N and EA2 substation sites would result in an adverse effect of moderate significance. In planning terms, the identified harm to Woodside Farmhouse represents 'less than substantial harm' caused by changes to the setting of the heritage asset, and this harm is towards the upper end of the scale.	
79	5.5.7 Having identified this level of harm, the applicant suggests that the proposed additional planting between Woodside Farmhouse and the proposed substations sites would be sufficient to reduce these impacts to an adverse impact of low magnitude for the EA1N sub-station and negligible magnitude for just EA2 sub-station. I am not of the opinion that the submitted information, and particularly the images presented as CH VP5 support this assertion, and consider that the additional planting will make very little difference to the overall impact of the proposed development on the setting of Woodside Farmhouse.	No comment
5.6 Friston House: Grade II		
80	5.6.1 Friston House (National Heritage List Entry No. 1216066) stands 450m to the west of the proposed EA1N substation site. It is a substantial two-storey brick house belonging to the first half of the 19th century, with a later 19th-century extension to the east. Friston House stands in the north-western part of a large expanse of landscaped grounds, measuring approximately 400m north to south and 300m east to west. The front of the house faces westwards onto Saxmundham Road, but it is flanked to the north by a courtyard and by a walled kitchen garden to the north-east. To the south of the house are lawns and the rest of the grounds are lightly wooded.	No comment
81	5.6.2 Historical mapping indicates that this arrangement represents the original configuration of the house and grounds, and as such the grounds	The Applicants do not accept that "*the juxtaposition between the formal designed elements of the grounds and the irregular agricultural*

ID	Written Representation	Applicants' Comments
	form an important part of the setting of the house and contribute towards its significance. In the submitted assessment report, the applicant argues that the setting of the Friston House is restricted solely to the area of the landscaped grounds and that the wider landscape does not form part of its setting or contribute towards its significance. However, to simply interpret the landscaped grounds as a private space, with no reference to the wider landscape overlooks the crucial element of the design which is the juxtaposition between the formal designed elements of the grounds and the irregular agricultural landscape beyond. The landscape beyond the grounds, including the development site, should therefore be considered to make a contribution towards the setting and therefore the significance of Friston House.	*landscape beyond*" was a matter of 'design' when Friston House was built in the early 19th century and certainly cannot be characterised as a 'crucial element' of that design. The relationship is entirely incidental and does not contribute to the significance of Friston House.
82	5.6.3 Having emphasised the enclosed and private nature of Friston House, the submitted assessment report acknowledges that eastward views across the proposed development site can be obtained from within the grounds and from some of the rear-facing windows of the property.	No comment
83	5.6.4 The proposed scheme will see the construction of the EA1N substation and the National Grid substation 200m from the eastern boundary of the grounds and 400m from Friston House. The access road is also intended to run close to the boundary of Friston House, although the applicant does not consider this at all. The construction area boundary partially follows the eastern boundary of the grounds, which will bring the construction works into the immediate proximity of the grounds, but some 200m from Friston House.	The Applicants have commented on the development area boundary (see row 26 of this table). SASES is mistaken when it states that "*the access road is also intended to run close to the boundary of Friston House*".
84	5.6.5 Two photomontages are provided to illustrate the likely visual effects of the proposed developments on views eastwards from Friston House, although both of these are taken from viewpoints which do not afford the most open views and neither is from the house itself, which has large rear	A detailed assessment of Friston House is provided in paras 71-80 of ***Appendix 24.7*** (APP-519) and the two photomontages should be understood as part of that assessment.

ID	Written Representation	Applicants' Comments
	windows overlooking the proposed development site. As such, the submitted images provide a false impression of the setting of Friston House. Photomontage CH VP6 is taken from a position on the lawns to the south of Friston House, which are demonstrably lower than the house itself, the footings of which are above eye level in the establishing image 'a', giving a misrepresentative view of the degree to which Friston House overlooks the development site. Even so, these images demonstrate that elements of the proposed onshore infrastructure will be visible from within the grounds, and will jar with the naturalistic features of the foreground.	Quoting from that assessment, "*the house was well-screened from public gaze and enjoyed private views to the south out over its lawn with a network of secluded walks through the wooded areas beyond. It was therefore designed to be enjoyed without any reference to the wider landscape and this arrangement survives to the present day.*" (para 73). The proposed developments would not be visible from most of the grounds and the two viewpoints illustrate exceptional locations within the grounds from where someone walking in the grounds (on the lawn and in the woodland) might obtain some view of the developments. These are therefore locations where setting contributes to the significance of the house and some visibility of the development is predicted. The more open views that SASES identifies would not make a positive contribution to the setting of the house and therefore do not need to be illustrated. The Applicants do not accept that CH VP6 gives a 'misrepresentative' view. Friston House was not designed to overlook the development site, it was placed to face south over its lawn with attractive framed views of the house from the lawn. CH VP6 illustrates the limited degree to which the development might be seen from the lawn when appreciating the house; the lower level of the lawn relative to the house is simply a matter of fact.
85	5.6.6 A second photomontage CH VP7 is taken from land to the rear of Friston House and gives a more representative impression of the views across the development site. This image calls into question the applicant's argument that the grounds were intended to be visually separated from the surrounding landscape. The photomontage indicate that the substations	CH VP7 is not representative of views across the development site. Instead (as explained in paras 75-78 of ***Appendix 24.7*** (APP-519)) it illustrates an exceptional part of the grounds to the house where such views are available. The relevance of these views to the heritage significance of the house are explained in the assessment.

ID	Written Representation	Applicants' Comments
	and associated infrastructure would be very visible between the trees from within this part of the grounds, as they would from the house itself, and would intrude upon the setting of the heritage asset.	
86	5.6.7 Both photomontages indicate that the growth of the planned mitigation planting during the first 15 years of operation would obscure elements of the proposed development, but not in its entirety, meaning that harm would still be being caused to the setting of the heritage asset even after 15 years of mitigation.	The Applicants note the predicted growth rate of trees but do not accept that visibility of the development in these views would, in any event, materially impact on the significance of Friston House.
87	5.6.8 The submitted report concludes that the presence of the onshore substations, National Grid substation and associated infrastructure would have a very limited effect upon the setting of Friston House and that this would not diminish the significance of the house in any way. The report concludes that the impact upon the heritage asset would be of negligible magnitude and because the Grade II building is considered to be of medium heritage importance the result would be an adverse effect of minor significance.	No comment
88	5.6.9 In my professional opinion, this assessment underestimates the importance of the juxtaposition between the formal grounds and the surrounding agricultural landscape in establishing the setting of Friston House and also underestimates the impact which the introduction of views of industrial infrastructure into an otherwise wooded landscape will have upon the setting of the house.	No comment
89	5.6.10 I consider that the impact upon Friston House would be of low magnitude, rather than negligible, although this still results in an adverse effect of minor significance in the applicant's matrix. In planning terms, the identified harm caused by changes to the setting of Friston House	No comment

ID	Written Representation	Applicants' Comments
	constitutes 'less than substantial harm' and this harm is at the lower end of the scale.	
90	5.6.11 The applicant concludes that, while the proposed landscape mitigation will result in a small degree of reduction to this harm, it will not be sufficiently effective for the initial result of the assessment to be altered in any way. Put simply, the applicant concludes that their own proposed mitigation scheme will do nothing to mitigate the adverse impact which the proposed developments will have on the setting of Friston House.	The Applicants accept that the proposed landscape mitigation would not materially reduce the predicted harm to the significance of Friston House.
5.7 Little Moor Farm: Grade II		
91	5.7.1 Little Moor Farm (National Heritage List Entry No. 1215743) stands approximately 300m to the north of the proposed substation sites and is a 17th-century, two-storey, timber-framed building with a brick-cased ground floor. The submitted assessment identifies that the heritage significance of the building lies primarily in the architectural and archaeological interest of its fabric, but also concludes that, as a former farmhouse, the agricultural land within which the building is situated contributes positively to its significance through its functional and historical links, which in turn adds additional historical interest to the property.	No comment
92	5.7.2 The submitted assessment also identifies historical connections between the property and the moated site to its west (Suffolk HER KND 011), with the Grade II-listed High House Farm further to the west (NHLE 1216049) and a small hedged enclosure to the north of Little Moor Farm (Suffolk HER KND 015). The report identifies all four features as representing farmsteads which formed an early hamlet on the edge of Friston Moor, an arrangement which survived into the late 19th century. These connections also add to the historical and archaeological interest of the property. Although the surrounding landscape has evolved, it retains its	

ID	Written Representation	Applicants' Comments
	agricultural character and the more modern elements of the landscape do not materially detract from the contribution which setting makes to the significance of the farmhouse.	
93	5.7.3 The proposed schemes will see the construction of new pylons on land immediately to the south of Little Moor Farm, together with three cable sealing end compounds, with the National Grid substation located 300m to the south of the building. Beyond this, the substations will be constructed. Also significant, but not considered in the impact assessment, is the fact that that boundary of the onshore development area is contiguous with the property boundary of Little Moor Farm, and surrounds it on three sides. Although details have not been provided by the applicant, this will have the effect of bringing construction activity into the immediate proximity of the listed building, which will consequently be exposed to the physical and visual impacts of construction for a potentially five-year period. Similarly, the impacts which will be caused to the setting of the listed building during the decommissioning phase of the project have not been assessed.	The Applicants have commented on issues relating to the boundary of the development area and the treatment of construction and decommissioning works in the ES (see rows 24-26 of this table).
94	5.7.4 The submitted photomontages CH VP3 and CH VP4 are cited as evidence of the resulting visual appearance of the proposed schemes in relation to Little Moor Farm during its operational phase. The position from which CH VP3 is taken lies on a public right of way 300m to the north-west of Little Moor Farm and as such does not actually provide any visual indication of any potential impact which may be had on Little Moor Farm itself. It does, however, indicate that even at a distance of 600m, all three combinations of the proposed substations and associated infrastructure are starkly visible against the skyline and will form a significant backdrop to the listed building.	The Applicants do not agree with SASES that CH VP3 does not inform the assessment of Little Moor Farm. This viewpoint, 300m to the north-west of Little Moor Farm illustrates how the Listed Building is currently experienced as part of the group of assets on Friston Moor (a component of its setting that contributes to its significance). The photomontages then show how the proposed development would change the landscape character in views looking south.

ID	Written Representation	Applicants' Comments
95	5.7.5 A clearer impression of the impact which the proposed schemes will have upon Little Moor Farm is afforded by photomontage CH VP4, which is taken from the public footpath immediately to the west of the building. These views convey the full extent and proximity of the substations, with the EA2 substation being particularly prominent. Perhaps most significantly, the visual representations of the site in the 15th year of its operational phase, which is intended to convey the effectiveness of the proposed landscape mitigation, shows little or no discernible change to the view. This indicates that the proposed mitigation would do nothing to affect the impact upon the setting of the Little Moor Farm.	The Applicants accept that the proposed landscape mitigation would not materially reduce the predicted harm to the significance of little Moor Farm.
96	5.7.6 The submitted report concludes that the presence of the onshore substations and National Grid substation would represent a significant change in the character of the agricultural land which materially contributes to the setting, and therefore the significance, of the Grade II-listed Little Moor Farm. Therefore, the impact upon the heritage asset would of medium magnitude and because the Grade II building is considered to be of medium heritage importance the result would be an adverse effect of moderate significance. In planning terms, this equates to 'less than substantial harm', although no indication is given by the applicant as to where they consider this impact will lie on the 'less than substantial' scale. In my professional opinion, the applicant's assessment of the impact of the operational phase is correct, with the harm lying towards the upper end of the 'less than substantial' scale.	No comment
97	5.7.7 The applicant concludes that the proposed landscape mitigation will result in a small degree of reduction to this harm, though it will not be sufficiently effective to alter the initial assessment in any way. The proposed mitigation scheme will do nothing to mitigate the adverse impact which the developments will have on the setting of Little Moor Farm.	No comment

ID	Written Representation	Applicants' Comments
5.8 High House Farm: Grade II		
98	5.8.1 High House Farm (National Heritage List Entry No. 1216049) stands some 350m to the north of the proposed substation sites and 250m west of Little Moor Farm. The building comprises a 17th-century, two-storey, timber-framed and plastered farmhouse with an L-shaped plan with later brick casing.	No comment
99	5.8.2 As with Little Moor Farm, the submitted assessment identifies that the heritage significance of the building lies primarily in the architectural and archaeological interest of its fabric, but also concludes that, as a former farmhouse, the agricultural land within which the building is situated contributes positively to its significance through its functional and historical links, which in turn adds additional historical interest to the property. As discussed above, High House Farm shares historical connections with the group of related farmsteads on the edge of Friston Moor, which also includes Little Moor Farm, as well as with the church to the south, and these connections add to the historical and archaeological interest of the property.	No comment
100	5.8.3 High House Farm is a relatively open site and the complex of buildings of which the listed farmhouse forms a part is highly visible from numerous locations in the surrounding landscape, with particularly long views from the south and south-east, across the proposed development site towards the church (Figure 6). These views will be blocked as a result of the proposed development and the historical connection between the farmsteads and the church and settlement to the south will be severed.	The Applicants agree that the complex of buildings to the east of High House Farm are visible in the wider landscape, unlike the Listed farmhouse itself. However, these buildings largely date from the beginning of the 20th century and their prominence in views does not contribute in and substantive way to the heritage significance of the Listed Farmhouse beside them.

ID	Written Representation	Applicants' Comments
101	5.8.4 The proposed schemes will see the construction of new pylons on land immediately to the south of High House Farm, together with three cable sealing end compounds, with the National Grid substation located 350m to the south of the building. Beyond this, the substations will be constructed. Also significant is the fact that the construction area boundary line follows the southern property boundary of High House Farm. As is the case for Little Moor Farm, this will bring construction activity into the immediate proximity of the listed building, which will consequently be exposed to the physical and visual impacts of construction for a period of several years. Neither the impacts which will be caused to the setting of the listed building during the construction or decommissioning phases of the project have been assessed.	The Applicants have commented on issues relating to the boundary of the development area and the treatment of construction and decommissioning works in the ES (see rows 24-26 of this table).
102	5.8.5 High House Farm is featured in photomontage CH VP3, together with Little Moor Farm, which is taken from a public right of way 100m to the north of High House Farm and as such does not actually provide a visual indication of any potential impact which may be had on High House Farm itself. It does, however, indicate that even at a distance of 400m, all three combinations of the proposed substations and associated infrastructure are starkly visible against the skyline and will form a significant backdrop to the listed building.	As noted for Little Moor Farm, the Applicants considers that CH VP3 illustrates how this Listed Building is currently experienced as part of the group of assets on Friston Moor (a component of its setting that contributes to its significance). The photomontages then show how the proposed development would change the landscape character in views looking south
103	5.8.6 A better impression of the likely impact on the setting of High House Farm is given by photomontage LVIA VP5, which is to be found in Chapter 29 of the Environmental Statement – Landscape and Visual Impact Assessment – and not the heritage chapter. LVIA VP5 is taken from a point some 50m to the west of High House Farm, so again does not offer a completely accurate rendering of the likely appearance of the substation site. The impression given by this image is misleading, because the unhindered viewpoint presented in image 'a' of the sequence is not the	The assessment of High House Farm in paras 61-66 of ***Appendix 24.7*** (APP-519) makes reference to VP5 in its analysis of predicted change in the setting of this asset.

ID	Written Representation	Applicants' Comments
	same as the base image used for the later views in the series. However, the LVIA VP5 images are sufficient to give a strong impression of the extent of the development and the change of character which would be brought about by its construction.	
104	5.8.7 A second feature of the LVIA VP5 images is the presence in the foreground of a planted hedge, which is shown in relative maturity in the year 1 image and even more so in the year 15 image. Given the problems with the framing of this image, it is not clear exactly where this hedge is intended to be planted, but it will do nothing to affect the long views across the development area which are currently afforded from the garden and ground- and first-floor windows of High House Farm (Figure 6). The applicant also accepts that in this instance, the proposed mitigation will do nothing to affect the impact of the scheme on High House Farm.	No comment
105	5.8.8 The submitted report concludes that the presence of the onshore substations, National Grid substation and associated infrastructure will represent a significant change in the character of the agricultural land which materially contributes to the setting, and therefore the significance, of the Grade II-listed High House Farm. However, the report concludes that in this instance the impact upon the heritage asset would only be of low magnitude and because the Grade II building is considered to be of medium heritage importance the result would be an adverse effect of minor significance.	
106	5.8.9 In my professional opinion, this assessment substantially undervalues the contribution which setting makes to the significance of High House Farm, which should be considered to be comparable to that for Little Moor Farm, with which it shares many characteristics. In that instance, the applicant concluded that the impact would be of medium magnitude and the arguments which they present for this disparity are not	

ID	Written Representation	Applicants' Comments
	compelling. I consider the impact upon the heritage asset would be of medium magnitude in this instance, too, resulting in an adverse effect of moderate significance, rather than minor. The applicant states that the identified harm to High House Farm caused by changes to the setting is 'less than substantial', although they offer no indication where this might sit on a scale of harm. I place this harm towards the upper end of the scale.	
107	5.8.10 As with Little Moor Farm, the applicant concludes that, while the proposed landscape mitigation will result in a small degree of reduction to this harm, it is not sufficiently effective for the initial result of the assessment to be altered in any way. The applicant concludes that their proposed mitigation scheme will do nothing to mitigate the adverse impact which the proposed developments will have on the setting of High House Farm.	
5.9 Friston Post Mill: Grade II*		
108	5.9.1 Friston post mill (National Heritage List Entry No. 1215741) is located on the west of the village, some 900m to the south-west of the proposed substation site. The mill dates from 1812 with 19th-century modifications, and its significance is primarily derived from the architectural and historical interest of the building and its surviving mechanisms, which make it one of the best-surviving examples of a post mill in the world. The mill is currently on the Heritage at Risk register and is opened to the public as part of the Heritage Open Days, so that visitors can climb the mill and look out over the surrounding landscape, including the substation site.	Quoting from the assessment of Friston Post Mill in para 114 of ***Appendix 24.7*** (APP-519), para 114: "*The justification of its Grade II* listing is carefully explained in the relevant list entry, referring to the architectural and historic interest of the structure. In summary, it is "judged to be one of the finest remaining post mills in the world". The reasons for designation relate entirely to the mill itself, the survival of its 19th century structure and mechanisms and the resulting legibility of the wind-powered milling process in this particular type of windmill. It follows that the heritage significance of this asset lies primarily in its fabric.*" It follows from this that the primary opportunity afforded to visitors on open days is the ability to examine the internal mechanisms of the mill, not normally accessible. The opportunity to look out of the windows

ID	Written Representation	Applicants' Comments
		exists but this does not add to a visitor's appreciation of the heritage significance of the mill.
109	5.9.2 The submitted assessment identifies two main elements to the setting of the mill. The first being the immediate environs of the mill and associated miller's house to the north. The second element is the longer views of the mill which are afforded, particularly from the south and the west, in which the mill stands taller than the surrounding buildings.	No comment
110	5.9.3 The proposed scheme would see the construction of the EA1N substation 900m to the north of the mill, with the EA2 substation situated beyond it and the National Grid substation to their north. The site of the mill also lies well outside the boundary of the construction area, from which it is separated by the built form of Friston.	
111	5.9.4 The potential impact of the proposed development on the setting of the mill is illustrated by a single photomontage, CH VP9, which is taken from a location some 450m to the south-west of the mill. As such, this image does not provide an appreciation of the views which are to be obtained from the mill itself or its immediate environs, and does not capture the relationship between the mill and the development area. These images indicate that the upper elements of both the EA1N and EA2 substations are likely to be visible as part of the built skyline of Friston beyond the mill in view from the south, but no assessment is offered of any visual effect on views from the mill itself.	The immediate environs of the mill are surrounded by buildings and there would be no potential for any part of the proposed substations to be visible. It would be possible to see at least the upper parts of the substations from the higher windows in the mill but, as noted above, these views do not contribute to the significance of the asset. It is therefore of no relevance to the assessment to attempt to illustrate views in the immediate environs of the mill.
112	5.9.5 The submitted report concludes that the presence of the onshore substations and National Grid substation would have a very limited effect upon the setting of Friston mill. The report concludes that the impact upon the mill would be of negligible magnitude and because the Grade II* building is considered to be of high heritage importance the result would be	No comment

ID	Written Representation	Applicants' Comments
	an adverse effect of minor significance. The applicant indicates that, while the landscape mitigation will provide a small degree of reduction to this harm, it does not affect the initial conclusion. I would agree with this assessment. In planning terms, the identified harm to Friston Mill represents 'less than substantial harm' caused by changes to the setting of the heritage asset, and this harm is at the lower end of the scale.	
6 Conclusion		
113	6.1 In presenting a critique of the heritage aspects of the EA1N and EA2 schemes, it needs to be acknowledged that the onshore elements of both schemes are very similar. Both schemes share an onshore cable route and result in the construction to the north of Friston of a National Grid substation and one or two onshore substations, depending upon which schemes are successful. As a consequence, much of the same heritage material and supporting reports are reproduced as part of both applications.	No comment
114	6.2 Chapter 24 of both Environmental Statements sets out the baseline conditions for the historic environment within and surrounding the onshore development area. To date, the onshore cable route and substation sites has been subject to archaeological desk-based assessment and geophysical survey, which have informed the development of the cable route and the submitted archaeological mitigation strategy. A detailed assessment of the results of the geophysical survey and the identification of a series of archaeological areas requiring further fieldwork are set out in the Environmental Statement. However, throughout all of these documents there is a presumption that these fieldwork elements will be carried out post-consent, but before the commencement of any development work, and not ahead of the DCO decision being made.	No comment

ID	Written Representation	Applicants' Comments
115	6.3 The fact that such fieldwork has not been undertaken by the applicant to date represents a major shortcoming in the assessment of the known and potential archaeological resource of the onshore development area, including the landfall, cable routes and the substation sites, and as such the applications as they currently stand invite the making of a poorly informed decision with regard to the potential impact of the proposed scheme on the buried archaeological resource. By failing to provide the required level of detail, the applicant is failing in their stated duty under paragraph 5.8.10 of NPS EN–1, specifically that they 'should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.'	The Applicants have formed a comprehensive understanding of the baseline historical environment and buried archaeological potential via Historic Environmental Record (HER), aerial photographic and LiDAR data assessment) and the initial interpretation of the archaeological geophysical survey (***Appendix 24.4 East Anglia TWO and East Anglia ONE North Offshore Windfarms Proposed Onshore Cable Corridor and Substation Sites***). This has informed site selection, avoiding and minimising direct and interaction with heritage assets where possible. This has enabled the Applicants to complete a robust historical assessment with expert judgement applied and fulfil the national (NPS-EN-1 & EN-2) and local policy requirements. The Applicants have committed to sampling 5% of the onshore development area. This is being progressed by the Applicants through ongoing consultation with the Council's advisers as part of that process. Combined with the Applicants commitments within the ***Onshore WSI*** (an updated version has been submitted at Deadline 3, document reference 8.5), it is the Applicants' view that potential risks to potentially buried archaeological features will be sufficiently mitigated.
116	6.4 With regard to the identification and assessment of the potential heritage impacts of the proposed schemes, it is clearly acknowledged by the applicant that the construction, operation and decommissioning of the onshore infrastructure will have an impact upon the settings of surrounding heritage assets. There is, however, a fundamental contradiction in the submitted application documents between those sections of the Environmental Statement which clearly identify a detrimental impact on heritage assets which will be caused by the construction, operation and decommissioning of the onshore infrastructure, and the submitted assessment of heritage impacts, which focusses only on the impact of the operational phase of the schemes and does not consider the likely impacts	As noted in previous comments, the Applicants have recognised the need to consider the potential for impacts during construction, operation and decommissioning. However, having considered the location, nature and duration of works during those three phases, the Applicants concluded that it is only in the operational phase that the projects have potential to materially affect the significance of heritage assets due to change in setting. This conclusion was discussed with and accepted by the ETG and has been agreed in SoCG's with both HE (REP1-059) and the Councils (AS-046).

ID	Written Representation	Applicants' Comments
	which are due to be caused by the construction or decommissioning of both schemes' infrastructure.	
117	6.5 The exclusion of the of the construction phase from the heritage impact assessment is particularly concerning, for in many cases the boundaries of the construction area lie in very close proximity to heritage assets, where they will arguably have a much greater impact than some of the later, operational phases of the proposed scheme. Concluding that there will be 'no impact' and dismissing the heritage impacts likely to be caused by the construction phase, which are set out in the preceding paragraphs of their own report, demonstrates a clear failure on the part of the applicant to adequately quantify and assess the heritage impacts across the full duration of the scheme. As a consequence, on the basis of the documents submitted to date it is not possible for an informed decision to be made about the overall heritage impact of the scheme to be made. Again, this is a failure on the part of the applicant to meet their obligations under paragraph 5.8.10 of NPS EN–1.	The Applicants recognise that the boundary of the development area lies close to six Listed Buildings (see row 26 of this table): The potential for construction works to adversely affect these assets has been considered as part of the assessment. In the case of Aldringham Court, impact on heritage significance was a key consideration in the design and location of the cable route to the south of this asset. The final design, developed in consultation with the ETG, has minimised the predicted impact of the projects, now predicted to be of negligible magnitude (paras 127-137 of ***Appendix 24.7*** (APP-519)). Land within the development area immediately adjacent to High House Farm and Little Moor Farm has been included as part of the landscape mitigation plan and the proposed works present no risk of harm to these two Listed Buildings. Land adjacent to Woodside Farm and the church and war memorial at Friston is also included in the development area to allow for landscape mitigation works. The inclusion of land on Church Road and the track leading to Woodside Farm reflects proposed improvements to drainage in this area. Works would involve temporary excavations for sub-surface pipes and, again, there is no reason to predict harm to the Listed Buildings nearby.
118	6.6 No indication of the potential impact of the decommissioning process on heritage assets is presented either. The reason given is that no decision has been made regarding the final decommissioning policy for the onshore infrastructure, but it is stated that 'impacts no greater than those	The Applicants refer to their response in row 25 of this table.

ID	Written Representation	Applicants' Comments
	identified for the construction phase are expected for the decommissioning phase'. This lack of a detailed decommissioning process is a significant omission, and this very cursory assessment of the potential heritage impacts of the decommissioning process is not sufficient to assess the likely heritage impacts of this phase of the scheme.	
119	6.7 Having limited their assessment of the heritage impact of the proposed schemes solely to their operational phases, the applicant identifies that the greatest heritage impact of both proposed schemes is that caused to a group of seven designated heritage assets – two listed at Grade II* and five listed at Grade II – which surround the site of the proposed substations, National Grid substation and supporting infrastructure at Friston.	No comment
120	6.8 Although each of the heritage assets is assessed singly, it should be stressed that these heritage assets do not exist in isolation and are all parts of a significant area of historic landscape which lies to the north of the village of Friston. The submitted report identifies historical connections between Little Moor Farm, a moated site to its west, a small enclosure to its north and nearby High House Farm. All four features represent farmsteads which formed an early hamlet on the edge of Friston Moor, an arrangement which survived into the late 19th century. These connections add to the historical and archaeological interest of the individual heritage assets and their collective identity, which is also linked to the church to the south, to which they are connected by a footpath which follows the line of the parish boundary. This boundary is also the Anglo-Saxon hundredal boundary and, as such, is a feature of some antiquity in its own right. Although the surrounding landscape has evolved over time, it retains its agricultural character and the more modern elements of the landscape do	The Applicants recognise the relationship between the various heritage assets grouped along the southern edge of the former Friston Moor (see assessment of Little Moor Farm and High House Farm in ***Appendix 24.7*** (APP-519)). Further analysis of Friston Moor and the footpath connecting it to Friston from Little Moor Farm is provided in a clarification note (REP1-021).

ID	Written Representation	Applicants' Comments
	not materially detract from the contribution which setting makes to the significance of the heritage assets.	
121	6.9 Specifically, the affected heritage assets are: • The Church of St Mary, Friston (National Heritage List Entry No. 1287864) Grade II* • Friston Post Mill (National Heritage List Entry No. 1215741) Grade II* • Little Moor Farm (National Heritage List Entry No. 1215743) Grade II • High House Farm (National Heritage List Entry No. 1216049) Grade II • Friston House (National Heritage List Entry No. 1216066) Grade II • Woodside Farmhouse (National Heritage List Entry No. 1215744) Grade II • Friston War Memorial (National Heritage List Entry No. 1435814) Grade II	
122	6.10 While I would agree with the list of affected designated heritage assets, I do not agree with the assessment of their settings or the contributions which those settings make to the significance of each of the individual buildings. In my professional opinion, the assessments set out in the submitted reports significantly underestimate the heritage impact of the proposed EA1N and EA2 schemes and undervalue the contribution made by setting to each of these designated heritage assets, resulting in much lower assessments of the adverse heritage impact on each of these individual listed buildings than might otherwise be concluded. In particular, it should be noted that the submitted illustrative viewpoints selected and photomontage visualisations are highly selective and do not include key	The Applicants do not agree with SASES that views from within the church at Friston or from the tower constitute key views that should have been illustrated. SASES does not offer a definition of 'key view' but it is understood by the Applicant to refer to a view that contributes substantively to the heritage significance of an asset, in this case the church at Friston. The windows in the church nave were not designed to afford views out of the building and, when seated within the nave, a congregation will only have views of the sky. Similarly, there are extensive views from the top of the tower (as illustrated in the SASES WRs) but the tower was not

ID	Written Representation	Applicants' Comments
	views, such as that from the tower of Friston church or from within the building, which would enable a better visual impression of the likely impact of the scheme to be presented.	designed to serve as a look-out and the views do not contribute to the significance of this Listed Building.
123	6.11 Significantly, the assessments also demonstrate that the mitigation measures put forward in the proposed Outline Landscape Mitigation Plan effectively do nothing to reduce the heritage impacts on these heritage assets in any meaningful way. In six of the seven instances where harm is identified, the applicant acknowledges that the proposed mitigation planting will be of such negligible effect that even after 15 years it will not have had sufficient effect to reduce the assessment of harm caused to any of the heritage assets. In short, by the applicant's own admission, the proposed mitigation scheme is not fit for purpose and will not reduce the heritage harm.	The Applicants have been careful throughout the impact assessment (***Appendix 24.7*** (APP-519)) not to overstate the potential for the Outline Landscape Management Plan (OLMP) to mitigate adverse impacts resulting from change in the setting of heritage assets. However, as recorded in the assessment, the Applicants consider that there is some degree of mitigation. Given the requirement to seek to minimise adverse impacts, the Applicants consider that the identified heritage benefits, combined with the landscape mitigation also delivered by the OLMP, justifies its delivery. Given the changes to the Projects since the Applications were submitted (most notably changes to the substation footprints and equipment heights) the OLMP has been revised and is presented in the ***Outline Landcape and Ecological Management Strategy*** (OLEMS) (an updated version has been submitted at Deadline 3, document reference 8.7)
124	6.12 The table below sets out a summary of the applicant's assessment of the likely heritage impact of the operational phase of the substations at Friston, together with my own assessments of the likely impacts. Discrepancies between the applicant's assessment and my own are highlighted in red. In my assessments, I consider the potential impact of the construction of the EA1N and/or the EA2 substations and associated infrastructure to be the same. In the case of Woodside Farm, the applicant considers impact of the EA1N substation to be greater than that of the EA2 substation, but I do not agree with this assessment. As can be seen, I conclude that the submitted assessments consistently underplay the	No comment

ID	Written Representation	Applicants' Comments
	contribution made by setting to each of these designated heritage assets, resulting in lower assessments of the adverse heritage impact on each of these individual listed buildings.	

Heritage Asset	Heritage Importance	Applicant's Assessment		My Assessment	
		Magnitude of Impact	Significance of Effect	Magnitude of Impact	Significance of Effect
Church of St Mary	High (II*)	Low	Moderate	High	Major
Friston War Memorial	Medium (II)	Negligible	Minor	Medium	Moderate
Little Moor Farm	Medium (II)	Medium	Moderate	Medium	Moderate
High House Farm	Medium (II)	Low	Minor	Medium	Moderate
Friston House	Medium (II)	Negligible	Minor	Low	Minor
Woodside Farmhouse (EA1N)	Medium (II)	Medium	Moderate	Medium	Moderate
Woodside Farmhouse (EA2)	Medium (II)	Low	Minor	Medium	Moderate
Friston Post Mill	High (II*)	Negligible	Minor	Negligible	Minor

	6.13 As is acknowledged by the applicant, in every case, both with and without mitigation measures in place, the adverse impacts identified constitute 'less than substantial harm' in planning terms. As is set out in Section 2, under existing planning law and policy it is required that these adverse impacts be weighed against the wider benefits of the application and that the greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval (NPS EN-1 para. 5.8.18). Any decision taken will also require that the desirability of preserving the settings of listed buildings should be given 'considerable importance and weight' when the decision-	No comment

ID	Written Representation	Applicants' Comments
	maker carries out the balancing exercise (Barnwell Manor Wind Energy Ltd v East Northants DC, English Heritage, National Trust and SSCLG [2014] EWCA Civ 137, Para. 24).	
	6.14 The submitted DCO application documents focus on the immediate impacts of the proposed EA1N and EA2 schemes, but what has not been considered in any meaningful detail by the applicant is the cumulative impact with other Nationally Significant Infrastructure Projects which may come forward in the future and result in additional development at the proposed Friston National Grid substation and its environs. Such schemes potentially include the National Grid Ventures projects Nautilus and Eurolink, the Five Estuaries windfarm project, the North Falls windfarm project and the National Grid SCD1 and SCD2 projects. The potential impact which future connections to the National Grid substation would have on the interrelated group of heritage assets which surround the site needs to be a material consideration in any decision-making process.	The Applicants refer to their response provided in rows 01-04 of ***Table 2.4 Cumulative Impact***.

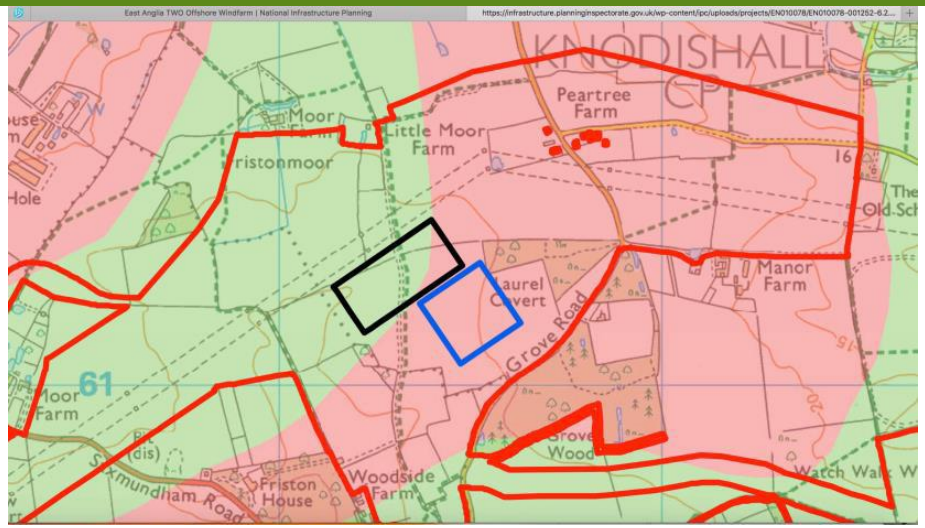
2.5 Land Use

ID	Written Representation	Applicants' Comments
Summary		
01	1. This written representation focuses on the operational impacts on land use by the authorised developments, not the construction impacts. However given the questionable conclusions by Scottish Power in respect of the operational impacts and the absence of a proper cumulative impact assessment, its conclusions in respect of construction impacts are likely to be as equally suspect.	The Applicants disagree with this comment. A cumulative assessment has been completed and is presented in ***section 21.7*** of ***Chapter 21 Land Use*** (APP-069). This considered two construction scenarios: • Scenario 1 - the proposed East Anglia TWO project and proposed East Anglia ONE North project are built simultaneously; and • Scenario 2 - the proposed East Anglia TWO project and the proposed East Anglia ONE North project are constructed sequentially. The worst case (based on the assessment of these two construction scenarios) for each impact is then carried through to the wider CIA which considers those developments that have been screened into the CIA (***section 21.7.2***).
02	2. References to paragraph, page and table numbers in this representation are references to paragraphs, pages and tables in chapter 21 of the Environmental Statement - Land Use.	No comment
03	3. The reference to the "substation complex" means both the Scottish Power infrastructure (the substations for both EA1N and EA2) and the National Grid connection hub.	
04	4. Contrary to Scottish Power's statement that the operational impact of the authorised projects on land use is minor adverse (see table 21.21 on page 64) in fact it is major and contrary to the requirements of EN-1 which at	This has been acknowledged by the Applicants (see response to ExA 1.9.8 in ***Applicants' Responses to Examining Authority's Written Questions Volume 11 - 1.9 Land Use*** (REP1-114)). As described in

ID	Written Representation	Applicants' Comments
	paragraph 5.10.8 states that "*applicants should seek to minimise impact on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5)*."	the ***Land Use Clarification Note*** submitted at Deadline 1 (REP1-022), the local level impact significance is major adverse. This does not materially affect the primary mitigation which will involve the Applicants entering into private agreements with relevant landowners/occupiers within the study area shown in ***Figure 21.1*** (APP-268) regarding compensation, future land use and reinstatement and the end of the life cycles of the Projects. It is not contrary to the requirements of EN-1 to have an impact, EN-1 requires the Applicants to 'seek to minimise impact'. The Applicants have considered land use within the site selection process and will seek, through the iterative design process, to reduce any impacts upon all receptors where possible, including upon the best and most versatile agricultural land.
05	5. This is due to the very high amount of the best and most versatile agricultural land (grade 2 and 3) being lost at the substation complex site. This loss has been exacerbated by: - choosing a sensitive landscape and heritage location where, in an attempt to mitigate the landscape and heritage impacts, a very large and disproportionate amount of the best and most versatile (BMV) land is made over to tree planting/landscaping; - choosing a site with a high surface water flood risk which requires BMV land to be made over to SuDs ponds; - choosing a site which necessitates the construction of a very long and wide operational access road (1700m x 8m) over BMV land.	With regard to best and most versatile (BMV) land and compliance with EN-1 paragraph 5.10.8, the Applicants refer to their response to ExA Q1.9.9 in ***Applicants' Responses to Examining Authority's Written Questions Volume 11 - 1.9 Land Use*** (REP1-114). BMV land is considered in line with the NPS and is reflected by an assignment of high magnitude in ***Table 21.8*** of ***Chapter 21 Land Use*** (APP-069) (***Table 21.8***). This is factored into impact significance. 62.9% of the land within the footprint of the onshore development area is of BMV classification (i.e. Agricultural Land Classification (ALC) Grade 2 and 3)). During the site selection process the Applicants assigned weighting to Agricultural Land Classifications as described in Appendix B of ***Appendix 4.2 RAG Assessment for Onshore Substations Site Selection in the Sizewell Area*** (APP-443). Grade 1 was assigned red, Grade 2 and 3 amber and Grade 4 green which

ID	Written Representation	Applicants' Comments
		reflect the BMV ALC classifications. This formed part of the Applicants' quantitative site selection assessment alongside other site constraints. The amount of BMV land within the entire onshore development area as a percentage of total BMV land in Suffolk is 0.14%. This is negligible in the context of Suffolk's regional farming resource. There is no agricultural land of the highest quality (Grade 1) within the proposed onshore development area. It is the view of the Applicants therefore that the NPS has been complied with. The Applicants also refer to the ***Project Update Note*** (REP2-007) submitted at Deadline 2 regarding the onshore substation footprint reduction. Since submission of the Applications, the Applicants have undertaken extensive engagement with the supply chain regarding the design of the onshore substations and as a result the Applicants can confirm a reduction in the maximum footprint of each onshore substation to 190m x 170m. This represents an approximate 10% reduction in the development footprint of each onshore substation.
06	6. In contrast National Grid and a Scottish Power own land at the existing Bramford substation site which they have chosen not to develop.	The Applicants refer to their response provided to this point in rows 09-11 of ***Table 2.1 Site Selection***.
07	7. Scottish Power has also failed to address the cumulative impact of the further developments that will take place at the substation complex site and in the neighbouring area to accommodate the National Grid Ventures projects Nautilus and Eurolink, the Five Estuaries wind farm project, the North Falls wind farm project and National Grid SCD1 and SCD2 projects which could involve the loss of a further 82ha of agricultural land much of which can be expected to be of the best and most versatile type. This is incompatible with the requirements of EN-1.	The Applicants refer to their response provided to this point in rows 01-04 in ***Table 2.2 Cumulative Impact.*** Please also see the Applicants' response to ExA Written Question 1.6.1 in ***Applicants' Responses to Examining Authority's Written Questions Volume 8*** (REP1-111) regarding additional grid connections and land use.

ID	Written Representation	Applicants' Comments
Quality and Quantity of Agricultural Land Lost		
08	8. The agricultural land at the substation complex site (which includes the land required for mitigation and operational access roads) is grade 2 and 3, which means it is amongst the best and most versatile agricultural land (as categorised by Natural England). Scottish Power accept the land to be of high sensitivity - see paragraph 163 of Chapter 21.	Noted. Please see the Applicants response above in row 04 of this table.
09	9. The Agricultural Land Classification (ACL) is defined as follows: Grade 1 - excellent quality agricultural land with no or very minor limitations. Grade 2 - very good quality agricultural land with minor limitations which affect crop yield, cultivations or harvesting. Subgrade 3a – good quality agricultural land with moderate limitations that affect the choice of crop, timing and type of cultivation/harvesting or level of yield. This land can produce moderate to high yields of a narrow range of crops or moderate yields of a wide range of crops. Subgrade 3b – moderate quality agricultural land with strong limitations that affect the choice of crop, timing and type of cultivation/harvesting or level of yield. This land produces moderate yields of a narrow range of crops, low yields of a wide range of crops and high yields of grass.	
10	10. SPR have submitted a map of Agricultural Land Classification at 6.2.21.3 – Figure 21.3. Below is a detail of this map showing the substation site. The land coloured pink being Grade 2 and the land coloured green being Grade 3. Given that the green land (grade 3) is sited between two areas of Grade 2 land (pink) and also grows the same crops (cereal and beet), it is reasonable to assume that the green land is Grade 3a agricultural land.	

ID	Written Representation	Applicants' Comments
	 It can be seen from this map that EA2 is 100% in grade 2 land, EA1N is approximately 98% in grade 2 land and that the NG substation is approximately 80% grade 3 and 20% grade 2. Any extension of the NG connection hub to the east to accommodate other projects would be 100% grade 2 land.	
11	11. Based on Scottish Power's calculations the total and permanent land take of the of the substation complex is 37.2 hectares (92 acres) This is made up of the following elements set out in table 21.2 on page 8.	

ID	Written Representation	Applicants' Comments
	Scottish Power Infrastructure — square metres EA1N substation — 36100 EA2 substation — 36100 Operational access road (based on 1.6km length) — 13600 Landscaping — 227800 **National Grid Infrastructure** National Grid substation (AIS) — 44950 Pylon footprint — 1600 Cable sealing ends — 10000 Operational access road to sealing ends — 1850 **TOTAL* ha/acres** — **37.2/91.9**	
12	12. The biggest figure by far in the table above is that for landscaping which at 22.78 ha is over 60% of the total land take. Expressing this differently the amount of BMV agricultural land required to mitigate the substation infrastructure (not including the operational access roads) is approximately 180% of the land required for the infrastructure itself.	The Applicants disagree that land take associated with landscaping has been understated. The Applicants have adopted a worst case approach to assessment in line with the Rochdale Envelope. This includes the areas of SuDS basins and loss of land associated with operational access roads. With regard to land fragmentation, the Applicants will enter into private agreements with relevant landowners/occupiers within the study area shown in ***Figure 21.1*** (APP-268) regarding compensation, future land use and reinstatement and the end of the life cycles of the Projects.
13	13. However despite the loss of approaching 100 acres of BMV agricultural land, this figure is almost certainly understated. Landscaping (the term which is used in table 21.2) is not defined. There could well be an additional permanent loss of BMV agricultural land due to: • the areas of the SuDS basins;	

ID	Written Representation	Applicants' Comments
	• the areas that can no longer be efficiently cultivated due to the fragmentation of the land caused by the substation complex; • loss of land at the margins of the operational access roads including the drainage needs of an 8m wide 1700m long operational access road.	
14	14. In addition much the agricultural land to the west of the substation site belongs to the residents of Friston House, Pond House and Moor Farm. If the projects were to be approved each of these residents plans to plant more trees on their agricultural land to screen themselves from the substation complex site. This will result in a further significant loss of agricultural land.	
Magnitude Levels and Impacts		
15	15. Scottish Power has assessed magnitude levels in Table 21.8 Definitions of Magnitude Levels for Land Use Receptors. This states that a "high" magnitude level is "*Permanent loss of over 20 hectares (ha) of the best and most versatile (BMV) agricultural land (grades one, two and three) or more than 60% total regional resource (Natural England 2012a) or full recovery of land would take more than 10 years*."	The Applicants note that the magnitude definition for high does in fact recognise absolute loss of land. High magnitude equates to "*Permanent loss of over 20 hectares (ha) of the best and most versatile (BMV) agricultural land (grades one, two and three) or more than 60% total regional resource (Natural England 2012a) or full recovery of land would take more than 10 years*" (emphasis added). It is therefore not the case that the Applicants' approach means no development would ever cause the loss of a significant percentage of agricultural land. Please also refer to the Applicants' ***Land Use Clarification Note*** submitted at Deadline 1 (REP1-022) which further details the assessment guidance and general approach. This also provides further clarity on the local level impact of permanent land take at the onshore substation site.
16	16. There would appear not to be a clear standard for assessing magnitude impact. However it is submitted that expressing magnitude impact by reference to the entirety of agricultural land in a county is arbitrary, particularly when the threshold is 60% and designed to minimise impacts. On this basis no development would ever cause the loss of a significant percentage of agricultural land. Further this percentage also bears no relationship to the absolute measure where the threshold is 20 ha. We would submit a better approach would be to look at the absolute loss of land and for the purposes of this representation we will accept the thresholds adopted by Scottish Power in table 21.8.	

ID	Written Representation	Applicants' Comments
17	17. Given the sensitivity of the land at the substation complex site is high and the permanent loss of BMV agricultural land is 37.2 ha then the impact is major at the substation complex site. However not only is the impact major it is it is major at an extremely high level given the permanent loss of BMV agricultural land is almost double the threshold, even using Scottish Power's figure for the loss of BMV land which is almost certainly understated.	
18	18. Scottish Power's assessment of the impact is understated in paragraph 163 on page 43. Scottish Power erroneously concludes that the "impact significance is therefore predicted to be moderate at site level of the substations location"	
19	19. Further the Planning Statement summary (document 8.2 page 216) in respect of land use is misleading in respect of permanent operational impacts. Whilst it admits that "the onshore substation location and National Grid substation location land covers agricultural land of grade 2 and grade 3 quality" it then goes on to state "in total, 75.64% of the proposed onshore development area is moderate to poor quality agricultural land." It can only be assumed that this is a reference to the development area within the order limits or at least includes the cable route. The reality is that in relation to permanent operational impacts 100% of the agricultural land is of the best and most versatile grades.	For clarity, this is in reference to the entire onshore development area and is inclusive of the onshore cable route and landfall. The Applicants acknowledge that there will be permanent loss of agricultural land of grade 2 and 3 at the onshore substation location and this has been assessed (***section 21.6.1.1*** of ***Chapter 21 Land Use*** (APP-069). The Applicants would also clarify that there is no agricultural land of the highest quality within the onshore development area. The highest quality land equates to ALC Grade 1.
20	20. The fact that such a misleading statement appears in the Planning Statement makes one question how many other misleading statements there are in this statement and whether this statement could be regarded as reliable.	

ID	Written Representation	Applicants' Comments
Land at Bramford		
21	21. Scottish Power's proposals on behalf of itself and on behalf of National Grid to acquire and use agricultural land at Friston should be considered in the context of Scottish Power's and National Grid's existing land ownership at Bramford.	The Applicants refer to their response provided to this point in rows 09-11 of ***Table 2.1 Site Selection***. The Applicants must work within the current regulatory framework in order to deliver the Project. The NPS (EN-3) for Renewable Energy Infrastructure states at paragraph 2.6.34 that: "*Applicants for consent for offshore wind farms will have to work within the regulatory regime for offshore transmission networks established by Ofgem. Under the regime offshore transmission will be a licensed activity regulated by Ofgem*." National Grid owns the England and Wales electricity transmission network. Part of the assessment in determining grid connection location is the CION Process, which National Grid iESO s under a statutory duty to undertake. The CION process is the mechanism used by National Grid ESO to evaluate the potential options for connecting to the transmission system. ***Section 4.7.5*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) provides an overview of the CION process in respect of the grid connection location. In 2010, Bramford was the most economic and efficient connection point for the East Anglia ONE, East Anglia TWO and East Anglia THREE projects at that time. In 2016 SPR identified the redefined East Anglia TWO and East Anglia ONE North projects as the next projects to be brought forward for development consent. SPR engaged with National Grid in early 2017 to determine connection options for the Projects based on contracted background at that time and reflecting the projects' timescales and reduced capacities. National Grid advised that due to the changing contracted background, connection capacity could be available in the Sizewell / Leiston area.
22	22. Appendix 1 shows a Google Earth image of the Bramford substation site. The bottom half of the image shows the National Grid infrastructure at Bramford which serves Sizewell B and Scottish Power's EA1 windfarm and which will serve a Scottish Power's EA3 windfarm. The top half of the image shows the EA1 substation which is the completed structure to the left and the construction site of the EA3 windfarm. This should be compared to Appendix 4 which is a plan from the DCO application for EA3 in 2015, the relevant document can be found here.	
23	23. Appendix 2 shows details of the title numbers of the land and the registered owners of the land.	
24	24. Appendix 4 shows the location of the EA1 substation, the proposed location of the EA3 substation and also shows a substation location for a future Scottish Power windfarm project.	
25	25. Appendix 3 shows Appendix 2 overlaid on Appendix 1. It is clear from Appendix 3 that both National Grid and Scottish Power already own undeveloped land at Bramford which, judging from the land available and the fact that in 2015 Scottish Power was planning to construct at least one further substation there – see Appendix 4, could be sufficient to accommodate substation for each of EA1N and EA2 and expansion of the existing National Grid infrastructure to serve EA1N and EA2.	

ID	Written Representation	Applicants' Comments
26	26. As is evidenced by a note of a meeting between the Planning Inspectorate and Scottish Power on 6 July 2016 the original intention was that both EA1N and EA2 would connect at Bramford and connection agreements. Under the heading of "Grid connections update" it is recorded that "*The Applicant was previously in a joint venture with Vattenfall and had agreements with National Grid for three projects to connect from the landfall at Bawsdey to Bramford, Suffolk. These were East Anglia ONE (EA1), East Anglia THREE (EA3) and East Anglia FOUR (EA4 - subsequently withdrawn). The grid agreements have now been modified by the Applicant to accommodate EA2 and EA1N*." The note of the meeting is attached at Appendix 5.	The CION process was subsequently triggered and concluded that the most economic and efficient connections for the Projects, while considering environmental and programme implications, would be into the circuits in or around Leiston.
Compliance with Planning Policy		
27	27. EN-1 at paragraph 5.10.8 states that "Applicants should seek to minimise impact on the best and most versatile agricultural land". Scottish Power through defective site selection seems to be seeking to <u>maximise</u> impact on the best and most versatile agricultural land.	The Applicants disagree and refer to their response provided in row 02 of this table.
28	28. By choosing a sensitive landscape and heritage location 22.78 ha of BMV land, over 60% of the total land take, is required in an attempt to mitigate the landscape and heritage impacts. Expressed in another way the amount of BMV agricultural land required to mitigate the substation infrastructure is approximately 180% of the land required for that infrastructure.	
29	29. By selecting a site with a high surface water flood risk more BMV agricultural land has to be made over to two large SuDs ponds.	

ID	Written Representation	Applicants' Comments
30	30. By choosing a site which is difficult to access, a very long and wide operational access road (1700m x 8m) is required which consumes at least another 1.4 ha of BMV agricultural land.	
31	31. Further as noted in the Written Representations concerning the Rochdale Envelope and the draft Development Consent Order the area being proposed for the National Grid connection hub and the Scottish Power substations has not been subject any serious attempt to improve the efficient use of land by good design nor has there been any independent scrutiny of such requirements	
32	32. Given these facts the EA1N and EA2 projects do not comply with the requirements of EN-1. In fact they fly in the face of them.	
33	33. In the context of the proposed use of BMV agricultural land at Friston should be contrasted with the fact that both National Grid and Scottish Power own land at the Bramford substation site which they have chosen not to develop and which could accommodate the substation complex.	
Cumulative Impact		
34	34. Scottish Power has not undertaken a cumulative impact assessment in respect of the additional loss of agricultural land, much of which will be of the best and most versatile grades, in respect of the six other projects which will be brought ashore in the AONB and which will either definitely or almost certainly connect at the National Grid connection hub at Friston.	The Applicants refer to their response provided in rows 01-04 in ***Table 2.2 Cumulative Impact*** with regard to CIA. Please also see the Applicants' response to ExA Written Question 1.6.1 in ***Applicants' Responses to Examining Authority's Written Questions Volume 8*** (REP1-111) regarding additional grid connections and land use.
35	35. We know from the NGV FAQ document, page 5 (May 2020 – Ref.1) that the National Grid connection hub will need to be expanded and this will require 3 acres for each of its Nautilus and Eurolink interconnector projects. It would seem to be a reasonable assumption that a similar amount of land will	

ID	Written Representation	Applicants' Comments
	be required in order to connect each of the Five Estuaries windfarm, the North Falls windfarm, the SCD1 interconnector and the SCD2 interconnector.	
36	36. In addition to the land required in order to connect at the National Grid connection hub, each of those projects will require land for converter stations or substations in the same manner as for the Scottish Power windfarms and the NGV interconnectors. Whilst that land may not be at Friston it will for technical reasons have to be in the vicinity of Friston.	
37	37. The land required for each Scottish Power substation is 3.61 ha. NGV has stated that the land required for each of converter station is 12 acres (May 2019 Briefing Pack, page 4 – Ref.2) which converts to 4.86 ha. It would seem to be a reasonable assumption that a similar amount of land will be required for the substation required for each windfarm and the converter station required for each interconnector. The table below sets out the total amount of land which these projects will require before taking account of the land that will be required to mitigate the landscape and heritage impacts of these projects or the operational access roads which will be required.	

ID	Written Representation	Applicants' Comments

Project	National Grid connection hub expansion(ha)	Substation/convertor station(ha)
NGV Nautilus	1.21	4.86
NGV Eurolink	1.21	4.86
Five Estuaries	1.21	3.61
North Falls	1.21	3.61
SCD1	1.21	4.86
SCD2	1.21	4.86
National Grid connection hub Total	7.28	
Substation/Convertor station Total		26.7
Overall Total		**33.98**

38	38. This figure of 33.98ha is before any account is taken of the land required for landscaping, SUDS ponds, operational access roads etc. Given that Friston according to SPR's site selection exercise is meant to be the least damaging location, one can only assume that the amount of land required for landscape mitigation will be at least as extensive as that required at Friston. As mentioned above the amount of land required for landscaping at Friston is 180% of the land required for the Scottish Power substations and National Grid connection hub – see paragraph 12 above. A somewhat rash assumption could be made that no further landscaping will be required at Friston as a result of the expansion of the National Grid connection hub. However no such assumption can be made in respect of the additional two substations and the four converter stations which will be required for these projects given their size.	

ID	Written Representation	Applicants' Comments
39	39. Accordingly based on the same ratio of land required for landscaping relative to the land required for substations and converter stations (and excluding the expansion of the National Grid connection hub), landscaping will require an additional 48.1 ha of land.	
40	40. Therefore in total these projects will require another 82ha of land in and around the Friston area and this is before the land required for operational access roads. Given the nature of the Friston area one can assume that a large proportion of this land if not the substantial majority will be grade 2 and 3 agricultural land.	
41	41. Therefore in total the siting of a new national grid connection hub at Friston which will involve the location of eight offshore energy projects in or around Friston may well require 119.2ha (approximately 295 acres) of land which given the local geography will almost certainly be agricultural land of which a very high proportion will be the best and most versatile agricultural land.	
42	42. No analysis has been carried out in relation to the environmental stewardship scheme or other relevant matters but clearly there are significant implications given the amount of agricultural land at risk of permanent loss.	

2.6 Substation Design and Rochdale Envelope

ID	Written Representation	Applicants' Comments
The Rochdale Envelope		
01	1. The authorised development in Part 1 of Schedule 1 of the DCO does not fix parameters for either the Applicant's substations or the National Grid substation, describing the works merely as "a new onshore substation at Grove Wood, Friston" and, under the National Grid NSIP, "a new national grid substation to the north west" of the project substation. Article 2 defines the substations by reference to their component parts, not their scale. The parameters are only set to the extent provided for in the Requirements.	No comment The Applicants note the comments made regarding the Rochdale Envelope. The Applicants have submitted a ***Project Update Note for Deadline 3*** (ExA.AS-6.D3.V1) which details reductions to the maximum height and finished ground levels for the onshore substations.
02	2. The DCO requires the certification of the "outline onshore substation design principles statement" and Requirement 12 requires submission of detailed design to accord with those principles but only in respect of the Applicant's substations, not the remainder of the Applicant's infrastructure and not at all in respect of the National Grid substation and related infrastructure. Requirements 12(3), (5), (7) and (9) also set certain broad limitations on scale in respect of the height of the substations and the fenced compound areas of the substations.	
03	3. As framed, the DCOs would give unnecessary and excessive flexibility to the Applicant to develop the substations site. Further the design of the substations and related infrastructure would not be sufficiently or appropriately controlled. The consequence is that significant environmental harm will be caused which in part could be avoided or reduced by imposing further constraints in the DCO and on the way in which the design of the substations and related infrastructure is controlled post-consent.	

ID	Written Representation	Applicants' Comments
04	4. The Applicant has taken a "Rochdale Envelope" approach by setting broad parameters for the substations and related infrastructure. Whilst the principle of this approach is recognised for the purposes of environmental assessment, there is a risk that it can lead to an approach which fails to ensure good design which minimises adverse impacts. The parameters as set in the DCO are excessive and not justified. As further explained in Appendix 2, the size parameters and in particular the proposed height of the substations could be significantly reduced. In the case of the Applicant's substations, Requirement 12(3)(a) sets a maximum building height of 15m and a maximum height for external electrical equipment of 18m. This is unjustified when compared to other examples of similar substations.	The project design envelope has a reasoned maximum extent for a number of key parameters. The final design would lie within the maximum extent of the consent sought. Post consent, the Applicants would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain. Furthermore, the final design of the onshore substation and National Grid substation, including the layout, scale and external appearance, is required to be approved by the relevant planning authority before any work on the substation commences as per Requirement 12 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). The ***Outline Onshore Substation Design Principles Statement*** (APP-585) will be updated at Deadline 4 to include further definition on the maximum visual envelope of buildings and external equipment. As outlined in the ***Project Update Note*** submitted at Deadline 2 (document reference ExA.AS-4.D2.V1), the Applicants have committed to a reduction in the maximum footprint of each onshore substation to 190m x 170m. This represents an approximate 10% reduction in the development footprint of each onshore substation. Further information regarding the onshore substation heights and ground levels has been provided in the ***Project Update Note for Deadline 3*** (ExA.AS-6.D3.V1).
05	5. In respect of the National Grid substation, the parameters in Requirements 12(7) and 12(9) vary significantly depending on whether AIS or GIS technology is used. Thus the AIS substation would be up to 6m in height with a compound area of up to 44,950 sq m, but the GIS substation would be up to 16m in height with a compound area of up to 16,800 sq m.	The Applicants expect that National Grid Ventures will respond in further detail at Deadline 3 regarding this matter.

ID	Written Representation	Applicants' Comments
	There is no proper basis for seeking such great flexibility, and an election could be made between the two alternatives at this stage.	
06	6. A further difficulty which arises from the setting of such broad parameters in the Rochdale Envelope is that the DCO authorises the acquisition of land for the greatest extent of the parameters. Accordingly, the land will be controlled by the Applicant and could be put to use for the project and for the National Grid NSIP. Further, by Article 33, the land will be "operational land" for the purposes of the relevant electricity undertakings. The consequence is that the land would attract permitted development rights under Class B Part 15 of Schedule 2 to the Town and Country Planning (General Permitted Development) Order 2015 which could permit further extensive development within the land identified for development.	Permitted development rights are necessary to enable the maintenance and operation of the transmission assets. These include elements of restricted further works and replacement. The extent of the rights is restricted by development that is not permitted and also by conditions. Further restrictions also potentially apply under the legislation pertaining to permitted development rights which remove permitted development rights in circumstances that these would involve EIA development. Any alterations to works constructed under the DCO would be considered as an alteration to an EIA development that had already been authorised, executed or in the process of being executed and would have to be screened.
07	7. For those reasons, the Applicant should justify the very significant extent of the parameters set in Requirement 12 in respect of both the height and the area of the substation complexes. It does not appear that they can be justified. Permitted development rights should be restricted to ensure that the excessive envelope set by the Applicant does not pave the way for other significant development to come forward without detailed planning approval.	The Applicants refer to their response provided in row 01 of this table.
Downsizing		
08	8. Related to the parameters for the substation is the risk that the projects will be downsized in respect of their generating capacity. In this context it should be noted that the draft DCOs provide for generation capacity to be as low as 100 MW – see definition of Work No. 1 in Schedule 1. As	The final design of the onshore substation and National Grid substation, including the layout, scale and external appearance, is required to be approved by the relevant planning authority before any work on the substations commence as per Requirement 12 of the ***draft DCO*** (an

ID	Written Representation	Applicants' Comments
	explained in Appendix 1, a number of offshore windfarm projects have been materially downsized post consent. However, because of the parameters within the DCO, those changes have not been the subject of any approval. One difficulty which flows from that is the full extent of the parameters for development (e.g. at the substations, but not confined to them) can still be built out, despite the fact that (a) those parameters may no longer be justified and (b) the benefits which are said to outweigh the harm are much reduced. The Applicant should be constrained to deliver a project within a more limited range of output, so that an application for a change to the project would be required if the proposed capacity were to be materially reduced. This would allow matters such as the permitted scale of the onshore development to be considered, rather than permitting the unilateral reduction in the output of the proposal without any constraint on the proposed development.	updated version has been submitted at Deadline 3, document reference 3.1). The Applicants will be required at this stage to demonstrate that capacity of electricity required to be converted and to accommodate the technology at that time has been robustly considered and is economically available from the supply chain.
Substation design		
09	9. Substation design is subject to detailed approval under Requirement 12. The approval for the Applicant's substations must be in accordance with the "outline onshore substation design principles statement". However, those principles are extremely broad in nature and add very little and do not extend to the entirety of the Applicant's infrastructure at the substation site. Given the wide parameters for the substations (see above), further control is needed to ensure that the proposal which comes forward has the least impact possible in terms of the design of all the infrastructure.	The Applicants refer to their response provided above (row 05 of this table).
10	10. The approving authority lacks the expertise to determine whether the best possible proposal has been advanced to minimise the adverse impacts of the proposals. For that reason, the design of the substations and related infrastructure should be the subject of independent design review by industry leading independent power engineering consultants	The Applicants refer to the ***Outline National Grid Substation Design Principles Statement*** (REP1-046) was submitted at Deadline 1. The Applicants submitted a ***Project Update Note*** (REP2-007) at Deadline 2

ID	Written Representation	Applicants' Comments
	against the strict criterion of achieving the lowest possible landscape and other adverse environmental impacts by the best choice and layout of power equipment. Such independent review could be certified prior to the submission of details for approval, and could be secured through an amendment to the design principles statement, or through the imposition of a new Requirement.	and have also submitted a ***Project Update Note for Deadline 3*** (ExA.AS-6.D3.V1).
11	11. Further, there is no justification for excluding the National Grid substation and related infrastructure from the design principles statement. As framed, Requirement 12 does not apply those principles to the National Grid substation and related infrastructure. The same points as above should apply to the National Grid substation and related infrastructure.	An ***Outline National Grid Substation Design Principles Statement*** has been submitted at Deadline 1 (ExA.AS-6.D1.V1). The ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) states that details of the National Grid substation design must be submitted to and approved by the relevant planning authority prior to the commencement of construction. This document sets out the principles which could be included in that submission. Requirement 12 of the ***draft DCO*** relates to the detailed design parameters onshore, and states (emphasis added): "(6) No stage of the national grid substation comprised within Work No. 41 may commence until details of the layout, scale and external appearance of the national grid substation (which accord with the outline national grid substation design principles statement) have been submitted to and approved by the relevant planning authority. Work No. 41 must be carried out in accordance with the approved details. (7) Buildings comprised within the national grid substation must not exceed— (a) where AIS substation arrangement is used, a height of 6 metres above finished ground level; and (b) where GIS substation arrangement is used, a height of 16 metres above finished ground level.

ID	Written Representation	Applicants' Comments
		(8) External electrical equipment comprised within the national grid substation must not exceed a height of 16 metres above finished ground level. (9) The fenced compound area (excluding its accesses) for the national grid substation must not exceed— (a) where AIS substation arrangement is used, 44,950 m^2; and (b) where GIS substation arrangement is used, 16,800 m^2."
12	12. Design matters are considered further in Appendix 2, below.	The Applicants note the comments made in Appendix 2 and refer to the ***Outline National Grid Substation Design Principles Statement*** (REP1-046) submitted at Deadline 1. The Applicants have submitted a ***Project Update Note*** (REP2-007) at Deadline 2 and a ***Project Update Note for Deadline 3*** (ExA.AS-6.D3.V1) regarding updates to the onshore substation designs.
Conclusion		
13	13. The multiple adverse effects of the proposal, the sensitivity of the location, and the inadequacy of the mitigation proposals are considered elsewhere. They all point to the need to take a far more thorough approach to the design of all the infrastructure at this stage. The parameters need to be more tightly drawn. The flexibility to downsize the projects without further approval needs to be limited. The design of the substations their related infrastructure needs to be the subject of far better controls including independent design review by industry leading independent power engineering consultants to ensure that the proposed designs are the least harmful achievable.	The Applicants refer to their responses provided to these points in this table. The Applicants are committed to the design extents and principles set out in Requirement 12 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). As previously described in this table and in the ***Project Update Note*** (REP2-007) submitted at Deadline 2 and the ***Project Update Note for Deadline 3*** (ExA.AS-6.D3.V1), the Applicants will continue to refine the design as appropriate. Post-consent, the Applicants would design the onshore substation to the capacity of electricity required to be converted and to accommodate the technology at that time which is economically available from the supply chain.

2.7 Footpaths

ID	Written Representation	Applicants' Comments
Summary		
01	1. The proposed substations site will necessitate the **permanent** closure of a well-used footpath. leading north from the village of Friston and forming an essential part of a peaceful circular walk from the village. This path is designated as **FP6** on the Local Authority's Definitive Rights of Way map and marked as **E-354/006/0** on SPR's Permanent Stopping Up of Rights of Way Plan Sheet 7 (APP-014) between points S6 and S8.	This is recognised by the Applicants in ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) and in the ***Outline Public Rights of Way*** (PRoW) ***Strategy*** (an updated version has been submitted at Deadline 3, document reference 8.4).
02	2. The Friston substation site is the only site of the eight zones considered, which involves extinguishment of Rights of Way. Although the Red Amber Green Assessment (APP-443/Appendix 4.2 of Volume 3), which includes the Broom Covert site at Option 8, states that a PRoW/National Trail is crossed, this is an error as SPR have identified a private track as a PRoW and no such public right of way exists. (*See Reference 1A: RAG Assessment; 1B: SPR Broom Covert site plan; 1C: Extract from OS Pathfinder map and 1D: Wilfrid George's "Footpath Map around Aldeburgh, Leiston and Thorpeness*). This demonstrates the inaccurate and flawed site selection process adopted by SPR.	The Applicants refer to their response provided in row 01 of ***Table 2.1 Site Selection***.
03	3. **FP6** is the historic Parish Boundary between Friston and Knodishall and also an ancient Hundred Boundary. These matters have not been given proper significance by SPR.	The Applicants have prepared an ***Archaeology and Cultural Heritage Clarification Note*** (REP1-021) which was submitted at Deadline 1 and further considers the historic parish boundary at FP6.
04	4. The creation of the alternative route is only possible post-construction and is proposed within Work No 33 (see Part 1 of Schedule 1 of the dDCO) along with post-construction landscaping and planting. However the existing footpath FP6 cannot be extinguished until the new alternative route has been constructed to the standard expected by the Local Highway	The Applicants are not proposing to keep FP6 (E-354/006/0) open during the main construction works. This footpath may however be temporarily stopped up and diversions created as appropriate during the early stage of construction, to accommodate limited enabling works on site. Please refer to the temporary management measures outlined in the ***Outline***

ID	Written Representation	Applicants' Comments
	Authority. Is it seriously proposed to keep FP6 open during construction and if so how? There is a conflict between the legal position, which requires FP6 to remain open and the practical position whereby it will be virtually impossible for the public to walk through the substation construction site. Due to the constraints of the site, it is not possible to create the new diverted route along Grove Road until the construction is completed and the haul road removed.	***PRoW Strategy*** (APP-581) (an updated version has been submitted at Deadline 3, document reference 8.4).
05	5. During construction a number of diversions from both FP6 and FP17 are shown within the substations site itself. These are shown on SPR's Temporary Stopping Up of Public Rights of Way Plans – Sheet 7 (APP-013) and are also described in the Outline Public Rights of Way Strategy (APP-581) pages 9 and 10. This will mean pedestrians having to walk through a busy construction site, close to the substations themselves, with its known hazards of noise, dust, vibration, smells, falling objects etc. Further the proposed construction process includes pile-driving with noise levels at 118DB, which is painful to the human ear, let alone to dogs. This would raise significant Health & Safety issues over a long construction period, perhaps up to 10 years.	The various measures set out in the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) such as fencing, screening and noise controls will ensure that construction related to disturbance is minimised. The PRoW Strategy will ensure that safety of users of PRoW is always maintained. The Applicants will ensure that the final PRoW Strategy includes details of any fencing required across existing PRoWs, new PRoW diversions or temporary diversions for approval (see LA-15.15 of ***SoCG*** AS-046). With regard to timeframes, the estimated construction period for the onshore substation and National Grid is 30 months and 48 months respectively (***section 6.9*** of ***Chapter 6 Project Description***). Anticipated timeframes for temporary diversions will be finalised and specified in the final PRoW Strategy. The footpaths listed in Schedule 3 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) will be temporarily stopped up and diversions created as appropriate during the early stage of construction.
06	6. In reality it can be expected that FP6 will be closed during construction and the northern side of the village of Friston will therefore effectively cease to exist as an amenity to residents. In consequence people will use their cars to access other places such as Snape Warren SSSI (1.7 miles	As stated in row 04 of this table, FP6 may be temporarily stopped up and diversions created as appropriate during the early stage of construction, to accommodate limited enabling works on site. This will facilitate access to the north of Friston village.

ID	Written Representation	Applicants' Comments
	away) or further afield. This displaces people into a more sensitive location where increased use of footpaths is undesirable.	
07	7. In terms of mitigation during construction, an alternative route to FP6 should be identified to enable people to use the PRoW network in a reasonably safe and enjoyable manner and which does not involve crossing the construction site itself or walking on the road. An alternative may prove difficult to find due to the congested nature of the site. A recent suggestion of providing a field for the exercising of dogs misses the point as people want to go for a proper walk of an hour or so, not just remain in a field near a construction site.	The Applicants have provided detail of the proposed alternative routes for FP6 during construction in the ***Outline PRoW Strategy*** (an updated version has been submitted at Deadline 3, document reference 8.4). The Applicants are engaging with the Councils on all proposed diversions and will continue to engage post-consent to ensure that they are to an acceptable specification prior to their stopping up. Temporary diversions and management arrangements must be detailed within the PRoW Strategy (secured under Requirement 32 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1)) and which must be approved by the relevant planning authority after consultation with the relevant highway authority. For PRoW which will be permanently stopped up, as set out in Article 10 of the draft DCO, the existing PRoW cannot be extinguished until the relevant highway authority confirms that the alternative PRoW has been created to the standard defined in the final PRoW Strategy.
08	8. In terms of mitigation during operation, the proposed alternative route for FP6 runs alongside Grove Road and close to the substations. It will not be possible to mitigate the effect of the presence of the substations with regard to visual impact and noise on users of the new footpath. The visual impact will be particularly severe since the mitigation planting will be ineffective for well over a decade. The current peace and tranquillity experienced on FP6 will be lost in perpetuity.	As described in the Applicants' ***PRoW Clarification Note*** (REP1-049), the Applicants recognise that there will be significant visual effects on users of the local PRoW network to the north of Friston (between Friston and Fristonmoor) and that proposed planting will have limited influence as landscape components/screening features in the early stages of the operational period. However in addition to areas of new woodland planting to mitigate impacts in the long term, the OLMP includes planting substantial lengths of new native hedgerows and the reinstatement of existing gappy hedgerows around the onshore substations. The Applicants have provided an updated OLMP within the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference

ID	Written Representation	Applicants' Comments
		8.7). This meets the Councils' request for mitigation planting along the PRoW at Grove Road. Additionally at the newly aligned route of the permanent PRoW diversion (E-260/017/0), the Applicants have proposed to implement planting early (pre-construction) so to enable chance for that planting to establish and mature earlier in the overall programme. The Applicants' reduction to the onshore substation footprint (see ***Outline Onshore Substation Design Principles Statement*** (APP-585)) submitted at Deadline 1 and the ***Project Update Note*** submitted at Deadline 2 (REP2-007) has facilitated the micrositing of the onshore substations to optimise their positioning relative to the surrounding environment and allows for the retention of an established woodland area (of around 2,700m^2 in area) to the west of the onshore substations and the partial retention of an adjoining area of established hedgerows and scrub which would otherwise have been removed. In doing so, additional visual screening of the onshore substations and National Grid substation is achieved from the outset. In locations where it is possible to achieve early woodland and hedgerow planting this would be implemented early in the construction phase or prior to construction as part of onshore site preparation works. This would ensure these areas would already experience growth of the screening prior to completion of construction and commencement of operation.. It is proposed to establish early planting and reinstatement of gappy hedgerows to the south of the substations, to establish as early as possible, screening between the substation site and Friston. Early planting will also take place to the north of the overhead line near Fristonmoor/Little Moor Farm.

ID	Written Representation	Applicants' Comments
09	9. There are a further **26 Public Rights of Way** throughout the onshore development area, which will be temporarily closed or diverted for unspecified, but likely very lengthy, periods of time.	The number of PRoW affected is set out in ***section 2.1*** of the ***Outline PRoW Strategy*** (an updated version has been submitted at Deadline 3, document reference 8.4). Final timeframes will be set out in the final PRoW Strategy as agreed with the local highway authority. Typically, PRoW along the onshore cable route will be periodically diverted for a short period of time (a number of weeks depending on the length of PRoW being temporarily closed) to allow for the safe construction of the onshore infrastructure (including haul road construction and removal).
10	10. The network of footpaths, bridleways and by-ways through peaceful and unspoilt countryside is a major draw to visitors to the area and also a reason why many people have chosen to re-locate to the area. The significant amount of closures will cause harm to the tourist industry. [Ref 2 shows the network of footpaths affected along the cable route and substation sites]	The Applicants refer to page 20 of the ***PRoW Clarification Note*** (REP1-049) submitted at Deadline 1. Recreational assets are moderately important for local users but individually they are not nationally significant enough to draw tourism visitors. Footpaths, common land and beaches are resilient to change if managed appropriately. Therefore, the sensitivity of these recreational assets is considered to be low (***section 30.6.2.2.3*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078)). Effects on tourism are covered in detail in ***Table 2.11*** of this document.
11	11. Residents of Friston and the Suffolk Coastal area, and especially those in villages, do not tend to have access to sports-centres/gyms and mainly rely on the countryside for recreation and in particular its network of Public Rights of Way. SPR have not properly recognised the importance of the footpath network as a recreational facility in their Development and Planning Statement (APP-579 - Table 6.16 Land Use Policy Compliance).	The impact on recreation and human health is summarised in the Applicants' ***PRoW Clarification Note*** (page 9) (REP1-049) submitted at Deadline 1. This is considered with regard to construction, operation and cumulatively.
12	12. Paragraph 5.10.2 of NPS-EN-1 states: "*The Government's policy is to ensure there is adequate provision of high quality open space (including green infrastructure) and sports and recreation facilities to meet the needs of local communities. Open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in*	It is the Applicants view that, in accordance with the NPS EN-1 requirement to take appropriate mitigation measures, the Applicants have provided effective mitigation via temporary and permanent diversions as described in the ***Outline PRoW Strategy*** (an updated version has been submitted at Deadline 3, document reference 8.4). This

ID	Written Representation	Applicants' Comments
	promoting healthy living. Green infrastructure in particular will also play an increasingly important role in mitigating or adapting to the impacts of climate change."	will be further supported by the proposed landscaping and planting in the OLMP as described in row 08 of this table.
13	13. Paragraph 5.10.24 of NPS-EN-1 states "*Rights of way, National Trails and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The [IPC] should expect applicants to take appropriate mitigation measures to address adverse affects on coastal access, National Trails and other rights of way*." Accordingly the impacts of Scottish Power's proposals, in particular at the substations site, is contrary to policy both during construction and operation and the mitigation proposed is wholly inadequate.	

2.8 Human Health

ID	Written Representation	Applicants' Comments
Summary		
01	1. We wish to bring to the examining authorities attention to a range of health and well-being impacts which we consider have not been given due attention by Scottish Power and which must be acknowledged and more importantly addressed as required by EN-1 and in particular Section 4.13.	Noted.
02	2. A considerable strength of this area is its social fabric which is seriously undermined by the proposals and exacerbated by the cumulative impact of the other projects planned for this area.	
03	3. High levels of anxiety and stress are caused by: - Fear of the unknown and uncertainty – comprehension of the magnitude and scale of the proposals. - Lack of trust in the processes, site selection; lack of community engagement and communication; ability to deliver in a timely and sensitive manner. - The need for robust code(s) of practice for the project execution, monitoring and disputes' procedures. - The proximity of these projects to the social and spiritual hubs of the village of Friston	Uncertainty and anxiety of plans and potential impacts is recognised by the Applicants and has been considered in ***Chapter 27 Human Health*** (APP-075) under 'perception of risk' in ***Table 27.2***. The Applicants have sought to mitigate this through comprehensive public engagement and consultation. Consultation has been undertaken through the informal (i.e. non statutory) and formal pre-application stages, including the formal submission of the Scoping[22] Report (SPR 2017) in November 2017 and the Preliminary Environmental Information Report (PEIR) in February 2019 (SPR 2019)[23]. The Applicants produced a Statement of Community Consultation (SoCC) in March 2018. The SoCC explained how the Applicants intended to consult with local communities on the Projects as required under the Planning Act 2008. It detailed the opportunities available for

[22] ScottishPower Renewables (2017) East Anglia TWO Offshore Windfarm Environmental Impact Assessment Scoping Report.
[23] ScottishPower Renewables (2017) East Anglia TWO Offshore Windfarm PEIR

ID	Written Representation	Applicants' Comments
		local communities to come and meet the Applicants to ask questions and to comment on the plans for the Projects. The SoCC also gave notification of the intention to hold Public Information Days (PIDs) and gave an indication of when these would take place. The Project SoCC (published 6th March 2018) is found in ***Appendix 3.2*** of the ***Consultation Report*** (APP-029). The Applicant undertook statutory consultation of the SOCC as described in ***section 3.4.2*** of the ***Consultation Report***. The SoCC was then publicised in local East Anglian newspapers (Eastern Daily Press, East Anglian Daily Times, Ipswich Star and Fishing News) on two separate occasions and dates as set out in ***section 3.4.3***. The SoCC was later updated to introduce Project developments and an additional phase of consultation, Phase 3.5, in order to engage with local communities (***section 3.5*** of the ***Consultation Report***). With regard to robust code(s) of practice for the project execution and monitoring, the Applicants refer to ***Table 1.1*** of the ***Development Consent and Planning Statement*** (APP-579) which lists all of the certified documents which require to be approved by the Councils and other statutory stakeholders. The Applicants refer to their responses provided in ***Table 2.1*** of this document regarding site selection. The Applicants have followed NPS EN-1, NPS EN-3, NPS EN-5 the Electricity Act 1989 and National Grid's Guidelines on Substation Siting and Design (Horlock Rules) in their site selection process.
04	4. The impacts on human health and well-being are not 'insignificant' and far from 'negligible' for the community, not least those of mature age and facing their final years with major disruption and uncertainty. They undermine the social and economic fabric of the community which is	For clarity, the conclusions reached in ***Chapter 27 Human Health*** (APP-075) are expressed in EIA terms with regard to significance. The Applicants have sought to assess human health impacts in accordance with local strategy (e.g. Suffolk's Joint Health and Wellbeing Strategy)

ID	Written Representation	Applicants' Comments
	contrary to S8 National Planning Policy Framework Government Planning Policy, February 2019 in promoting healthy and safe communities. In addition, we draw attention to the report, 'The state of the environment: health, people and the environment' published by the UK Environment Agency, September 2020.	and best practice (e.g. the use of data from Public Health England to inform the assessment baseline and using the methodology agreed with Public Health England (***section 27.4***)).
05	5. It is quite apparent that great swathes of the DCO Applications have been written by consultants/authors in far off parts with little or no comprehension of or care for the local environment, its characteristics and its fragility. Human issues seem to have limited importance within the examination process and this may account for a sense of complacency. Certainly, what is written comes over as hugely insensitive to the real uncertainties that communities face and the anxiety and stressed caused which has already had a serious impact over the last two years, will continue for the next year and, if consent is granted for the projects, will continue for decades given all the other energy projects which will inevitably connect at or near to Friston and the inadequacy of the mitigation proposed.	
06	6. Further details of the village of Friston, its demographics, housing and facilities are set out in Appendix 1.	
UK Government Planning Policy		
07	7. Protecting the considerable community strengths of this area is integral to meeting the National Planning Policy Framework as presented to Parliament by the Secretary of State for Housing, Communities and Local Government, February 2019 and specifically Section 8: Promoting healthy and safe communities which includes the following objectives.	No comment.

ID	Written Representation	Applicants' Comments
	• Promoting social interaction (strong social fabric), street layouts that allow for easy pedestrian and cycle connections. • Safe and accessible – pedestrian routes and quality public spaces. • Enabling and supporting healthy lifestyles (safe and accessible 'green' infrastructure). • Provision of social, recreational and cultural facilities. • Improving health, social and cultural well-being. • Guard against the unnecessary loss of valued facilities. • Ensuring established shops, facilities and services are able to develop and modernise • Promoting education opportunities. • Public safety. • Access to a network of high-quality open spaces and opportunities for sport and physical activity. • Protecting and enhancing public rights of way and access.	
08	In September 2020, the UK Environment Agency issued an extensive report: 'The state of the environment: health, people and the environment'. This report is relevant since it focuses on health issues to which the Friston and communities along the cable route will be exposed during construction and to a lesser extent at Friston post-construction. It is also relevant in that it highlights the importance of preserving 'green space' as an amenity and presents opportunities for increasing this area's appeal through caring environmental management. Main findings are:	

ID	Written Representation	Applicants' Comments
	• Air pollution is the single biggest environmental threat to health in the UK, shortening tens of thousands of lives each year. • After air pollution, noise causes the second highest pollution-related burden of disease in Europe, and is responsible for more life years lost than lead, ozone or dioxins. • There is emerging evidence of health effects from lower levels of pollution, although these are not currently well understood. • Antimicrobial resistant microbes are becoming more common in the environment due to contamination, meaning infectious illnesses may become harder to treat. • Mental health conditions are increasing – they are the largest single cause of disability in the UK, and can be caused or affected by pollution, flooding and climate change. • There is substantial and growing evidence for the physical and mental health benefits of spending time in the natural environment, but children are engaging less with nature. • Exposure to pollution, and access to the natural environment are not equally distributed across society – people living in deprived areas often have poorer quality environments with less accessible green space. • Equality of access to, and connection with a healthy natural environment would save billions of pounds in healthcare costs and reduced economic activity every year • There are opportunities to improve health through the choices government, regulators, businesses and individuals make in creating and contributing to healthier, greener and more accessible environments.	

ID	Written Representation	Applicants' Comments
Fear of the Unknown		
09	9. There have been no computer-generated images of the overall scale of the infrastructure proposed at the onshore site at Friston. Unless you have visited the Bramford substations near Ipswich and happened to see the construction consolidation site for EA1 at Woodbridge/Martlesham, there will be little comprehension (given an inadequate consultation exercise) of what is going to materialise. Nobody around here has encountered landfall entry points, cable corridors, construction consolidated sites and substations.	As described in the Applicants' ***Consultation Report*** (APP-029), visualisations, 3D models and videos were all used at the PIDS as described in row 03 of this table. As described in ***section 29.5.4.3*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (LVIA) (APP-077), consultations with the LVIA ETG led to the agreement of viewpoint locations for use in the LVIA of the onshore substation and National Grid infrastructure, as listed in ***Table 29.6*** and shown on ***Figure 29.4*** (APP-394). Visual representations of the onshore substation and National Grid substation have been produced, in Figures ***29.13 – 29.26*** (APP-404 – APP-417) which show the location and baseline view panorama from each of the agreed viewpoints.
10	10. And for how long? The DCO suggests a construction period of up to four years, but does that include pre and post construction activity and then how are EA1N and EA2 to be sequenced?	***Section 6.9.1*** of ***Chapter 6 Project Description*** (APP-054) presents the following indications of construction durations for each element of the project (note that this is a worst case for each Project and the final durations and potential for any construction overlap will be determined by the design and construction strategy post-consent): • Onshore Preparation Works: up to 15 months. • Landfall: up to 12 months. • Onshore Cable Route: up to 24 months. • Onshore Substation: up to 30 months. • National Grid Substation: up to 48 months. • National Grid Overhead Line Realignment Works: up to 12 months undertaken within a period of 36 months. • Commissioning and Reinstatement: up to 12 months.

ID	Written Representation	Applicants' Comments
11	11. Much of this will overlap with construction activity for Sizewell C, a 9-12 year project and there are the impacts of the other projects – see written representation concerning cumulative impact.	The Applicants refer to their responses provided in ***Table 2.2 Cumulative Impact***.
Lack of Trust		
12	12. The overriding impression is that the choice of site is driven by miscalculations in Scottish Power's original applications (see Written Representation concerning site selection), speed and financial expediency on the part of the Scottish Powers rather than any innate concern for meeting the Government's climate change policies.	The Applicants refer to their responses provided in ***Table 2.1 Site Selection***.
13	13. The Scottish Power talks about the importance of communication as a means of mitigation but has done little to address local issues. For example, the last contact with Friston Parish Council was in July 2019 when substantial concerns were identified but have not been addressed in the DCO; flood risk was a key component of that - see Written Representation concerning flood risk.	The Applicants' held more than 42 events in the local area during the pre-application consultation and feedback from these resulted in a number of changes to the submission which were publicised on the SPRwebsite. The Applicants produced a video update[24] for the Projects resulting from the phase 4 consultation which has continued to be refined during the examination process. This consultation will continue prior to, and during construction, when SPR will hold information events in Friston and other villages to explain how we will manage particular concerns, such as flooding, traffic management and other aspects of the construction process. These will also be outlined in the CoCP, which will be published along with the other final documents for people to refer to. A community liaison officer or officers will also be allocated to work alongside the construction teams, to help local communities with any concerns or issues that might arise.

[24] https://www.scottishpowerrenewables.com/pages/developing_our_plans.aspx

ID	Written Representation	Applicants' Comments
14	14. This lack of engagement spills over into a lack of trust in Scottish Power's ability to deliver the projects, if approved, in a timely and sensitive manner.	The East Anglia ONE Project commenced construction in 2017 and has been completed in line with the predicted timelines and during a pandemic. This project has a 37km cable route and some 22 parishes that were directly affected. SPR held events in these villages post consent and prior to construction, and then again during construction, to ensure that people were informed at every step of the way. For example, concerns over flooding were expressed at the Bramford site and our construction team spent time explaining how the drainage system on the site would work, with those who were most concerned. Two community liaison officers were also employed to manage any issues that might arise. In addition, they supported skills events at local schools and colleges and outreach events with the construction and archaeology teams. Where people had particular concerns, such as at HDD sites, SPR asked its specialist contractors to attend information events to demonstrate why these methods were being employed to safeguard sensitive areas.
15	15. There should be fewer 'subject to consent' actions GIVE EXAMPLES and these should be formally documented, monitored and enforced.	For clarity, the key parameters of the Rochdale envelope for the project are mandated by the requirements set out in the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). Full details of the methodologies, management and additional mitigation measures are provided in the certified documentation and secured by the associated requirements of the ***draft DCO***.
16	16. The Code of Construction Practice which is to be approved by the local authorities should involve consultation with Friston Parish Council so that the community's issues can be properly addressed – see Written Representations on construction and the draft development consent order.	The Applicants will respond to SASES' comments relating to the DCO at Deadline 4. ***Section 4*** of the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) provides further information on local community liaison.

ID	Written Representation	Applicants' Comments
		The Applicants will ensure effective and open communication with local residents and businesses that may be affected by the construction works. Communications will be co-ordinated on site by a designated member of the construction management team. A proactive public relations campaign will be maintained, keeping local residents informed of the type and timing of works involved, paying particular attention to activities which may occur in close proximity to receptors. A combination of communication channels, for example information boards and parish council meetings, will be employed to keep local residents informed. A designated local community liaison officer will respond to any public concerns, queries or complaints in a professional and diligent manner as set out by a project community and public relations procedure which will be submitted for comment to the relevant planning authority. Parish Councils in the relevant area will be contacted (in writing) in advance of the proposed works and ahead of key milestones. This information will include indicative details for timetable of works, a schedule of working hours, the extent of the works, and a contact name, address and telephone number in case of complaint or query. Enquiries will be dealt with in an expedient and courteous manner. Any complaints will be logged, investigated and, where appropriate, rectifying action will be taken. .
Air Qualiy		
17	17. We remain concerned at the potential impacts of traffic emissions along the A12 corridor particularly at known AQMBs at Stratford St Andrew and Woodbridge noticing increasing traffic volumes since the partial relaxation of the Covid-19 lockdown. These are certain to increase with the overlap with Sizewell C construction traffic.	Impacts of traffic generated by the Projects on the A12 were considered in ***Chapter 19 Air Quality*** (APP-067) and were found to have an insignificant impact on air quality. The cumulative impact with Sizewell C was assessed by Sizewell C as part of its DCO application documentation and the Applicants have also submitted a ***Clarification***

ID	Written Representation	Applicants' Comments
18	18. The cumulative effect of traffic and machinery emissions along the cable route and at construction consolidated sites all of which pass close to residential areas, care homes and a school.	***Note*** (REP2-009) concerning cumulative traffic and transport impacts with Sizewell C (see ***section 4*** for air quality) .
19	19. These apply also to the substation site at Friston.	There are few locations along the onshore cable corridor where there is an interaction with roads predicted to experience increases in traffic flows as a result of the Projects. Where dispersion modelling of road traffic impacts at receptors was undertaken, total predicted concentrations were 'well below', i.e. less than 75% of, the relevant air quality objectives (***section 19.4.1.1.3*** of ***Chapter 19 Air Quality***). This is largely due to the low background pollutant concentrations in the area, given its rural nature. Works undertaken along the cable route would be carried out in a sequential manner, and therefore plant would not be working in the vicinity of receptors continually for the duration of the construction period. Furthermore, most works undertaken for the onshore cable route and at the substation site at Friston would be carried out for a 12-hour working day, with some activities undertaken outside of these hours where required. Given this, and that the pollutant concentrations across the study area are 'well below' the air quality Objectives, it is considered unlikely that significant impacts would occur at receptors in relation to annual mean concentrations. Control measures will be applied to Non-Road Mobile Machinery, as specified in the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1), to minimise emissions from these plant insofar as possible. Measures to control dust are also detailed in the ***Outline CoCP*** and will be agreed with the Local Authorities prior to commencement of works. As stated in the introduction in this document, the Applicants will respond to SASES' WRs concerning Traffic and Transport at Deadline 4.
20	20. The above applies equally to dust. It is an exceptionally dry area and subject to high winds. These have become more prevalent and in Summer 2020 led to dust storms which drew protests to landowners, local authorities and the Environment Agency.	
21	21. See in greater detail Written Representations concerning Traffic and Transport and Construction.	

ID	Written Representation	Applicants' Comments
Flood Risk		
22	22. This is set out in greater detail in the Written Representation in respect of Flood Risk.	The Applicants refer to their responses in ***Table 2.3 Flood Risk***.
Landscape Footpaths and Land Use		
23	23. There is a serious loss of amenity and of high quality open space as result of landscape damage, permanent and temporary diversions of footpaths and the large tracts of land which will be used for the development of the projects and proposed "mitigation" – see Written Representations in respect of Landscape, Footpaths and Land Use.	The Applicants refer to their responses in ***Table 2.7 Footpaths*** and ***Table 2.5 Land Use*** regarding PRoW and land use respectively. The Applicants will respond to SASES comments on landscape at Deadline 4.
Ecology and Onshore Ornithology		
24	24. The natural environment and local ecology is a key amenity. It is an important factor in people choosing to live in this area and the acknowledged damage to it will reduce people's quality of life and wellbeing – see Written Representation concerning Ecology.	The Applicants refer to their responses in ***Table 2.9 Ecology***.
Archaeology and Cultural Heritage		
25	25. The listed buildings in and around the village of Friston hold great value for the community and the Parish Church in particular is a key part of community life not only through its spiritual contribution but the many events which take place throughout the year which are related to the church including Christmas festivities, the Village Fete, the annual "Classics on the Green" fundraising event, which is attended by many hundreds of people, the annual Open Gardens fundraising event amongst others. These factors are specifically acknowledged in EN-1 paragraph 5.8.12 and 5.8.13. The prolonged construction period and operational	The Applicants refer to their responses in ***Table 2.4 Cultural Heritage***.

ID	Written Representation	Applicants' Comments
	impacts of these projects will cast a long shadow - see Written Representations concerning Cultural Heritage.	
Noise		
26	26. Scottish Power completely misunderstands the quietude of the locality and the impact on residents – see Written Representations concerning Noise.	As stated in the introduction in this document, the Applicants will respond to SASES' comments on noise at Deadline 4.
Traffic and Transport		
27	27. There are major concerns at traffic volumes, emissions, noise but most of all road safety – see Written Representation concerning Traffic and Transport.	As stated in the introduction in this document, the Applicants will respond to SASES' comments on traffic and transport at Deadline 4.
Safety		
28	28. The projects will involve a significant safety risk to the community – see Written Representations concerning Safety.	The Applicants will respond to SASES' comments regarding safety at Deadline 4.
Proximity to the Village Community of Friston		
29	29. All the concerns raised in the above are magnified by the site being just 250 metres away from the social and spiritual hub of the village. It is just two minutes' walk away!	Noted.
30	30. The worst of the cumulative effects are borne during the extended construction phases when the works extend down to Church Road – see Written Representations concerning Construction.	The Applicants refer to their responses in ***Tables 2.12*** and ***2.13*** regarding construction of the substation site and onshore cable route respectively.
31	31. But there will be a legacy of alterations to the character of the area which are unknown	Significant and localised effects (within 1km of the onshore substation and National Grid substation) on the character of the landscape are predicted for the Ancient Estate Claylands and Estate Sandlands

ID	Written Representation	Applicants' Comments
		Landscape Character Types. The Applicants have sought to mitigate these impacts via effective screening and planting as described in the updated OLMP General Arrangement (Figure 3 of the ***OLEMS***) submitted to Examination at Deadline 3. A full response by the Applicants to landscape issues will be submitted at Deadline 4.
32	32. Consequently, lives have already been damaged by individuals' and families' concerns for the future and the high levels of anxiety namely: a. Those whose homes face directly the development site and have been carefully maintained and refurbished to complement the rural landscape. b. The intrusion of increased traffic flows through the narrow lanes of the village; not just contractors' vehicles, but those seeking alternative routes to avoid delays and congestion elsewhere and these in turn cause safety fears. c. Restrictions on ability to walk around the village, compounded by the closure of footpaths restricts physical activity, social interaction and wellbeing. d. Potential for crime drawn to construction sites.	a) Through further iteration of the project design and mitigation potential, the Applicants will seek to reduce effects of the projects where possible. b) The Applicants will respond to SASES' traffic and transport comments at Deadline 4. c) The Applicants refer to their responses regarding footpaths in ***Table 2.7*** of this document. d) The Applicants are not aware of any evidence presented by SASES which suggests that crime is drawn to construction sites. Adequate security will be provided by contractors working on behalf of the Applicant to protect the public and staff, prevent theft from or damage to the works, and prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site activity and appropriate security measures shall be implemented. Further details on site security measures will be provided in the final CoCP (***section 3.5*** of ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.4)
33	33. Future of the Village Green – privately owned and leased on short term of seven years to the Parish Council. This has been extended to ten years to allow for the installation of new play equipment. It is the recreational hub of the village with its own beacon, netball and soccer facilities for the	Noted.

ID	Written Representation	Applicants' Comments
	young. It provides temporary parking for events. The lack of security of tenure is exacerbated by concerns for the future of the village.	
34	34. There are fears that the proposals and cumulative effects may damage the viability of The Old Chequers public house, a key social hub within the village and popular with visitors.	Noted.
Impact on Village Sustainability		
35	35. Demand for people to wish to live in the village. Threat to property values already suffered by those facing the site. The village needs a regular flow of younger new residents to help support its institutions.	Noted.
36	36. The village hall is integral to the social life of the village being used for village meetings and societies - book club; fitness classes; Baptist Youth Club; Parish Council and Parochial Church Council meetings; weddings and funerals; concerts and performances and whose facilities support other community events, namely those of the Church.	Noted. The Projects will not impact on the village hall and its services or on the pastoral care or outreach services offered by the Church.
37	37. After several desperate years the Church has become self-supporting through its pastoral care and outreach to the community which extends outside the village.to the whole of East Suffolk.	
38	38. The Old Chequers public house at the centre of the village is currently well managed by the landlords and valued by the village and attracts necessary visitors for its hospitality and product range. Its facilities and offering complement and benefit village events and contributes to the economic sustainability of the village.	Noted.
39	39. Any of the above are serious issues impacting on people's health and mental wellbeing, albeit to varying degrees but certainly not negligible or insignificant and not temporary least of all when assessed cumulatively.	The Applicants refer to the responses provided above.

ID	Written Representation	Applicants' Comments
40	40. They also adversely affect morale and commitment which can destroy the social fabric of a community.	
Potential for Mitigation		
41	41. To what extent can measures for compensation and mitigation address these issues? These are not temporary but potentially everlasting.	The Applicants have committed to a Community Fund, which will provide funding for relevant community local projects and good causes.
42	42. Addressing human health – anxiety giving rise to tensions and friction; loss of recreational facilities especially walking and cycling routes. An ageing and potentially more isolated community subject to increasing and extended period of noise, pollution.	The Applicants refer to their responses provided in ***Table 2.7*** of this document with regards to PRoW used by walkers and cyclists. Responses have also been provided in ***Tables 2.12*** and ***2.13*** of this document regarding construction impacts relating to noise and pollution.
43	43. Parish Nurse Scheme shared with adjoining villages?	The Applicants would request further clarity on this point from SASES.
44	44. Accessibility to and support for social transport schemes (Coastal Accessible Transport Services).	The Applicants refer to their response in row 41 regarding the commitment to a community fund for local projects and good causes.
Safety		
45	45. Village traffic plan to control/accommodate increase in volumes	Commitments by the Applicants to managing traffic through the village of Friston are secured in the ***Outline Construction Traffic Management Plan*** (OCTMP) (an updated version has been submitted at Deadline 3, document reference 8.9). ***Section 4*** of the ***OCTMP*** covers the provisions for Monitoring and Enforcement. The final CTMP will be produced post-consent, prior to commencement of the onshore construction of the proposed project and will be in line with the ***OCTMP*** as required by the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). Once contractors have been appointed, the final CTMP measures would be approved by the relevant highway
46	46. Speed control along Aldeburgh-Saxmundham Road and by roads. But how can these be executed and enforced? The lanes will be exploited by drivers seeking short-cuts?	

ID	Written Representation	Applicants' Comments
		authority in consultation with the relevant planning authority prior to the commencement of onshore works.
47	47. Provision of new and additional public parking area(s).	The Applicants have committed to a Community Fund, which will provide funding for relevant community local projects and good causes. This will be in place for the operational life of the Projects.
Preserving community life:		
48	48. Protection of Church Road as access to properties, village hall and church. Protecting the peace and tranquillity within the village, especially the Church given its responsibilities.	As described in ***section 3.2*** of the ***OCTMP***, due to the width of Church Road, in order to maintain a safe separation between the constructions works and travelling public, traffic management measures may be required which would be developed prior to construction and approved by the local highway authority.
49	49. Refurbishment of the village hall.	The Applicants have committed to a Community Fund, which will provide funding for relevant community local projects and good causes. This will be in place for the operational life of the Projects.
Construction Period to include other projects in the pipeline and Sizewell C:		
50	50. Construction Code of Conduct to address construction programme and sequencing.	The assessments in Chapters 18-27 and 29-30 are based on an initial high-level indicative programme which was developed for the ES. Indications of durations for activities are presented below for the purposes of the EIA. The final durations will be determined by the design and construction strategy post-consent. The final construction programme and sequencing will be provided in the final CoCP post-consent.

ID	Written Representation	Applicants' Comments
51	51. Responsibilities of Developers and Contractors – planning, control and monitoring; disputes procedures to include allocating responsibility and accountability for arbitration, resolution and implementation.	There matters are all dealt with in the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) and associated certified documents.
52	52. Defined village maintenance programme to include pavements, footpaths, ditches and hedgerows.	The Applicants have committed to a Community Fund, which will provide funding for relevant community local projects and good causes. This will be in place for the operational life of the Projects.
53	53. The sole mitigation offered by Scottish Power – planting trees as screening which even if they grow will take at least fifteen years to mature and a replacement circular footpath around the industrial site are just insulting and take no consideration of the needs of the village.	

2.9 Ecology

ID	Written Representation	Applicants' Comments
Summary		
01	1. The proposals result in the permanent removal of approx. 30 acres of wildlife habitat across the substation site. Although mostly arable farmland, the site includes copses, pits, ditches and hedgerows, all of which support wildlife, including bats and badgers. Hares, rabbits, birds and insects are all common in the arable farmland.	A number of surveys have been undertaken to inform the baseline environment which has ensured a robust assessment of potential impacts on designated sites, habitats and species that were agreed with the Councils and NE to be scoped into the Project assessment. All habitats which support legally protected and notable species within the substation locations have been committed, within the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7), to be reinstated as far as possible, or replanted where reinstatement cannot be undertaken (see ***Table 6.2*** of the ***OLEMS***). This includes standing watercourses and hedgerows mentioned in the comment. Additional habitat is being created as part of the OLMP. This includes the replanting of hedgerows along the cable route using species of local origin, improving the quality of species-poor hedgerows, plus the creation of new areas of native woodland, species-rich hedgerow and species-rich and wet grassland at the substation site. Note the OLMP has been updated and re-submitted at Deadline 3 within the ***OLEMS***. The Applicants also refer to the ***Ecological Enhancement Clarification Note*** (REP1-035) submitted at Deadline 1. This presents information demonstrating that no net loss of biodiversity will result from the Projects, and for some of their elements the Projects will provide notable opportunities for ecological enhancement. In particular, only 15 hedgerow units will be lost, while 512 units will be created and a further 8 units will be enhanced by the Projects.

ID	Written Representation	Applicants' Comments
02	2. Grove Wood is being offered as mitigation habitat. It is already a Local Wildlife Site and Ancient Woodland, but critically Felling Licences have been granted by the Forestry Commission in early 2020 (Annex 1 – felling licences). This will see the wood subject to significant tree removal and coppicing. Both these issues point to Grove Wood not being considered as adequate mitigation habitat. (Annex 2 – photo following felling May 2020)	Following public consultation undertaken in October 2018, a commitment was made by the Applicants to retain Grove Wood to address public concerns around the removal of this woodland. The retention of Grove Wood is not considered as mitigation for the purposes of reducing adverse impacts within the Environmental Statement (ES), so any activities being undertaken within the woodland currently have no bearing on the findings presented in ***Chapter 22 Onshore Ecology*** (APP-070).
03	3. The following protected species are recorded by SPR as being present on the substation site: badgers (4 setts); 15 skylarks; barn owls (1 pair); 5 species of bat (*common pipistrelle, soprano pipistrelle, serotine, nyctalus noctual* and the rare *barbastelle*)	This is a correct representation of the results presented in ***Chapter 22 Onshore Ecology*** (APP-070). In addition, great crested newt has been recorded within three water bodies within 250m of the substation locations. The Applicants have committed to a number of measures that will mitigate impacts on onshore ecology receptors. These are described in ***Table 22.4*** of ***Chapter 22 Onshore Ecology*** (APP-070) and outlined specifically in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). Requirement 21 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) states that an Ecological Management Plan (EMP) (which will include an SPA Crossing Method Statement and Breeding Bird Protection Plan (BBPP)) must be submitted to and approved by the relevant planning authority in consultation with the relevant statutory nature conservation body (SNCB), before any onshore works can commence. The EMP must accord with the ***OLEMS***.

ID	Written Representation	Applicants' Comments
04	4. During the lengthy construction period all types of wildlife along the cable route will be disrupted and/or displaced. SPR have not yet undertaken to re-instate all features along the cable route making it unlikely that wildlife will return in the same way. SPR recognise that the magnitude of effect is high.	The potential disruption or displacement for all onshore ecological receptors recorded within the survey area is detailed within ***Chapter 22 Onshore Ecology*** (APP-070). The magnitude of effect presented in ***Table 22.26*** of ***Chapter 22 Onshore Ecology*** varies from 'low' to 'high' depending on the onshore ecological receptor. For all receptors (with the exception of short-term impacts on bats), following the implementation of mitigation measures the residual impacts are at most of minor adverse significance, which is not significant in EIA terms. Impacts to bats are predicted to be moderate adverse in the short term, until replanted hedgerows mature (typically 3-7 years), when the impact magnitude is predicted to reduce to minor adverse also. Where practicable, hazel hurdles or similar will be used to temporarily maintain links to hedgerow gaps to enable foraging, maintain commuting routes and encourage insects as a food source. The Applicants are unclear what SASES' comment is referring to with respect to reinstatement. The Applicants include mitigation for all affected habitats within the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7), including reinstatement or replanting of all woodland, hedgerows and watercourse beds and banks following the completion of construction (***sections 5.2 – 5.6***).
05	5. The onshore cable route crosses the Sandlings SPA and SPR have not committed to either HDD or open-cut crossing techniques, both of which will impact in different ways on this habitat. If HDD is chosen then the works will be undertaken over a two-year period, which will be very disruptive.	As outlined within ***Chapter 22 Onshore Ecology*** (APP-070) and ***Chapter 23 Onshore Ornithology*** (APP-071), a trenchless technique, if selected as the preferred method for crossing the Sandlings SPA, will take place for 6 months of the year (see ***Table 23.4***) over two years (i.e. one year of works in total), with no works taking place within the breeding season for selected target species. Overviews of both open trench and

ID	Written Representation	Applicants' Comments
		trenchless techniques are provided in the ***Outline SPA Crossing Method Statement*** (REP1-043) submitted at Deadline 1.
06	6. The permanent presence of the underground cables will prevent re-instatement of trees for a width of 12M along the route. This will further impact on wildlife returning to the area.	***Section 3.5.10*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7) sets out the restrictions for tree planting in the vicinity of the onshore cables during reinstatement. This includes planting of hedgerow species only above the cable, with canopy species planted at least 6m from the location of buried cables. The hedgerow reinstatement approach outlined in ***section 5.3.3.3*** of the ***OLEMS*** is considered overall to improve the quality and connectivity of the hedgerows, especially in areas where the hedgerows are defunct or species-poor prior to removal. The vast majority of hedgerows to be removed to facilitate construction of the Projects are species-poor (67 of 76).
07	7. The landfall site has a unique character and provides a habitat for many species of birds (including breeding sand martins and migrating kittiwakes) reptiles, maritime plants etc. Although HDD drilling is proposed in this location, no assessment has been made by SPR of the potential for disturbance to wildlife and vegetation by this method.	An assessment of the potential impacts of trenchless technique works at landfall is provided in ***Chapter 22 Onshore Ecology*** (APP-070) and ***Chapter 23 Onshore Ornithology*** (APP-071). Trenchless techniques have been proposed at this location to minimise impacts on a range of environmental receptors as far as possible. Impacts arising from works at the landfall are assessed in ***Chapter 22 Onshore Ecology*** and ***Chapter 23 Onshore Ornithology*** to be minor adverse for all receptors. Further detail on how the infrastructure will be constructed at landfall is provided in the ***Outline Landfall Construction Method Statement*** (REP1-042) submitted at Deadline 1.
08	8. Paragraph 58 of SPR's Chapter 22 6.1.8 Onshore Ecology (APP-070) states that 15.2% of the onshore development area was inaccessible during the survey periods and will be subject to survey post-consent. This	***Section 22.4.2.1*** of ***Chapter 22 Onshore Ecology*** (APP-070) provides a transparent evaluation of the limitations in the data. It is typical for projects of this scale to have some field survey data gaps, as the Applicants are reliant on landowner permission to collect full survey data.

ID	Written Representation	Applicants' Comments
	is unacceptable as important wildlife may well have been missed and not recorded.	As outlined in ***section 22.4.2.1***, where areas were not accessible, an assessment of the habitat / likelihood of species being present has been made using the findings from the 2018 Extended Phase 1 Habitat Survey. This informed the impact assessment and the proposed mitigation, thus ensuring that these unsurveyed areas are considered within the assessment. The absence of data from these areas is therefore immaterial to the robust assessment presented in ***Chapter 22 Onshore Ecology***.
09	9. SPR do not commit to any enhancement of habitats and only state at paragraph 241 (APP-070) that "following the construction phase, habitats will be fully reinstated as far as possible" (emphasis added). A greater commitment to habitat enhancement and re-instatement is required.	A commitment to enhancement of a number of different habitats is set out within the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). This includes the replanting of hedgerow along the cable route using species of local origin, improving the quality of species-poor hedgerows, plus the creation of new areas of native woodland, species-rich hedgerow and species-rich and wet grassland at the substation locations. Note the OLMP has been updated and re-submitted within the ***OLEMS*** at Deadline 3. The Applicants also refer to the ***Ecological Enhancement Clarification Note*** (REP1-035) submitted at Deadline 1. This presents information demonstrating that no net loss of biodiversity will result from the Projects, and for some of their elements the Projects will provide notable opportunities for ecological enhancement.
10	10. There are no further details regarding re-instatement in the Outline Landscape & Ecological Management Strategy (APP-584) and no commitment to specific mitigation to benefit individual species.	See the Applicants' response in row 09 above.

ID	Written Representation	Applicants' Comments
11	11. No botanical survey has been carried out in the onshore development area. Specifically rare lichens are known to exist within the wood adjacent to Aldringham Court, where trees are proposed to be felled.	A thorough data gathering process was undertaken to inform the baseline environment used in the Ecological Impact Assessment (EcIA) presented in ***section 22.4.2*** of ***Chapter 22 Onshore Ecology*** (APP-070). This included a Suffolk Biodiversity Information Service search for protected species / habitat records, a 2018 Extended Phase 1 Habitat Survey (and 2019 survey addendum), consultation held with NE, Suffolk Wildlife Trust (SWT), East Suffolk Council and SCC (as well as others) and the public. Rare flora species requiring further consideration were not identified at any point in this process. This includes the species being referred to in this comment.
12	12. Given the extent and complexity of the total onshore works, the appointment of one Environmental Clerk of Works is insufficient to monitor the many species under threat.	The Applicants disagree with this comment. As set out in ***section 6.4.3*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7), the Ecological Clerks of Works (different to an Environmental Clerk of Works) is responsible for the commitments made in the EMP and BBPP, produced post-consent based on the ***OLEMS***. If other or additional ecological specialists are required to support them during their role, for example to undertake specialist surveys to deliver specialist mitigation (such as badger sett closure), these additional specialists will be appointed. Similarly, for mitigation programmes which require a more intensive level of input (for example great crested newt trapping), they will also be able to bring in other ecologists to support them.
13	13. Notably the following, very varied, UK Habitats of Principal Importance are present within the onshore development area: Ancient woodland; Lowland dry acid grassland; Lowland heathland; Deciduous woodland; Traditional orchards and Wood pasture and parkland.	An Extended Phase 1 Habitat Survey, and additional Phase 1 addendum (APP-503/APP-504), were undertaken in April 2018 and March 2019 respectively (i.e. within the optimal survey season) to inform the baseline used within the assessment presented in ***Chapter 22 Onshore Ecology*** (APP-070). In addition, the UK Habitats of Principal Importance (UKHPI)

ID	Written Representation	Applicants' Comments
		mapping dataset held by JNCC was reviewed to identify UKHPI within the onshore development area. The surveys and the JNCC mapping dataset together identified that the following UKHPI are present within the onshore development area: Lowland heath, deciduous woodland, and traditional orchards. Ancient woodland, lowland acid grassland or wood pasture and parkland have not been recorded within the onshore development area. Standing water and hedgerows, both UKHPI, are also found within the onshore development area, as detailed in ***Chapter 22 Onshore Ecology***.
14	14. EN1 deals with Biodiversity and geological conservation at 5.3 and in relation to SPR's proposals, the following have not been fully complied with:- 5.3.3 The Environmental Statement should clearly set out any effects on protected species and on habitats and on other species identified as being of principle importance for the conservation of biodiversity. SPR have not given due significance to badgers, bats, water voles, otters and several species of Red List birds as protected species, nor to invertebrates and reptiles, which are of importance in the onshore development area.	The Applicants do not agree with this comment. A full and comprehensive Ecological Impact Assessment (EcIA) has been undertaken for the project and is presented in ***Chapter 22 Onshore Ecology*** (APP-070) and ***Chapter 23 Onshore Ornithology*** (APP-071). Badgers (***section 22.6.1.8***), bats (***section 22.6.1.9***), reptiles (***section 22.6.1.11***) and red list bird species (***section 23.6.3.1***) are all considered within these chapters, whilst water voles and otters (***section 22.5.3.4***) and invertebrates (***section 22.5.3.8***) are also considered, but were scoped out at an early stage following detailed surveys (***see Appendix 22.5*** (APP-506)) which confirmed that these receptors are unlikely to be present or unlikely to require further consideration within the assessment. The Applicants have since agreed with the EA to conduct pre-construction surveys which include water vole and otter (Agreement Statement EA-301 in ***Statement of Common Ground Environment Agency*** (REP1-077)). An updated ***OLEMS*** (document reference 8.7) has been submitted at Deadline 3 which specifies that the EA will be consulted on the scope of these pre-construction surveys.

ID	Written Representation	Applicants' Comments
15	15. EN1 5.37 states as a general principle that the development "should aim to avoid significant harm to biodiversity including through mitigation and consideration of reasonable alternatives". SPR have chosen the most western site of the sites which were considered, which in turn has led to the harm being caused over the maximum area, including SSSIs (which should be given a high degree of protection under 5.3.10), Nature Reserves, Ancient Woodland and veteran trees, plus the species that reside along the cable route. It has been noted by SPR that bats are more prolific in the western areas.	A detailed site selection exercise was undertaken to inform the location of the onshore substation, as set out in ***section 4.9.3.2*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052). The exercise included consideration of a range of environmental and technical factors, including making key decisions to take account of ecological receptors, including, for example, the Sandlings SPA, county wildlife sites, hedgerows and the Aldeburgh Road woodland. Specific mitigation measures for bats are discussed in detail in ***section 5.10*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7).
16	16. EN1 5.3.14 deals with Ancient Woodland and Veteran Trees. Under this clause the Applicant "*should set out proposals for their conservation or, where their loss is unavoidable, the reasons why*". The decision to route the cable corridor through Aldringham includes the removal of both Ancient Woodland and Veteran Trees and no justification has been made for this or alternatives proposed. At the substation site in Friston, a wooded pit of very mature trees is proposed to be lost to the development, when it offers potential substantial screening to the site, as well as being a haven for wildlife. Simple micrositing of the development or the consideration of alternatives would have avoided this.	The woodland to the south of Aldringham which requires removal to facilitate cable installation is not Ancient Woodland, as confirmed during preparation of the EcIA and following a review of NE's Ancient Woodland Inventory detailed in ***section 22.5.3 of Chapter 22 Onshore Ecology*** (APP-070). The Applicants are unsure what wooded pit is being referred to in this comment, however the substation layout has been designed to ensure that as much of the natural screening present in the local area is used as possible, as outlined in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). Note the OLMP has been updated and re-submitted within the ***OLEMS*** at Deadline 3 and now includes further planting proposals.
17	17. EN1-5.3.18 deals with mitigation and states "the Applicant should demonstrate that opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals". There is no enhancement of existing habitats, let alone creation of any significant new habitats within SPR's proposals. The	The Applicants disagree with this comment. Enhancement is committed to with respect to a number of habitats within the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7) and as specified in the ***Ecological Enhancement Clarification Note*** (REP1-035) submitted at Deadline 1. This includes the replanting of hedgerow along the cable route using species of local origin, improving the quality

ID	Written Representation	Applicants' Comments
	proposals simply destroy existing habitats and wildlife, which may never be able to be restored.	of species-poor hedgerows, plus the creation of new areas of native woodland, species-rich hedgerow and species-rich and wet grassland at the substation locations (Figure 3 OLMP General Arrangement of the ***OLEMS***) .
Badgers		
18	18. The proposals necessitate the permanent removal of four badger setts on the substations site. SPR have also identified additional signs of badgers in the vicinity of the substation site consisting of a disused sett, two latrines and seven further signs of badger presence such as pathways or snuffle holes. SPR emphasize that they will avoid interference with Badger setts in the full knowledge that, of the five identified badger setts, four are within the permanent substation site and will be removed. (*Annex 3 –photographs of badger setts at the substation site*)	For clarity, the four outlier setts are proposed to be closed, as they are located within areas currently proposed for landscaping within the OLMP General Arrangement (Figure 3 of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 3.1)). The one main sett located within the onshore development area will be avoided during construction, therefore avoiding the need to close this sett. However, this was not confirmed at the time of the EcIA and therefore, as reported in ***Chapter 22 Onshore Ecology*** (APP-070), it had been assumed that the sett will be closed as a worst case. This position is reflected in the Applicants' statement in paragraph 209 of ***Chapter 22 Onshore Ecology*** "*The known sett within the onshore cable corridor will be avoided as the onshore cable route is defined; however, as a worst-case scenario it is assumed that this sett and the four active setts within the onshore substation and National Grid infrastructure site would need to be destroyed*".
19	19. Badgers are a protected species under the Protection of Badgers Act 1992. SPR recognise the effect of magnitude as **high** (APP-070, paragraph 209) , but appear to suggest that the creation of artificial setts (paragraph 211) and precautionary methods of working will reduce the effect from high to low in the medium to long term on what they assess to be a "low importance receptor" and therefore to be of **minor adverse significance**. (APP-070: Onshore Ecology 22.6.1.8 paragraphs 207-212).	The EcIA reported in ***Chapter 22 Onshore Ecology*** (APP-070), uses the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the United Kingdom (UK) and Ireland: Terrestrial, Freshwater and Coastal (2nd Ed.) (2016) as the basis for its approach to determining the 'importance' of ecological receptors. This approach is set out in ***Table 22.8*** (APP-070). A 'low' importance receptor includes the following definition, which applies to

ID	Written Representation	Applicants' Comments
	How can SPR make this value judgement of a "low importance receptor" on a protected species?	badgers: "*Any regularly occurring population of a nationally important species which is not threatened or rare in the region or county*". Magnitude of effect is also determined using the CIEEM Guidelines (see ***Table 22.9*** of ***Chapter 22 Onshore Ecology*** (APP-070)). The change in magnitude from 'high' to 'low' here is undertaken following CIEEMs guidelines on ecological impact assessment, where a 'high' magnitude is one which would affect a local feature's long term viability (in this case the survival of the local badger clan), whereas a 'low' magnitude is one which should not give rise to long term harm. Provision of artificial setts where main setts are destroyed and other mitigation to ensure habitats and foraging ranges are maintained are considered suitable to ensure there is long term threat to the local population viability. These measures are those NE recommends to reduce impact upon badgers within their Standing Advice (https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#mitigation-and-compensation-methods). Further information is provided in the Onshore Ecology Clarification Note submitted at Deadline 1 (REP1-023). The Applicants also note NE's agreement with the Applicants' approach. This can be found in ***NE's Comments on Onshore Ecology Clarification Note*** (REP2-055) submitted at Deadline 2.
20	20. However, in the Outline Landscape and Ecological Management Strategy (APP-584) regarding Badgers at paragraph 5.9 onwards, there is no mention of artificial setts, only detail on the exclusion of badgers from the setts prior to construction. What is suggested as mitigation in Chapter 22 Onshore Ecology is not committed to in the Outline Landscape and Ecological Management Strategy. This is unacceptable and infers that the badgers will either be culled or merely left to wander off to create new	The absence of specific details relating to artificial badger setts in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7) does not mean that the Applicants are not committed to constructing an artificial sett if required. If the Applicants are indeed required to secure a licence to close the main sett post-consent, the Applicants must demonstrate to NE the creation of an artificial sett in advance of sett closure (see Natural

ID	Written Representation	Applicants' Comments
	setts. Without the proposal to create artificial setts the effect of magnitude reverts to high.	England's Standing Advice on badgers: (https://www.gov.uk/guidance/badgers-surveys-and-mitigation-for-development-projects#mitigation-and-compensation-methods). Based on the findings of the onshore ecological surveys undertaken in support of the Applications, the Applicants are seeking Letters of No Impediment from NE in respect of badgers for four outlier setts within the onshore development area and a draft licence application is being prepared for submission to NE.
21	21. There is one badger sett identified by SPR along the cable route, which will likely need to be destroyed. SPR also recognise that the installation of the cables will represent the temporary loss of a substantial area of arable and hedgerow foraging habitat.	This is a correct representation of the results presented in ***Chapter 22 Onshore Ecology*** (APP-070). Since the EcIA reported on in ***Chapter 22 Onshore Ecology***, the Applicants now consider that the main sett can be avoided so it would only be predicted to be indirectly disturbed and will therefore not require closure.
22	22. SPR state that there will a protection buffer zone of 30M around each remaining sett outside the onshore infrastructure and that any trench over 1M deep will be covered at the end of each working day. There is however no mechanism to ensure that appropriate precautions are actually undertaken in practice.	These mitigation measures are secured in the same way as the other commitments in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7), which is that under Requirement 21 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) an EMP must be produced which accords within the ***OLEMS***, and which must be carried out as approved by the relevant planning authority. As noted in ***section 10.2*** of the ***OLEMS***, the Ecological Clerk of Works (ECoW) will have responsibility for ensuring that ensuring that all measures that are set out within the EMP are adhered to during construction.

ID	Written Representation	Applicants' Comments
Bats		
23	23. Figure 22.7f of the Environmental Statement 6.2.22.7 (APP-280) reveals at least 6 bat-roosting sites as having been identified as suitable in the substations site, together with hedgerows and parcels of land forming commuting and foraging routes, the majority of which will be lost to the development. The sightings of bats in this area include the rare Barbastelle bat.	This is a correct representation of the results presented in ***Figure 22.7f*** (APP-280).
24	24. There is insufficient information provided by SPR regarding the effect of the removal of hedgerows at the substation site will have on the foraging routes of bats. Even if replanted, these hedgerows will take many years to mature. It is not known how many other projects will also apply for a connection at this location, which would extend the period until re-planting could take place.	***Section 22.6.1.9*** of ***Chapter 22 Onshore Ecology*** (APP-070) provides an assessment of the effect of the construction of the Project on the foraging habitat for bats. The time lag between removal of a hedgerow and the point at which replanted or new hedgerows provide equivalent habitat value to that removed is noted within the assessment. For this reason, the residual impact following mitigation is concluded to be moderate adverse in the short term, reducing to minor adverse after 3-7 years (i.e. after the hedgerows mature). The Applicants have also identified additional mitigation involving commuting value surveys which is described in ***section 5.10*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). Where practicable, hazel hurdles or similar will be used to temporarily maintain links to hedgerow gaps to enable foraging, maintain commuting routes and encourage insects as a food source. For more information on the approach to CIA, please see the Applicants' response in rows 01-04 of ***Table 2.2 Cumulative Impact***.

ID	Written Representation	Applicants' Comments
25	25. Several bat roosts exist within Grove Wood, which is very close to the proposed substation buildings. Both the construction and operation of the substations will interfere with the foraging routes of these bats.	The EcIA reported in ***Chapter 22 Onshore Ecology*** (APP-070) acknowledges that some commuting routes will be affected during construction of the onshore substations (***section 22.6.1.9***). The mitigation set out in ***Chapter 22*** (APP-070) is considered to minimise the impact of this, reducing it to 'moderate adverse' in the short term and 'minor adverse' after 3-7 years. As described in row 24 above, the Applicants have also identified additional mitigation involving commuting value surveys which is described further in ***section 5.10*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7).
26	26. Roosting sites for bats will be disturbed by noise and lighting associated with the substations and this can cause bats to abandon roost sites. Roosts will also be lost by the felling of trees or alterations to bridges, culverts etc. (Information from *Suffolk Biodiversity Information Service*).	This is correct, although exactly how many roosts will be affected will be updated following the pre-construction survey detailed in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). Mitigation is proposed for these impacts, the details of which will be included within the EMP (secured under Requirement 21 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1)) once updated surveys have been undertaken post-consent.
27	27. There will be fragmentation of foraging and commuting habitats in the removal of vegetation, hedges etc along the cable route. This includes a reduction in insect population on which bats rely.	As described in row 24 of this table, this is an impact predicted to occur in the short term, prior to hedgerows and habitat creation planting at the substation maturing and providing suitable replacement commuting and foraging habitat (3-7 years) (APP-070). As described in ***section 5.10.3.3*** of the ***OLEMS***, where hedgerows are temporarily lost during construction, there will be a replanting regime (or the use of hazel hurdles) and restoration of adjacent habitat where practicable for bats. This in turn would provide habitats for invertebrates which are an important food source for bats.

ID	Written Representation	Applicants' Comments
28	28. Areas that have lighting, such as at the substation site and along the cable route, can form barriers between roosting sites and foraging areas. Lighting can cause a delay in emergence of bats from roosts, cutting foraging time and therefore affecting the health of the bat population.	Mitigation to reduce the impacts of lighting on roosting and commuting bats is presented in ***section 5.10.2*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). All temporary lighting will be designed in line with the Bats Conservation Trust (BCT) Bats and Lighting in the UK guidance (2018). This is to include the use of directional lighting during construction. Construction phase lighting will be limited to between 7am-7pm in low light conditions, with directional security lighting outside of these times, and dark corridors will remain in place during the construction phase (***section 5.10.3.2***). Following this mitigation the impacts upon bats are predicted to be 'moderate adverse' in the short term, and 'minor adverse' in the medium term (***section 22.6.1.9.3*** of ***Chapter 22 Onshore Ecology*** (APP-070)).
29	29. SPR have identified the presence of a **Lesser Horseshoe Bat** in Transect 3, in the vicinity of Billeaford Hall (Sheet 22.8c of 6.2.22.8/APP-281), very close to the cable route. (*Annex 4 – map*). This is a very rare species and there has been only one other sighting in Suffolk in the last 100 years. (*Information from Suffolk Wildlife Trust*). SPR have been asked to investigate this sighting in more detail, but have declined to do so. There should be a proper investigation before a decision on this Application is made.	For clarity, this species is very rare in Suffolk , not in general (it is classified as 'Least Concern' on the IUCN Red List). The species is rare overall in the UK, with its strongholds being in Wales and the West of England (SWT, 2020). It is one of five bat species on Suffolk list of Priority Species (SBIS, 2015). This species is locally very rare and therefore classified as 'high' importance receptors following the CIEEM Guidelines, but all UK bat species, due to their status as European Protected Species under the Conservation of Species and Habitats Regulations 2017, are classified as 'high' importance receptors following the CIEEM Guidelines and therefore all are treated with equal importance during the EIA process. Detailed bat activity surveys have been undertaken for this species as for all bat species, and nothing further is required at this stage to draw conclusions about potential impacts or appropriate mitigation.

ID	Written Representation	Applicants' Comments
30	30. SPR acknowledge that there were errors in the bat detection equipment used, resulting in gaps in the recording. Of the 220 days that were recorded, there are 58 days with no data, with the result that 26% of the survey has no data. Weather conditions are also known to affect the data collected.	The recording success of bat activity surveys is vulnerable to equipment malfunctions, adverse weather conditions, and other factors (in this instance changes in access permission) – this is one of the reasons why such extensive survey coverage is attempted for surveys of this nature. Therefore, when some data is not available, there is a large baseline which can be used to base conclusions on. 162 days of survey data across 7 sites is a substantial dataset and is sufficient to have confidence in the results derived from it. The limitations and validity of the data collected is described in full in ***section 22.4.4*** of ***Appendix 22.6 Bat Survey Report*** (APP-507).
31	31. In addition to the above there were two transects which were inaccessible during late summer, when bats are active. It is therefore not considered that the Bat Survey is complete and cannot be fully relied upon.	See response to in item 30 of this table.
32	32. SPR have identified a higher density of bats within the western portion of the onshore development area (Transects 1 – 4) *Chapter 22, Onshore Ecology, (APP-070), paragraph 218 refers: "The 2018 activity transects show that there is a higher density of bats using the transect areas within the western portion of the onshore development area. However, foraging/commuting bats were observed albeit in lower densities within the transect areas near to the coastline. Given the sensitivity of this receptor there is the potential for significant impacts during construction without mitigation*. "(emphasis added)	This is a correct representation of the results presented in ***Chapter 22 Onshore Ecology*** (APP-070). Note that 'significant' used in this sentence denotes significant in EIA terms, i.e. either a 'major adverse' or 'moderate adverse' impact without mitigation. ***Section 22.6.1.9.3*** of ***Chapter 22 Onshore Ecology*** goes on to provide the mitigation required to reduce this impact down to a non-significant level (in the medium term).
33	33. Core Sustenance Zones are an area around the bat roost where the habitat will have an effect on the resilience of the colony using that roost. The zone is different for each species but ranges from 1km to 6km. (Information from the Bat Conservation Trust's – Core Sustenance Zones and Habitats of Importance). This can indicate that development work can	This comment misunderstands what the Bat Conservation Trust's advice on Core Sustenance Zones (CSZ) is seeking to achieve. The CSZs are most useful when analysing desk based information, for working out which species may be present within the site. For example, if a biological records search has returned evidence of maternity roosts for

ID	Written Representation	Applicants' Comments
	impact the colony in terms of foraging and commuting and suggests the 50 metre buffer zone adopted by SPR is insufficient. The Bat Conservation Trust should be consulted on these Applications.	five bat species within 3km of works, and all of these species' CSZs are 3km or greater, then mitigation for any loss of these species' habitats of importance should be considered when designing the scheme. In the present circumstances, the Applicants have gone beyond the desk based assessment and undertaken extensive bat activity survey data for the onshore development area. This dataset has allowed us to know precisely which species not only could be present within the onshore development area, but are present, which means we can be more appropriate in targeting our habitat reinstatement and creation to support these species. In this case, the species recorded during the bat surveys are Barbastelle, Common pipistrelle, Lesser horseshoe, Myotis spp, Noctule, Serotine/Leisler, Soprano pipistrelle and Nathusius' pipistrelle. These species have a range of habitat preferences, including broadleaved woodland, woodland edges, tree-lined roads, wet meadows, riparian habitats and grazed pasture (BCT, Core Sustenance Zones and Habitats of Importance, 2020). The habitat creation measures outlined in the OLMP the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 3.1) include provision for the first four of these habitat types, increasing the overall habitat provision within the commuting and foraging range for the species recorded during the bat survey (APP-507). The 50m buffer zone is not the assumed maximum extent an individual bat might travel to the habitat present within the onshore development area, but a potential disturbance buffer around potential bat roosts, and any light spill / noise / works which might affect tree roots which occurs within this 50m buffer is considered with regard to the potential impact it might have on active roosts.

ID	Written Representation	Applicants' Comments
Invertebrates		
34	34. SPR have not sufficiently investigated invertebrates in Chapter 22, Onshore Ecology, of the Environmental Statement and say that there is no evidence of suitable habitat to support significant populations of invertebrates and that these species will not be considered further. (APP-070-Chapter 22 5.3.8, paragraph 155 refers). This cannot be correct when this part of Suffolk is teeming with insect life.	The 2018 Extended Phase 1 Habitat Survey (APP-503) did not record any habitats suitable for supporting notable species of invertebrates, and therefore no further assessment of invertebrates was undertaken as part of the EcIA reported in ***Chapter 22 Onshore Ecology*** (APP-070). This was determined because the habitats comprised primarily arable land (89% of the onshore development area), with isolated areas of woodland, hedgerow, scrub and poor quality grassland. The biological records search only returned records of one notable species, the lunar-yellow underwing moth *Noctua orbona* (local (Suffolk) priority species) (see response to comment 35), for which suitable habitat was not recorded within the survey area.
35	35. Suffolk Biodiversity Information Service has 140 records of invertebrates within (and up to 2km from) the onshore development area, of which the Lunar-yellow underwing moth is on the Suffolk priority species list. It is a rare species in the UK and is only found in a very few locations, which include the Suffolk Sandlings, notably in the Aldringham Walks location. SPR must investigate this important species further.	The lunar-yellow underwing moth *Noctua orbona* is associated with open sandy heath or calcareous sites, which have not been recorded within the Sandlings SPA within the onshore development areas (scrub and poor semi-improved grassland has been recorded, see ***Figure 22.4a-f – Extended Phase 1 Habitat Survey Results*** (APP-277)).
36	36. Glow-worms have been seen by residents in the vicinity of the cable-route in Aldringham.	'Glow worms' (*Lampyris noctiluca* in the UK) are a species of 'Least Concern' on the IUCN Red List, are not a Suffolk priority species, and as such would not be considered further within the EcIA reported in ***Chapter 22 Onshore Ecology*** (APP-070).
37	37. SPR have not consulted BugLife (The Invertebrate Conservation Trust). Had they done so, they would have been advised that a B-Line has been established both north/south and east/west in the same location as the proposed cable route. B-Lines are migration corridors for bees and	The B-Line initiative is a positive one with many important benefits of improving the connectivity of habitat for the UK's invertebrates. The initiative seeks to improve future connectivity but is not an existing receptor which requires consideration as part of the EcIA reported in ***Chapter 22 Onshore Ecology*** (APP-070). It should be noted that the

ID	Written Representation	Applicants' Comments
	other pollinators and are funded by Natural England. (Annex 5 – map of Norfolk/Suffolk B-Line).	Projects are reinstating all important connecting habitats lost during construction (i.e. hedgerows) to an equal or improved standard to what has been removed (see ***section 5.3*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7)).
Great Crested Newts		
38	38. SPR have not fully surveyed the 38 waterbodies, which they have identified in the onshore development area. Six waterbodies have not been surveyed. Paragraph 147 of 22.5.3.5 (APP-070) states that three ponds have returned a positive result for Great Crested Newts. SPR then go on to say that further surveys will be undertaken prior to construction. This again is totally unsatisfactory and further investigative work is necessary during the Examination period.	The Applicants surveyed 32 of 38 water bodies within the great crested newt survey area for their potential to support great crested newt (see ***Appendix 22.4 eDNA Survey Report*** (APP-505)). As can be seen from ***Figures 22.4.1e-f***, of the six unsurveyed water bodies, due to design refinement since the date of survey, five are now located >250m from the onshore development area and therefore outside of the revised great crested newt survey area. The one remaining water body, 143, is located adjacent to the northern boundary of the substation locations. It is not unusual for developments of this nature to have some field survey data gaps, as surveys are reliant on voluntary access in order to complete them in a timely manner. Where this occurs, under a precautionary approach, the assumption made in the assessment is that any unsurveyed areas may potentially support the receptor in question. ***Chapter 22 Onshore Ecology*** (APP-070) does specify the three ponds where presence was confirmed at the start of the impact assessment (***section 22.6.1.10***), however the mitigation presented is generic for any water body where terrestrial impacts may occur. In practice, it has been assumed that the potential impacts which may occur upon great crested newt for ponds 117, 135 and 152 also apply for pond 143. Post-consent, when surveys are repeated to inform a full great crested newt licence application, then all relevant water bodies will require survey. This commitment is detailed in ***section 5.11.3.1*** of the ***OLEMS*** (an updated

ID	Written Representation	Applicants' Comments
		version has been submitted at Deadline 3, document reference 8.7). This approach has been agreed with NE.
39	39. Suffolk Biodiversity Information Services (SBIS) have a record of Great Crested Newts within a pond in Grove Wood close to the substation site. SPR's waterbody location maps can be found at Figure 22.4a-f (APP-278). This pond is included within an area designated for habitat mitigation, but it is unclear whether there is a conflict between the resident Great Crested Newts and any other species proposed to relocated from the substation site.	Great crested newt was confirmed as present within pond 117, which is located within Grove Wood, during the eDNA Survey (***Appendix 22.4 eDNA Survey Report*** (APP-505)). Without detailed location information from the SBIS record, it is assumed that the record also relates to this water body. This area is not subject to habitat works and will be retained during construction. Therefore, no impacts to this breeding pond will occur. There are potential impacts to intermediate and distant (i.e. >50m) terrestrial habitats which support this pond, and these will be subject to mitigation as outlined in ***section 5.11.3*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7).
40	40. SPR have omitted to record that a pit on the substation site, where EA1N is proposed to be built, is seasonally flooded and this therefore adds a further waterbody which has not been surveyed. A survey should be carried out in the winter 2020/21. (*Annex 6 – flooded pit on substation site*)	Without further details on the location of the pit mentioned in this comment the Applicants cannot confirm whether or not it has been surveyed. The Applicant can confirm that they have carried out a full complete survey of all water bodies noted within the substation locations during the ***Extended Phase 1 Habitat Survey*** (APP-503). Great crested newt surveys can only be carried out between March – June (inclusive) and not over winter. The Applicants will be conducting pre-construction surveys in line with standard practice. This will determine the need for further assessment of this water body.
41	41. Natural England's new District Level Licensing (DLL) for Great Crested Newts for Suffolk Coastal District was due to launch in September 2020. No reference is made to this DLL in SPR's application and a more detailed survey will need to be carried out. The DLL requires that compensation ponds are provided and give guidance on how this is to be achieved	NE's new District Level Licensing (DLL) scheme for great crested newt went live in Suffolk in October 2020. The Applicants note a few important points to be aware of regarding DLL:

ID	Written Representation	Applicants' Comments
	(Annex 7- Calculation of compensation ponds for Great Crested Newts) Note the 250M dispersal area from the pond and the ratio of compensation required. No such compensation has been put forward by SPR in respect of the ponds where Great Crested Newts have been identified.	• The scheme is not an essential requirement for projects which will impact on great crested newt, but is an alternative to the existing approach for great crested newt mitigation which can save developers time and money, whilst also allowing the mitigation for great crested newt to be more strategic at a landscape scale, and less piece-meal on a project-by-project basis. Developers are entitled to continue with the existing licensing regime to mitigate their impacts if they wish; • Less survey data, not more, is required to access the scheme. This is because it does not matter if great crested newt is necessarily present on your site, only that you have a good understanding of what ponds and terrestrial habitats will be affected; and • The scheme has just come into effect in Suffolk and was not live at the time of submission of the Applications. Following consent, the Applicants will be undertaking pre-construction surveys for great crested newt, as secured via ***section 5.11.3*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). Following the findings of the updated surveys, the Applicants may wish to engage with Suffolk's DLL scheme at that stage as an alternative to the traditional licensing route. However, as a minimum, mitigation under the traditional licensing route is secured via the ***OLEMS***.
Reptiles		
42	42. SPR's habitat survey discloses that Suffolk Biodiversity Information Service holds 77 records of reptiles within (and up to 2km from) the indicative onshore development area, with adder, common lizard, grass snake and slow-worm being recorded.	This is a correct representation of the results presented in the 2018 ***Extended Phase 1 Habitat Survey Report*** (APP-503).

ID	Written Representation	Applicants' Comments
43	43. In Chapter 22 on Onshore Ecology (APP-070) SPR have identified seven areas of suitable reptile habitat, however they have not carried out any reptile surveys as they say in paragraph 152 that the areas are considered to be of an inappropriate size to support large populations. This must be untrue as this part of east Suffolk with its heathland, sandy scrubland and grassland is well known for its high numbers of adders, lizards and slow-worms.	As described in ***section 22.5.2.1*** of ***Chapter 22 Onshore Ecology*** (APP-070), heathland, sandy scrubland and grassland are not common habitat types within the onshore development area. Instead, it is predominately arable land (which comprises 89%, with areas of woodland, hedgerow, scrub, and poor-quality grassland (i.e. species-poor with a homogenous sward)). The habitat mosaics recorded are all small and localised, consisting of vegetation piles, areas of scrub, woodland edges, arable field margins and grassland areas (***Table A22.6*** and ***A22.13*** of ***Appendix 22.3 Extended Phase 1 Habitat Survey*** (APP-503)), none which were part of larger habitat networks capable of supporting large populations of reptiles.
44	44. SPR propose to deal with reptiles by a Precautionary Method of Working outlined in Appendix 22.3 (APP-503) paragraph 130 on page 26. This relies completely on the operatives being responsible for not harming reptiles and is unsatisfactory.	Delivery of the Precautionary Method of Working is supervised by the ECoW (***section 5.12.2.2*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7)), to ensure compliance with the details of the Precautionary Method of Working set out in the EMP during construction. The written details of the method of working will be included within the EMP, which under Requirement 21 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) must be approved by the relevant planning authority in consultation with the relevant statutory nature conservation body prior to works.
45	45. The presence of reptiles cannot be dismissed by SPR as being insignificant in the onshore development area.	See responses to in items 42-44. The mitigation proposed within ***Chapter 22 Onshore Ecology*** (APP-070) is considered proportionate to the scale and nature of the reptile habitat identified during the 2018 ***Extended Phase 1 Habitat Survey Report*** (APP-503) and 2019 Addendum.

ID	Written Representation	Applicants' Comments
Water voles and otters		
46	46. SPR's Appendix 22.5 (APP-506) Water Vole and Otter Presence/Absence Survey concludes that the only suitable habitat for these species is the Hundred River. The survey acknowledges that access to the Hundred River was limited due to overgrowth of vegetation and also limited landowner consent. Despite this, the survey concludes that there are no water voles or otters present in the River Hundred. This is categorically not the case as the presence of otters and water voles in this location is well-known in the local population.	The water vole and otter survey (***Appendix 22.5*** (APP-506)) conducted to inform the EcIA focussed on the extent of the Hundred River potentially impacted by the works. The survey extent used was the extent of the Hundred River within the onshore development area plus a 50m buffer. Whilst the records obtained from SBIS confirm that both species have historically been present on the Hundred River (***sections 22.4.1.4.4*** and ***22.4.1.4.5*** (APP-503)), neither species were recorded at the time of the survey, and therefore mitigation for both species is not required. Given their historic presence on the river, the need for a pre-construction survey is set out in ***section 22.5.3.4*** of ***Chapter 22 Onshore Ecology*** (APP-070) to ensure that these species have not moved into the working area prior to construction. If they have, then mitigation will be required with respect to these species. As detailed in ***section 5.6.3.2*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7), pre-construction surveys for otter using the Hundred River will be undertaken in accordance with relevant industry guidance. The extent of the survey area will comprise the Hundred River crossing plus 100m upstream and downstream of the crossing location. The pre-construction survey results will be used to inform species-specific ecological mitigation measures (including any licence requirements), which will be included within the final Ecological Management Plan prepared post-consent to discharge Requirement 21 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1).

ID	Written Representation	Applicants' Comments
47	47. SPR also acknowledge that Suffolk Biodiversity Information Service has 3 records of water vole and 5 records of otters, both in the vicinity of the Hundred River.	This is correct, see response in item 46.
48	48. The Suffolk Otter Survey of 2016 contains the following statement: "*Otters are resident on the Hundred River and 'The Fens', an area of reed-beds providing excellent cover. Spraint, footprints and remains of meals are regularly found along the Hundred River*".	See response in item 46. The Applicants are not disputing the fact that otter has been previously recorded on the river, but rather that evidence of their presence was not recorded at the time of the surveys. The Applicants have committed to undertaking pre-construction surveys for otters due to suitable habitat being present and the mobility of these species.
49	49. There is strong evidence that SPR's findings on water voles and otters are unreliable and they should be required to make a full re-assessment of the presence of water voles and otters along the Hundred River before a decision on the Application is made.	The Applicants disagree with this comment. Surveys were adequately completed within the appropriate survey window, carried out by suitably experienced individuals who were able to access the habitat to a sufficient degree to draw robust conclusions about presence / absence, in line with the methods set out in the best practice guidance (The Water Vole Mitigation Handbook (Dean et al. 2016)), as explained in full in ***Appendix 22.5 Water Vole and Otter Survey Report*** (APP-506). Furthermore, the Applicants have committed to undertaking pre-construction surveys for water voles and otters due to suitable habitat being present and the mobility of these species.
50	50. Attached to this report at Annex 8 is a description of the wildlife which will be affected by the bi-section of the River Hundred. The author is Dr. Gillian Horrocks who is a resident of Aldringham, close to the River Hundred.	This comment is noted. However, it refers only to a short statement and not a survey report or other evidence, so the Applicants are unable to provide any further commentary on this Annex.
Birds		
51	51. There will be permanent effects on birds and wildlife due to light and noise pollution from the substations, when in operation. Our understanding	***Section 23.6.4.2*** of ***Chapter 23 Onshore Ornithology*** (APP-071) concludes that disturbance from lighting (above general operational

ID	Written Representation	Applicants' Comments
	is that security lighting will be motion sensitive and therefore react to movement from animals and birds.	movements on and off site) is predicted to be an impact of 'minor adverse' significance only. This is because, with the exception of barn owl, a species tolerant of human presence, no important ornithological features are likely to be found in proximity to the onshore substations or National Grid infrastructure.
52	52. The agricultural land lost at the substations site has not been given proper significance in relation to the birds associated with this area. In particular Red List species such as skylarks and yellowhammers are known to frequent this location. SPR recorded 15 skylarks at the substation site but yet have given their presence no significance.	As detailed in ***Table 23.19*** of ***Chapter 23 Onshore Ornithology*** (APP-071), skylarks were scoped out of further assessment as the species is widespread within the onshore ornithology study area, with large areas of suitable habitat available outside the onshore development area. The majority of localised impacts are likely to be to non-Special Site of Scientific Interest (SSSI) skylark individuals, and unlikely to be significant within the context of the SSSI or regional populations. Yellowhammer was not recorded during the baseline breeding bird surveys (***Appendix 23.3 - Onshore Ornithology Survey Report Breeding Season 2018 and 2019*** (APP-510)), and so is not considered within the EcIA reported in ***Chapter 23 Onshore Ornithology***.
53	53. Barn owls are a Schedule 1 species however SPR have given little information about the abundance and distribution of this species and what effect the substations and cable corridor will have on their population or available prey. SPR admit to one pair of nesting barn owls on the substation site at Friston however consider it of negligible significance. Barn owls are also known to be present near the Hundred River and Fitches Lane within the onshore development area.	***Section 23.5.4.1.6*** of ***Chapter 23 Onshore Ornithology*** (APP-071) contains a full consideration of the potential effects on barn owl. Data from the breeding bird baseline survey and the Suffolk Community Barn Owl Project has been used to identify the distribution of barn owl within the onshore ornithology study area. An analysis of the local distribution of barn owl indicates that it has a favourable local conservation status (***Table 23.18***), and therefore is assigned a sensitivity of low-medium (***section 23.6.3.1.7***). When assessing the impacts on barn owl, the loss of foraging habitat for one breeding pair and the reduction in survival chances of one pair when there are 450 pairs in the local area is considered to represent an effect of 'negligible' magnitude, giving an impact of 'minor adverse' significance

ID	Written Representation	Applicants' Comments
		(***section 23.6.3.1.7.3***). The mitigation proposed in ***section 23.6.3.1.7.5***, including the provision of new nest boxes in consultation with the Suffolk Community Barn Owl Project reduces the impact to 'negligible' (***section 23.6.3.1.7.6***).
54	54. According to SPR's 2018 Other Target Species Observations (APP-292) a Spotted Flycatcher, which is on the Red List, was sighted near the substations site.	As detailed in ***Table 23.19*** of ***Chapter 23 Onshore Ornithology*** (APP-071), spotted flycatcher was scoped out of further assessment as the only record for the species is located 900m from the onshore development area, which is beyond the likely maximum potential disturbance buffer associated with construction and operation.
55	55. Much of the information on onshore ornithology in SPR's submission has been redacted, including all information on Schedule 1 birds. Whilst it can be argued that the intention is to protect these species, it prevents people with local knowledge from making observations on the correctness of these surveys.	Schedule 1 species recorded during the breeding bird surveys are summarised in ***Table 23.15*** of ***Chapter 23 Onshore Ornithology*** (APP-071). It is only their locations which are redacted due to persecution risks.
56	56. Nightingales are a known feature across this part of East Suffolk yet SPR do not properly acknowledge their presence, concentrating instead only on nightingales resident in the SSSIs. Proper account should be taken of this species in other locations, such as Fitches Lane in Aldringham, and give proper significance to these.	As shown in ***Figure 23.6*** (APP-289), this species was not recorded during the breeding bird surveys outside of the Sandlings SPA and the Leiston-Aldeburgh SSSI. The breeding bird surveys covered the full onshore development area over monthly visits between February and August 2018 and are considered to provide a robust assessment of the species present within the onshore ornithology study area (***Table 23.8 of Chapter 23 Onshore Ornithology*** (APP-071).
57	57. SPR only commit to halting construction work due to breeding birds within the SPA. There is no commitment to preventing disturbance to breeding birds elsewhere in the Onshore Development Area.	This is incorrect. The Applicants commit to general mitigation with respect to all breeding birds throughout the onshore development area within ***section 6.3.1*** of the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7).

ID	Written Representation	Applicants' Comments
58	58. The landfall site and offshore works will also have a detrimental effect on marine life. Attached as a final appendix at Annex 10 is a report by local resident and naturalist, Gillian Horrocks, on the Effects on Marine Life, focussed on Thorpeness and the local population of Kittiwakes at Sizewell.	There are a number of points raised in Annex 10, the majority of which relate to offshore ornithology. With respect to point 1, p. 20 regarding the beach cliffs, these will be avoided through the use of a trenchless technique to install the cables at the landfall, which will remove the risk of impacts to species nesting on the cliffs in the Thorpeness area. The Applicants have reviewed Annex 10 of the SASES response. A comprehensive assessment on offshore ornithology receptors based on two years of site-specific survey data is provided in ***Chapter 12 Offshore Ornithology*** (APP-060) and the ***Information to Support Appropriate Assessment Report*** (APP-043) for the relevant SPAs screened into the assessment. The assessments (which include the potential indirect effects due to prey species displacement) concluded that impacts on seabird species would range from 'negligible' to 'minor adverse' significance (not significant in EIA terms) and that there would be no adverse effects on integrity (AEoI) of protected sites. These assessments were carried out at the project-alone and cumulative / in-combination level. The Applicants have committed to an increase in wind turbine draught height from 22m to 24m above mean high water springs in order to mitigate potential collision risk impacts on offshore ornithology receptors. Also, for East Anglia TWO a buffer distance from the Outer Thames Estuary SPA of 2km has now been implemented to reduce the potential displacement impacts on red-throated divers associated with the SPA. The Applicants are currently discussing potential compensation options for the relevant qualifying features of the Flamborough and Filey Coast, Alde-Ore Estuary and Outer Thames Estuary SPAs with NE and other relevant stakeholders. This is on a without prejudice basis.

ID	Written Representation	Applicants' Comments
Trees		
59	59. The cable route will involve the removal of countless trees, including many which will be effectively irreplaceable for hundreds of years. For example, a veteran oak tree (TM 44784 60407), estimated to be 196 years old and a beech tree (TM 44654 60484) estimated to be 158 years old, near Gypsy Lane in Aldringham, will be lost due to the cable route. (Annex 9 – photos of mature oak and beech trees near Gypsy Lane)	No veteran trees have been identified as requiring removal to facilitate construction of the Projects. Some mature trees will require removal, however individual mature trees are not considered as an important receptor within the EcIA (see ***Table 22.8*** of ***Chapter 22 Onshore Ecology*** (APP-070). Trees subject to Tree Preservation Orders, including those north of Fitches Lane, are assigned 'medium' importance within the Ecological Impact Assessment reported in ***Chapter 22 Onshore Ecology***. Mitigation for these trees has been presented in ***section 22.6.1.4.2*** of ***Chapter 22 Onshore Ecology***.
60	60. No trees can be planted for a width of 12M above the buried cables and this will leave a tunnel effect across the landscape and interconnection between habitats will be lost.	See response to item 06.
61	61. There is a group Tree Preservation Order on the woodland surrounding Aldringham Court (Grade II Listed). A large swathe of these trees is proposed for removal. This woodland supports many species and includes rare lichens.	See response to item 59.
62	62. A wooded pit in the substation site will be built over, removing an unspoilt and hidden habitat for many creatures, especially badgers, birds and bats.	See response to item 16.
Cumulative Impact		
63	63. SPR recognise that the impact on ecology will be made more significant due to the combined effects with other proposed projects in the area. These would include Sizewell C and the Nautilus and Eurolink Interconnector projects, as well as Galloper and Greater Gabbard	The Applicants refer to their response provided in rows 01-04 of ***Table 2.2 Cumulative Impact***.

ID	Written Representation	Applicants' Comments
	extensions etc. SPR have only taken account of Sizewell C and not the other projects which will cumulatively have an effect on ecology in terms of duration of time and extent of disturbance.	
64	64. This part of Suffolk is prized for its wildlife and many people are drawn to the area for this reason. The effect of the implementation of the combined projects planned for the "Suffolk Energy Coast" on an area currently known as the "Suffolk Heritage Coast" is overwhelming and is counter to the aims of conservation implicit in the battle to prevent Climate Change.	
Conclusion		
65	65. SPR have not carried out any proper surveys of Invertebrates and Reptiles and these are likely to suffer significant harm during the construction period.	See previous comments.
66	66. There has been no assessment of the presence and diversity of botanical species.	
67	67. SPR's surveys of Bats, Great Crested Newts, Voles and Otters are inadequate and incomplete. It is imperative that the sighting of the Lesser Horseshoe Bat is further investigated.	
68	68. SPR consistently underestimate the significance of the wildlife and plant life in the area, as well as its contribution to the whole character of this part of East Suffolk.	
69	69. It is clear from SPR's various survey maps that there is an abundance of wildlife in the proposed substation site, which will be permanently displaced.	

ID	Written Representation	Applicants' Comments
70	70. The choice of site to the extreme west of the onshore search area results in the maximum about of disruption to wildlife, trees and plants across the 5-mile cable route.	
71	71. The proposed development cannot be properly described as "green" when the damage to the onshore ecology and environment is so high.	
72	72. None of the above is compliant with EN1-5.3, specifically with regard to giving due significance to protected species, the proper consideration of alternatives, or the enhancement of existing habitats.	

2.10 Light Pollution

ID	Written Representation	Applicants' Comments
Mitigation		
01	Policy 12. Measures outlined in EN-1 viii should be adhered to including: • Paragraph 5.6.1 which acknowledges that "during the construction, operation and decommissioning of energy infrastructure there is potential for the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act 1990". Paragraph 5.6.2. states that "because of the potential effects of these emissions and infestation, and in view of the availability of the defence of statutory authority against nuisance claims … it is important that the potential for these impacts is considered". • Paragraph 5.6.3 which states that in the area of dust, odour, artificial light, smoke, steam and insect infestation "that for energy NSIPs, some impact on amenity for local communities is likely to be unavoidable. The aim should be to kept impacts to a minimum, and at a level that is acceptable". • Paragraph 5.6.7 says that "The Infrastructure Planning Commission (IPC) should satisfy itself that: • an assessment of the potential for artificial light, dust, odour, smoke, steam and insect infestation to have a detrimental impact on amenity has been carried out; and that • at all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts.	Along the length of the onshore cable route, no 24-hour lighting is anticipated to be required except that associated with trenchless techniques and security lighting at the CCSs. Provision of manned or unmanned 24-hour security may be required within the onshore development area. Task lighting will be utilised in localised areas where required (***section 6.7.3.13*** of ***Chapter 6 Project Description*** (APP-054)). As described in ***section 6.7.8.14***, as a worst case scenario, it has been assumed that some periods of 24 hour construction will be required, for which task related flood lighting will be necessary. An overview of potential mitigation measures for mitigating lighting impacts during construction is provided in ***section 3.7*** of the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) Operational lighting requirements at the onshore substation site would entail: • Security lighting around perimeter fence of compound, to allow CCTV coverage, possibly motion sensitive; • Car park lighting – as per standard car park lighting, possibly motion sensitive; and • Repair / maintenance – task related flood lighting will be necessary. No additional lighting is proposed along Grove Road or along the additional access roads within the substation location.

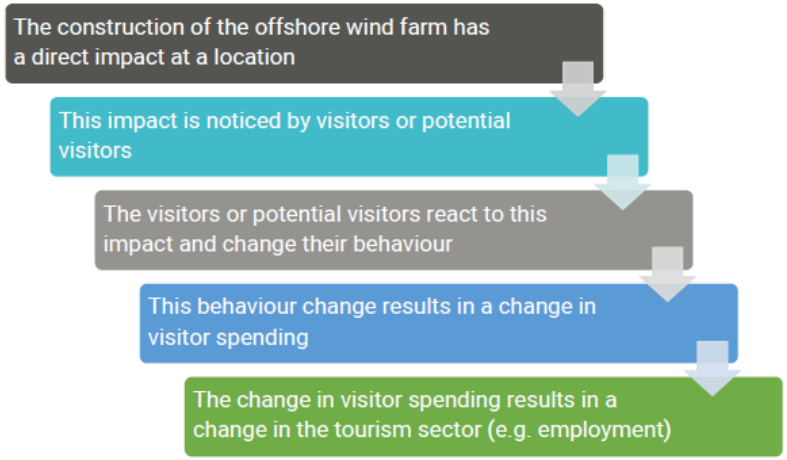
ID	Written Representation	Applicants' Comments
	• Paragraph 5.6.9 states that "Where it believes it appropriate, the IPC may consider attaching requirements to the development consent, in order to secure certain mitigation measures". • Paragraph 5.6.10 states that "In particular, the IPC should consider whether to require the applicant to abide by a scheme of management and mitigation concerning insect infestation and emissions of odour, dust, steam, smoke and artificial light from the development. The IPC should consider the need for such a scheme to reduce any loss to amenity which might arise during the construction, operation and decommissioning of the development. A construction management plan may help codify mitigation at that stage. • Paragraph 5.6.11 outlines mitigation measures which may include one or more of the following: ○ engineering: prevention of a specific emission (in this case light pollution) at the point of generation; control, containment and abatement of emissions if generated; ○ lay-out: adequate distance between source and sensitive receptors; reduced transport or handling of material; and ○ administrative: limiting operating times; restricting activities allowed on the site; implementing management plans.	An Operational Artificial Light Emissions Management Plan will be developed for the final design for the permanent infrastructure, as secured under the requirement 25 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). The plan will detail any sensitive receptors, and describe the Operational Artificial Light Emissions Management Plan which will be implemented, including lighting requirements, positioning and hours of operation, alongside any monitoring and reporting which might be required. A security fence will surround the National Grid substation. External lighting would also be installed at the National Grid substation which would entail: • General lighting around the perimeter fence and within the National Grid substation for the purposes of security and to provide adequate lighting levels for access and inspection of equipment; and • Task related flood lighting within the National Grid substation which will be necessary from time to time during repair/maintenance activities. Whilst the above lighting is provided, the substation would not normally be lit during hours of darkness. External lighting would be installed on the perimeter and within the National Grid substation, cable sealing end compounds and cable sealing end compound (with circuit breaker) compound for security purposes and to facilitate maintenance or repair works during the hours of darkness or low light, although the National Grid infrastructure would not normally be lit. Additional temporary task lighting will also be used in any area in which maintenance or repair works are being undertaken.

ID	Written Representation	Applicants' Comments
02	Mitigation Measures 13. The following mitigation measures be put in place. • There must be a reduction in working hours so that residents are not impacted by 24 hour a day works needing lighting, and, especially during the winter months, the planned 12 hour a day works are shortened. The National Planning Policy Framework 2019, unfortunately makes little reference to lighting with regard to the control of obtrusive light, but it does state: "c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation". • The Applicant's proposed 'Operational Artificial Light Emissions Plan' and any other substation developers must conform to published standards and guidance for lighting eg Commission Internationale De L'Eclairage (CIE) document which would support mitigation of aspects of intrusive lighting. • Any developer working on the proposed development and any other/later projects at the site must conform to all British Standards in relation to the lighting of roads, places of work and the methods of measuring lighting performance. • The Local Authority must work with the Applicant and any other developer throughout the construction and working stages, in accordance with the Clean Neighbourhoods and Environment Act 2005 (CNEA), to ensure that no light emitted from the proposed works constitutes as a statutory nuisance. • The Local Authority must specify, to any developer working on the project, the 'environmental zone' which incorporates the proposed development, ie. E1 would constitute a Natural zone with a dark lighting environment (eg relatively uninhabited rural areas, National parks, Areas of Outstanding Natural Beauty, IDA buffer zones), E2 would constitute a Rural zone with low district brightness (sparsely inhabited rural areas, village or relatively dark outer suburban	The Applicants note SASES recommendations for controlling and mitigating lighting impacts. • Construction activities would normally be conducted during Monday to Friday working hours of 7am to 7pm and Saturday working hours of 7am to 1pm. Working hours are not proposed for Sundays or Bank Holidays. These working hours have been reduced on Saturdays from those originally proposed following feedback received from Section 42 consultation. Residents will therefore not be affected by 24hr a day works needing lighting. This is secured under requirements 23 and 24 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1); • The Operational Artificial Light Emission Plan will be produced in line with best practice such as British Standards and industry guidance; • With regard to the Clean Neighbourhoods and Environment Act 2005, site lighting will be positioned and directed to minimise nuisance to footpath users and residents, to minimise distractions to passing drivers on adjoining public highways and to minimise sky glow, so far as reasonably practicable. Details of the location, height, design and luminance of all floodlighting to be used during the construction of the Projects, together with measures to limit obtrusive glare to nearby residential properties, will be set out in the Artificial Light Emissions Management Plan (required under Requirement 22 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1));

ID	Written Representation	Applicants' Comments
	locations). The environmental zone identified would enable the recommended 'Maximum values of vertical illuminance on properties' both Pre and Post-curfew, the 'Limits for the luminous intensity of bright luminaires Pre and Post Curfew, the 'Maximum values of upward light ratio (ULR) of luminaires', the 'Maximum permitted values of average surface luminance (cd/m2)' and the 'Maximum values of threshold increment and viewing direction in paths of travel' to be identified. • Obtrusive Light (whether visible from residents' homes or impeding the view of the night sky) and Sky Glow must be substantially mitigated, there must be a guarantee of no light spill and no light intrusion causing a 'nuisance' to others and adversely affecting fauna and flora. • Light sources (lamps/LEDs) must be those which combat the problem of obtrusive light. "Most night-time visual tasks are only dependent on light radiated within the visual spectrum. It is therefore not necessary for light sources to emit either ultra-violet or infra-red radiation (unless specifically required to do so). Research indicates that light from the blue end of the spectrum could have important adverse effects on fauna and flora". xi The blue light spectral power of the light source should be considered by SPRs designers with the needs of the task balanced with its impact on the environment including fauna and flora. Low temperature LEDs and compact fluorescents should be used. Outdoor fixtures should use longer-wave LEDs rather than bright-white lights which would limit the impact on light sensitive animals. • The Applicant, and any other developer on the proposed project, must thoroughly assess the use of the area by bats (before artificially lighting in the vicinity of a bat roost or where bats may commute or forage). They must ensure that Natural England are fully aware of the full assessment any impacts and appropriate mitigation has been considered within any mitigation licence	• With regard to environmental zones and the AONB, during construction of the onshore cable route, short-term, temporary effects from lighting on the relative tranquillity of the area of the AONB between Thorpeness, Sizewell and Leiston will primarily be experienced. These effects would occur over several separate short 2-3 month periods of peak construction activity and not continuously throughout the construction phase. Edges of the AONB near Leiston have more urban development influences and are less impacted by changes resulting from the onshore cable route construction; • The Applicants propose to use directional beams, non-reflective surfaces and barriers and screens, to avoid obtrusive light whilst maintaining safety and security obligations; • With regard to impacts on fauna and flora, all temporary lighting will be designed in line with the BCT Guidance Note 8 Bats and artificial lighting (2018). This is to include the use of directional lighting during construction. It will also be ensured that dark corridors remain in place during the construction phase; • As discussed in row 26 of ***Table 2.9 Ecology***, the Applicants will undertake pre-construction surveys as detailed in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7) in order to determine how many bat roosts will be affected to inform the mitigation strategy; and • With regard to installation height, details of the location, height, design and luminance of all floodlighting to be used during the construction of the Project, together with measures to limit obtrusive glare to nearby residential properties, will be set out in the Artificial Light Emissions Management Plan (required under

ID	Written Representation	Applicants' Comments
	applications. The Local Authority must also ensure that its duty to ensure impacts upon legally protected species are avoided. • The Applicant must choose luminaire with the right optical distribution at the right mounting height which is critical to minimizing light spill and the effects of obtrusive lighting effects. To minimize sky glow the Applicant must factor atmospheric conditions (eg humidity, clouds, atmospheric pollution etc.) in their design. The use of luminaires with asymmetric optics designed so that the front glazing is kept at or near parallel to the surface being lit, if correctly aimed, should ensure minimum obtrusive light. • Installation height should be that which keeps glare to a minimum – the main beam angle of luminaires directed towards a potential observer should be no greater than 70 degrees. Shields must be used on all lighting to minimize light spill and minimize glare. All lighting must have 3000k colour temperature or below. "In rural areas the use of full horizontal cut off luminaires installed at 0 degree uplift will, in addition to reducing sky glow, help to minimize visual intrusion within the open landscape".	Requirement 22 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1)).

2.11 Tourism and Socio-Economics

ID	Written Representation	Applicants' Comments
Summary		
01	1. The visitor economy of East Suffolk is at risk arising from the multiplicity of energy projects being considered for this relatively small area. The proposals along with the construction of Sizewell C and other energy projects pose a severe threat to the local 'green' economy which is a magnet both for visitors and current and future residents seeking respite from growing urbanisation elsewhere.	This statement does not solely refer to the Projects. Rather, this statement concerns cumulative impacts for the Projects together with Sizewell C (which have been assessed within the Applications) and unspecified future projects (which the Applicants have not assessed in line with guidance, see ***Table 2.2 Cumulative Impact***). No evidence is provided for this 'severe threat' other than the DMO Report referenced below. For the construction of any development to result in a change in visitor spending, and changes in the tourism sector, it is necessary for the steps below to be realised. Each of these steps is considered in this response:  Source: BiGGAR Economics

ID	Written Representation	Applicants' Comments
		1. The development has some impact(s) on the area: Direct impacts upon tourism and recreation assets during construction of the Projects are assessed in the chapter ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) (e.g. physical disturbance, air quality, noise etc. in ***Table 30.67, Table 30.68 and Table 30.69***). The assessment also takes account of construction effects from transport and these have been fully assessed in ***Chapter 26 Traffic and Transport*** (APP-074), (***section 26.6. 1.11*** *and* ***section 26.6.1.12***). No significant adverse impacts are predicted after the application of mitigation described in the inter-related chapters (i.e. ***Chapter 19 Air Quality*** (APP-067), ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073), and ***Chapter 26 Traffic and Transport*** (APP-074)). With regard to cumulative impacts, all projects (i.e. East Anglia TWO, East Anglia ONE North and Sizewell C) will need to mitigate their impacts to acceptable levels or provide similar mitigation for assets such as PRoWs. Proposed mitigation for the Projects can be found in the following documents: ***Outline PRoW Strategy*** (an updated version has been submitted at Deadline 3, document reference 8.4); ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1); and the ***OLEMS*** (document reference 8.7 updated and submitted at Deadline 3). These documents provide the basis for the mitigation which will be set out in final documents which must be approved by the relevant planning authority before onshore works can commence. Both of the Projects have this mitigation and Sizewell C would need to have similar requirements. It is therefore assumed that, with the exception of cumulative traffic impacts, these direct impacts would not be significant cumulatively as each project would mitigate their

ID	Written Representation	Applicants' Comments
		own impacts and unless projects had overlapping footprints there would be limited potential for cumulative impacts upon the same receptors. Given these mitigation commitments it is considered that these impacts would be of 'negligible' significance (see ***Table 30.71*** and ***Table 30.84***). **2. Visitors, or potential visitors, are aware of such impact(s):** Whether there is a perception of development by visitors or potential visitors (and therefore an actual pathway for impacts) will depend on two factors. Firstly, a development would need to be in the public eye and known to potential visitors. Although the Projects are Nationally Significant Infrastructure Projects they are not iconic (e.g. Crossrail, Sizewell C New Nuclear Power Station, Heathrow Airport) and unlikely to be widely known or understood as distinct by the general public or visitors. Indeed, this point is supported by the 2019 DMO Report[25] (The Energy Coast Implications, impact & opportunities for tourism on the Suffolk Coast) which states that "*Half of regional market [visitors who responded to the DMO survey living within 3 hours of the Suffolk Coast] (51%) unaware of EDF plans for Sizewell C whilst two-thirds (65%) unaware about SPR's plans"* (page 26). Thus even for Sizewell C, arguably an iconic project, awareness is generally low. It should be noted that the developers of Sizewell C do not expect the reported perceptions of potential visitors and their reported likelihood to visit the area to affect actual behaviour. The ES for Sizewell C[26] considered the behaviour of visitors during the construction periods of

[25] https://www.thesuffolkcoast.co.uk/shares/The-Energy-Coast-BVA-BDRC-Final-Report-2019.pdf
[26] EDF Energy (2020) The Sizewell C Project Environmental Statement Volume 2, Chapter 9, Socioeconomics.

ID	Written Representation	Applicants' Comments
		Sizewell B and Hinkley Point C nuclear power stations and found that there was no empirical evidence that the construction of these plants had a substantial effect on the sector. It is acknowledged in EDF's DCO Application that there may be some specific local issues and a Tourism Fund has been proposed by Sizewell C to mitigate against these. Secondly, visitors already in the area would need come into contact with construction activity or traffic effects and link that to the Projects. This would affect only visitors in the proximity of the onshore study area and as noted above, all traffic impacts on visitors (e.g. driver delay) were assessed as non-significant in EIA terms for the Projects. Cumulatively with SZC there is potential for significant impact and the Applicants continue to work with EDF and the Councils to understand and reduce these potential impacts. **3. Visitors, or potential visitors, react by changing their behaviour. For example, by changing the length of stay, where they chose to visit or the activities that they undertake:** The approach used in the DMO Report was based on the respondents predicting changes in their behavior at a future date. Studies have found that individuals are generally poor predictors of their future behaviour[27] [28]and are better at predicting the behaviour of others. People are unlikely to consider all the factors that will influence their behaviour in the future but will instead focus on their current situation and intentions at the point of being asked the question. What this means for the DMO Report is that the individuals' predictions of their behaviour are likely to be less

[27] Balcetis, E., and Dunning, D. (2011). Considering the situation: Why people are better social psychologists than self-psychologists. Self and Identity, 1-15 DOI:
[28] Poon et al, (2014) On the psychology of self-prediction: Consideration of situational barriers to intended actions. Judgment and Decision Making, Vol. 9, No. 3, May 2014, pp. 207–225

ID	Written Representation	Applicants' Comments
		accurate than if individuals had been asked to predict how other people would react to the Energy Coast developments. The respondents are likely to have overstated how they would react to any potential negative impacts because at the time of questioning the focus was on perceived deterrents, rather than the reasons why they would choose to visit. The Applicants note that within the DMO Report findings, 64% of individuals stated that SZC and the Projects would act as a deterrent to visiting, but despite this 58% stated that they would be no less or even more likely to visit the Suffolk Coast. This contradiction between stated behaviour and actual intention was noted in the literature review undertaken for the Projects (see ***Appendix 30.2*** (APP-571). The example given was for The Mountaineering Council of Scotland which surveyed their members in 2014 and stated that 56% of people would not revisit an area with windfarms[29]. When MCofS conducted another survey in 2016 and found that 77% of people had not in fact changed their behaviour[30]. **4. The change in behaviour results in a change in their level of spending;** See below. **5. These changes in visitor spending result in a change in the performance of the tourism sector, for example, a change in employment.**

[29] Mountaineering Council of Scotland. (2014) Windfarms and changing mountaineering behaviour in Scotland. [Online] Available at: https://www.mountaineering.scot/assets/contentfiles/pdf/mcofs-wind-farm-surveyreport_2014-reduced.pdf
[30] Mountaineering Council of Scotland. (2016) Windfarms and mountaineering in Scotland. [Online] Available at: https://www.mountaineering.scot/mountain-windfarm-research

ID	Written Representation	Applicants' Comments
		Biggar Economics has undertaken a study considering changes in visitor behaviour or spending in other areas where there has been offshore wind farm development provided in the ***Tourism Impact Review*** (REP1-102). The areas chosen were selected to match the wind farms used in the Applicants' original assessment. The key finding was that tourism employment trends in the studied areas did not suggest any relationship with the construction of the offshore wind farms, for either designated landscapes or other coastal areas. Typically, employment changed in line with the wider region during the construction period.
02	2. There are minimal local job opportunities during the construction phase of EA1N and EA2 and none post construction to offset the potential loss of jobs in the local tourism/service sector.	There will be job opportunities at the local and regional scale during construction with regard to both onshore and offshore activities. ***Section 30.6.1.1*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078) Impact 1a: Onshore Construction Employment covers onshore construction related employment. Peak staff on site would be 249, with full time equivalent (FTE) employment an average of 167. It is estimated that 36% of the construction workforce could be local (i.e. within a 60-minute drive). ***Section 30.6.1.2*** Impact 1b: Offshore Construction Employment covers offshore construction related employment. It is estimated that 100 - 300 direct FTE could be generated regionally (within the New Anglia Local Enterprise Partnership (NALEP)). This is likely to be generated from installation and commissioning work, with the manufacturing assumed to be outside the region. Nationally, FTEs from manufacturing would range from 1,600 to 4,100. During operation job opportunities would be offshore as the substations would be unmanned and minimal maintenance is envisaged. ***Section 30.6.2.1*** Impact 1: Long Term Employment covers operational employment. It is estimated that regional offshore direct employment would be between 100 – 300 FTE jobs. These would be jobs related to

ID	Written Representation	Applicants' Comments
		the operation and maintenance of the offshore windfarm itself. There is potential for a further 100 – 400 FTE jobs within the supply chain regionally. Nationally there would be further FTEs associated with the supply chain. Onshore requirements would be limited to maintenance only as the substation will be unmanned. The job losses envisaged by SASES are not a result of the Projects, but relate to assertions on downturns in the visitor economy as a result of proposed future cumulative projects.
03	3. To date there is little evidence of meaningful skills training and enhancement despite a Skills Strategy being agreed with Suffolk County Council in 2015. A proposed MOU is not legally binding and furthermore there is no evidence of proper funding or targets being set.	SPR has developed and delivered multiple skills programmes in East Anglia both independently and in collaboration with other developers and local stakeholders, covering both education and employment readiness programmes. This includes but is not limited to: • The creation of the SPR apprenticeship programme; • Supporting the Offshore Wind Skills Centre to ensure the training of 26 adult learners for the industry; • Carrying out Science Technology Engineering and Mathematics (STEM) Inspiration workshop to over 3,000 young people; and • Supporting local internships such as The East Coast Energy Internship programme (Ogden Trust). Engagement under the Memorandum of Understanding (MoU) ensures collaboration and continuous improvement of activity that benefits local education and economy.

ID	Written Representation	Applicants' Comments
04	4. There will be no perceived benefit to local services or infrastructure – instead considerable additional strain on the road network and environmental harm.	Please refer to other sections regarding assessments of effects. The Applicants will respond to SASES comments on traffic and transport at Deadline 4.
05	5. There are considerable implications for the wider East Suffolk economy in the efficient allocation of the elements of capital – natural (destructive); investment (prioritisation); human and social (disruptive and dilutive) - and how to maintain a balanced local economy. Scottish Power has not fully assessed the impacts of EA1N or EA2 (and the cumulative impact of all the proposed offshore projects and Sizewell C) in the context of the East Suffolk economy.	In terms of socio-economics (i.e. labour market, skills etc.) the Councils have agreed all aspects of the assessment through their SoCG with the exception of cumulative impacts. The Applicants provided updated information with regard to cumulative impacts with SZC at Deadline 1 (see ***Socio-Economics and Tourism Clarification Note (SZC CIA))*** (REP1-036).
06	6. The socio-economic analysis conducted by Scottish Power is poor and incomplete. In particular it has not: a. engaged with the Report commissioned by the Suffolk Coast Destination Management Organisation (ref one – executive summary, ref 2 - full report), it seems to refer to rely upon TripAdvisor analysis; b. analysed the effect on inward investment, people who choose to move here in later life for its peace and tranquillity having spent their working life in other parts of the UK or the world; c. fully addressed the impact on the East Suffolk economy	a) The DMO Report was published in September 2019, this was too late for its conclusions to be considered within the ES. The Applicants have been in consultation with The Suffolk Coast Destination Management Organisation (DMO) since early 2018 (see ***Consultation Report, Table 4.7*** (APP-029)). The Applicants would have included the findings of the DMO report within the EIA if available within the timescales of the Projects' assessment. It is the Applicants' view that this would have provided extra context on receptor sensitivity (taken as a generalised Suffolk coast visitor) but not ultimately changed the impact conclusions for the Projects. The Applicants consider that given the temporary nature and limited geographic extent of the construction impacts of the Projects, the sources of information and methodology used in the desk-based assessment are proportionate and appropriate. The Trip Advisor study was conducted to supplement other studies, included in the assessment, ***Chapter 30*** (APP-078) and ***Appendix 30.2*** (APP-571). ***Appendix 30.2***

ID	Written Representation	Applicants' Comments
		(APP-571) reviewed 24 studies undertaken from 2002 until 2017, 16 UK based and eight reports from outside of the UK for comparison. Biggar Economics has undertaken a study considering changes in visitor behaviour or spending in other areas where there has been offshore wind farm development provided in the ***Tourism Impact Review*** (REP1-102). The areas chosen were selected to match the wind farms used in the Applicants' original assessment. The key finding was that tourism employment trends in the studied areas did not suggest any relationship with the construction of the offshore wind farms, for either designated landscapes or other coastal areas. Typically, employment changed in line with the wider region during the construction period. b & c) In terms of socio-economics (i.e. labour market, skills etc.) the Councils have agreed all aspects of the assessment through their SoCG with the exception of cumulative impacts. The Applicants provided updated information with regard to cumulative impacts with SZC at Deadline 1 (AS-046).
07	7. The evidence to date indicates that these projects will only be damaging to the local economy and there is no meaningful offset in terms of long-term jobs or long term skills and training enhancement.	The Lowestoft East Anglia ONE operations and maintenance (O&M) Facility has over 100 long-term full-time jobs associated with operation and maintenance of the windfarm. The Applicants' engagement with both industry and education, through all phases of the Projects, means a continuous focus on the creation and development of up to date industry relevant initiatives being in place. Working with both the local groups, such as Skills for Energy, and also the local colleges means that the implementation of content, material and programmes are all as per the future industry standards. The Applicants, as responsible employers, have a key focus on the creation and sustaining of long term skilled roles within the region.

<table>
<tr><th>ID</th><th>Written Representation</th><th>Applicants' Comments</th></tr>
<tr><td>08</td><td>8. Accordingly we believe the applications are deficient in respect of socio-economic impacts and contrary to section 5.12 of EN-1.</td><td>Section 5.12 of EN-1 states the following::
<table>
<tr><th>EN-1 paragraph</th><th>Applicants' Response</th></tr>
<tr><td>5.12.2 Where the project is likely to have socio-economic impacts at local or
regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES (see Section 4.2).</td><td>See below</td></tr>
<tr><td>5.12.3 This assessment should consider all relevant socio-economic impacts, which may include:</td><td>See below</td></tr>
<tr><td>• the creation of jobs and training opportunities;</td><td>Chapter 30 Tourism, Recreation and Socio-Economics, section 30.3.3 (APP-078)

Also see response to rows 03 and 07 above.</td></tr>
<tr><td>• the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;</td><td>See response to rows 03 and 07 above.</td></tr>
<tr><td>• effects on tourism;</td><td>Chapter 30 Tourism, Recreation and Socio-Economics, sections 30.6 and 30.7 (APP-078)</td></tr>
</table></td></tr>
</table>

ID	Written Representation	Applicants' Comments	
			Additional information has been provided post-application in ***Applicants' Responses to Examining Authority's Written Questions Appendix 13 Tourism Impact Review*** (REP1-102) and ***Socio Economics and Tourism Clarification Note*** (REP1-036)
		• the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development; and	This has been assessed in terms of the numbers of jobs created at various spatial scales for construction and operation in ***Chapter 30 Tourism, Recreation and Socio-Economics***, ***section 30.6*** and ***30.7*** (APP-078). Whilst employment opportunities would be created by the Projects, with long term opportunities in particular for offshore O&M jobs, given there would be no large-scale job creation in the Friston area there would be no "effects on social cohesion" from a large influx of workers.
		• cumulative effects – if development consent were	This was addressed in ***Chapter 30 Tourism,***

ID	Written Representation	Applicants' Comments	
		to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region	***Recreation and Socio-Economics***, ***section 30.7*** (APP-078). This was a key concern of the Councils particularly with the labour requirements for SZC, which the Applicants have addressed in ***Socio Economics and Tourism Clarification Note*** (REP1-036).
		5.12.4 Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.	This was addressed in ***Chapter 30 Tourism, Recreation and Socio-Economics, section 30.5*** (APP-078).
		5.12.5 Socio-economic impacts may be linked to other impacts, for example the visual impact of a development is considered in Section 5.9 but may also have an impact on tourism and local businesses.	The importance of contributing factors (e.g. air, noise, traffic, landscape) to the assessment is recognised and these inter-related assessments are used to inform the socio-economic assessment in ***Chapter 30 Tourism, Recreation and Socio-Economics***, ***section 30.6*** and ***30.7*** (APP-078).
		5.12.6 The IPC should have regard to the potential socio-economic	n/a – this is a matter for the ExA not the Applicants.

ID	Written Representation	Applicants' Comments	
		impacts of new energy infrastructure identified by the applicant and from any other sources that the IPC considers to be both relevant and important to its decision.	
		5.12.7 The IPC may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).	n/a – this is a matter for the ExA not the Applicants.
		5.12.8 The IPC should consider any relevant positive provisions the developer has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts.	n/a – this is a matter for the ExA not the Applicants.
		5.12.9 The IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike.	n/a – this is a matter for the ExA not the Applicants.

ID	Written Representation	Applicants' Comments
		In conclusion, the Applicants have undertaken the assessment in line with all of the above provisions of the NPS.
09	9. Further given the statistics and conflicting statements of economic benefits it would be of assistance if a truly independent and objective expert report was put together of the socio-economic impacts on the local economy of these projects, Sizewell C and the other energy projects which are planned for this area.	The Applicants have assessed the impacts of the Projects and those cumulative projects where information is available (i.e. Sizewell C).
Overview of the East Suffolk Economy		
10	10. Section 5.12.4 of the Overarching NPS for Energy (EN1) requires an examination of the socio-economic conditions in the areas surrounding the proposed development. We have sought to measure the proposals against the perceived economic strengths and the social needs; to ensure the proposals do not upset the balance and efficient allocation of resources (the various components of capital) and balance the demands of economic growth, social fabric and preserving a vital national and local amenity. As background, we show at Appendix 1 East Suffolk Council Employment and GVA (Gross Value Added) by sector. The figures show a substantial, diverse and dynamic local economy although there are known pockets of deprivation.	No comment.
11	11. We do not consider that the applicant has properly assessed the existing socio-economic conditions in East Suffolk and certainly not the individual characteristics of the area most affected by the proposals. Those characteristics include the following. - The economy, employment and prosperity have expanded on the diversity of the economic drivers so it is not reliant on any one sector and a high proportion have growth potential.	***Chapter 30 Tourism, Recreation and Socio-Economics***, ***section 30.5*** (APP-078) provides a review of the existing socio-economic conditions at a resolution that is appropriate for EIA. The elements of the economy listed by SASES are all covered within the baseline (e.g. ***Table 30.26***), with the assessment undertaken on those elements of the economy for which there is a pathway for impacts (i.e. ports, construction, and the hospitality and tourism sectors).

ID	Written Representation	Applicants' Comments
	- Reflecting the characteristics of the coastline, they also tend to be concentrated in clusters. - Digital technology and the BT Adastral Park at Martlesham/Ipswich. East Suffolk Council (ESC) has a close strategic alliance with the Ipswich Strategic Planning Area. - Ports and transportation (Felixstowe, Ipswich and Lowestoft). - Agriculture (Central and coastal areas) - Real Estate derived from expanding commercial opportunities and residential developments. - Retail and business Parks (Martlesham, Felixstowe, Rendlesham, Lowestoft). - Tourism and Visitor Economy. There are two distinctive but complementary areas. The coast between Woodbridge and Southwold for rural recreation; north of Southwold to Lowestoft for family holiday parks and attractions/activities.	In their SoCG with the Applicants (REP1-072), the Councils have stated that the presentation of the existing environment and the assessment methodology is agreed (see ***Table 33***)
The Creation Of Jobs And Training Opportunities		
12	12. We are supportive of the opportunities for Lowestoft and it becoming a local support centre for servicing the offshore elements of these projects, albeit they do not appear substantial when considered in the terms of the overall multi billion pound investment budget of these projects. Furthermore many of the publicised investments do not merely serve a single project but many of the projects already developed or proposed to be developed. There is a complete lack of clarity in this regard.	£25million has been invested in a state-of-the-art new operations and maintenance base at Lowestoft Port, delivering 100 long-term skilled jobs, with thousands of supply chain operators using the site and nearby facilities for the lifespan of the windfarm. A further £5 million was co-invested in Great Yarmouth Port to prepare the facility for construction and assembly of the turbine components. Investment to date is solely for East Anglia ONE. There will be further investment relating to future projects.

ID	Written Representation	Applicants' Comments
		The Applicants have a key focus on engaging with local suppliers and continue to work with local stakeholders and industry groups such as East of England Energy Group to maximise benefit of local content for the existing and future windfarms in East Anglia. Regular updates are provided to the supply chain on the projects.
13	13. Scottish Power assess the magnitude of peak employment onshore of 243-249 (say 250) during a construction period of three years. This is a civil engineering project so it is unlikely that many will be sourced from the immediate area. Instead it is estimated that just 36%, 90 jobs are described as 'resident' sourced from East Suffolk, Ipswich, Lowestoft and Great Yarmouth areas, some 60 minutes' drive away. The remainder will be sourced from the wider NALEP area – 120 jobs, 48% and 40 jobs (16%) In broad terms the benefit impact on jobs is at best minimal during the construction phase.	It would be more accurate to express this in terms of full-time equivalents (FTE) as has been done in the assessment. This estimates that there would be an average of 167 FTE directly employed during onshore construction with indirect and induced employment increasing the total to 265 FTE per year (***Table 30.47***). The magnitude of the effect is considered low. For offshore construction 100 – 300 FTE would be supported (***Table 30.58***). The magnitude of the effect is considered low.
14	14. In the operational phase, it is acknowledged that there will be no full-time jobs.	As the substations would be unmanned there would be no *onshore* operational jobs created. Based upon East Anglia ONE it is expected that there will be at least 100 FTE per year for offshore O&M per Project (***Table 30.74***). The magnitude of the effect is considered low. It should be noted that this represents continuous employment over several decades with wages above the national average. This type of employment opportunity is sufficient to drive other effects. People would move to an area where well paid, long-term employment is available. Similarly, young people may aspire to work in this sector which provides well paid, secure employment. These effects would lead to further effects such as investing in housing, higher local expenditure, growing families, and supporting communities.

ID	Written Representation	Applicants' Comments
15	15. Skills and Training Enhancement (C30.3.33.1) - We appreciate the desire expressed in the Memorandum of Understanding (MoU) to maximise the training and re-skilling opportunities arising from the projects; but these mostly relate to the manufacturing and supply chains of the offshore facilities. We consider these should be quantified and judged proportionately. Much of the supply chain including infrastructure manufacturing will be outside the East Suffolk / NALEP area. So, just as we question the employment benefits, the training and development opportunities should be assessed against the wider investment opportunities reflected in the strength and diversity of the wider East Suffolk economy.	The Applicants demonstrate support for training and reskilling through the development of the offshore wind apprenticeship programme and the continuation of the support of the Offshore Wind Skills Centre[31] in both a time and monetary basis. The East Anglia ONE windfarm has created over 100 long term positions locally at the operation and maintenance facility in Lowestoft, for the lifetime of the project. The MoU enables the Applicants to support local training and development opportunities as the local needs are developed.
16	16. Scottish Power refers (section 30.3 .3 .12 skills and training enhancement) and the MOU with Suffolk County Council. However despite this being in place since 2015 there no evidence that this enhancement has developed anything meaningful when set against the potential risk to the visitor economy.	The MoU with SCC, which includes the Projects, was signed by all three parties on 8th July 2020. The development of the offshore wind apprenticeship programme demonstrates SPR's commitment to providing entry level positions into the industry. Careful consideration was made to ensure that skills base and discipline would offer the new apprentices a sustainable career in offshore wind. The Applicants are committed to the continuation of this programme which promotes responsible growth and sustainable careers.
17	17. In June 2020 Scottish power launched an apprenticeship programme in Lowestoft. However this programme amounted to the employment of a mere two apprentices…..the text below is an article from the Lowestoft Journal (22 June 2020) under the headline "'Fantastic opportunities' as new apprenticeships are unveiled" "Scottish Power Renewables is seeking people with a passion for science, maths, engineering, problem solving and those with good communication	

[31] The East of England's new Offshore Wind Skills Centre is a pioneering employer-led initiative designed to arm people with the training and qualifications they need to start rewarding careers now and for the future. The Centre's courses are geared to help workers and employers alike. It retrains adults for new careers and college-leavers for their first jobs. Its location in Great Yarmouth puts it at the heart of the industry, which it serves through local harbours and companies. https://www.offshorewindskills.co.uk/

ID	Written Representation	Applicants' Comments
	skills and a strong team ethic to serve as mechatronics maintenance apprentice technicians on the windfarm being developed 30 miles off the Suffolk coast. Based at East Coast College Lowestoft campus, the two long-term apprenticeships are open to those with four GCSEs A-C/4-9 grades in English, Maths and Science."	
18	18. The experience in Scotland should also be noted where the development of offshore wind has not delivered what was expected - see Appendix 3.	The Offshore Wind Sector Deal[32] and the "Ten Point Plan for a Green Industrial Revolution" provide the latest estimates for current and future employment in the sector: There are more than 460,000 jobs in low carbon businesses and their supply chains, employing people in locations right across the country and 7,200 are directly employed in offshore wind. The Government estimates that offshore wind could support 60,000 jobs across the UK by 2030, covering all aspects of a wind farm; project management, construction and operations and maintenance. With the industry committed to sourcing 60 per cent total lifetime UK content and increasing UK content in the capital expenditure phase, there will also be a need for highly skilled workers in manufacturing areas throughout the supply chain.
The Provision Of Additional Local Services And Improvements To Local Infrastructure		
19	19. The developer proposes alterations to the local transport routes which will diminish the characteristics of the area and they underestimate the	The Applicants will respond to SASES comments on traffic and transport at Deadline 4.

[32] Department for Business, Energy & Industrial Strategy (2019). Offshore Wind Sector Deal. [Online]. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/786278/BEIS_Offshore_Wind_Single_Pages_web_optimised.pdf

ID	Written Representation	Applicants' Comments
	scale of transportation impacts -see Written Representation concerning Transport & Traffic.	
Effects On Tourism & Cumulative Impact		
20	20. Visitors tend to have common interests in the area with those of residents. Seeking peace and tranquillity there is a substantial cottage self-catering and bed and breakfast sector. There is a growing mix of small-scale caravan/holiday home sites with on-site facilities spread across the area. These are in addition to more traditional hotels found in Aldeburgh and Southwold. The accommodation sector is especially fragmented in the area with primarily private and individual ownerships. Accordingly, meaningful statistics are difficult to find.	The Applicants used the Office for National Statistics' Nomis resource which provided detailed and up-to-date UK labour market statistics from official sources. Additional information came from sources such as Destination Research's Economic Impact of Tourism of Suffolk Coast and Heaths AONB (2017). In their SoCG with the Applicants (REP1-072), the Councils have stated that the presentation of the existing environment and the assessment methodology is agreed (see ***Table 29***), the only outstanding issue being the assessment of visitor perception.
21	21. Many do not advertise as they have repeat visitors and there is a pool of those providing accommodation for visiting artists and students to Snape Maltings. Overall, there are limits to expansion in the immediate area, not least to preserve the environment.	
22	22. Its proximity to major urban areas makes it a favourite destination for day and short-term visitors and these characterise most of all the tourism/visitor sector.	
23	23. In assessing the potential impacts on tourism, we have drawn on three reports. I - Economic Impact of Tourism, East Suffolk 2018 by Destination Research Ltd Headline Figures are shown at Appendix 2 Key figures:	The Applicants used the previous iteration (Destination Research 2017) (***section 30.5.2.8*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078)) of the Destination Research report in the Applications. The DMO Report was published in September 2019, this was too late for its conclusions to be considered within the Applications.

ID	Written Representation	Applicants' Comments
	- Total number of trips (day and staying) 12,700,000 of which - Total staying trips 686,000 - Total day trips 12,014,000 - Total Tourism Value £671,710,000 - Full time equivalent jobs 10,446 - Total actual tourism related employment 14,153 II - Energy Impact on Suffolk Coast 2019, commissioned by the Suffolk Coast Destination Management Organisation (DMO) https://www.thesuffolkcoast.co.uk/shares/The-Energy-Coast-BVA-BDRC-Executive-Summary-2019.pdf	
24	24. The key findings of this report: - The combination of the construction of Sizewell C and SPR infrastructure is found to deter some 64% on visiting intentions which could cost the tourism sector at least £24million pa - During construction the net loss of natural landscapes, tranquillity, nature and the region's unique charms are the concerns most likely to deter visitors - 58% of businesses expected annual turnover to decrease during the construction period, the majority expecting a fall of at least 20% and 23% annual decreases of more than 50%. Accommodation providers felt particularly vulnerable. - Projecting the core analysis further, it is estimated that at least 400 full time equivalent local jobs are at risk.	The Applicants consider that the DMO Report supports some of the conclusions of the EIA. It is worth noting that although the DMO Report tried to disentangle the Projects from SZC (in terms of respondent's knowledge of the different projects), the headline results on monetary impact are based on the cumulative position and not the Projects alone. There is no attempt to assess the impact of the Applicants' Projects without SZC. The DMO Report cannot be used to support any conclusions with regard to the Projects alone. The Applicants do not endorse the estimated figure of monetary losses to the tourism industry set out in the DMO Report. Please note that the EIA Applications do in fact conclude that there is the potential for significant cumulative impacts with SZC. These impacts were not quantified due to the absence of final details from EDF Energy on their proposals (note that at the request of the Councils, the Applicants have reviewed the SZC DCO application and provided

ID	Written Representation	Applicants' Comments
	- Consideration for holidays during infrastructure development falls 21%; for days out by 9%. - Nature related reasons are the main motivations for those considering visiting the Suffolk Coast in future. - Significant investment will be required to ensure the Suffolk Coast brand is not dominated by energy and that the region does not fall further behind the regional competition.	updates for cumulative effects with SZC ***Socio Economics and Tourism Clarification Note*** (REP1-036). The relevant points from the DMO Report for the Projects are: • The two main reasons reported for visiting the Suffolk Coast were for its undisrupted natural beauty and its beaches. The most popular reason as to why respondents would not consider the Suffolk Coast is because there are "*other places I would rather visit"* (page 34). Less than half of those surveyed are aware of *"what there is to see and do on the Suffolk coast"* (page 32). This highlights the competitiveness of the UK tourism market and that potential visitors do not know what Suffolk Coast has to offer. • The main concerns voiced with regard to the SZC and the Projects were disruption to the natural beauty of the area, and traffic and congestion; notably most participants travelling to the Suffolk Coast by car (79-97%). The main concerns voiced by visitors and businesses were similar: loss of tranquillity, traffic congestion, loss of AONB, damage to habitats and road obstructions. All of these concerns are impacts assessed within the Projects' EIAs. • Construction and construction traffic were key concerns related to energy development, there were no reported concerns regarding operation effects (onshore or offshore). Again, this supports the assumption within the Applications on long term effects. • When visitors were asked about the developments, half of regional market (51%) unaware of EDF plans for SZC whilst two-thirds (65%) were unaware of SPR's plans. Only a small number (7% for EDF / 5% for SPR) knew a lot about the plans. This is reflected in the EIA which highlights that 'iconic projects' (such as SZC) are more likely to cause concern.

ID	Written Representation	Applicants' Comments
		• Once all participants were briefed to the same level about the developments, 64% of individuals stated that they would act as a deterrent, despite this 58% stated that they would be no less or even more likely to visit the Suffolk Coast. This contradiction between stated behaviour and actual intention was noted in the literature review undertaken for the Projects (see ***Appendix 30.2*** (APP-571). It is the Applicants' view that the DMO Report would have provided extra context on receptor sensitivity (taken as a Suffolk coast visitor) but not ultimately changed the impact conclusions for the Projects. The Applicants consider that given the temporary nature and limited geographic extent of the construction impacts of the Projects, the sources of information and methodology used in the desk-based assessment were proportionate and appropriate. Biggar Economics has undertaken a study considering changes in visitor behaviour or spending in other areas where there has been offshore wind farm development provided in the ***Tourism Impact Review*** (REP1-102). The areas chosen were selected to match the wind farms used in the Applicants' original assessment. The key finding was that tourism employment trends in the studied areas did not suggest any relationship with the construction of the offshore wind farms, for either designated landscapes or other coastal areas. Typically, employment changed in line with the wider region during the construction period. The Applicants note that the concerns raised in the DMO Report regard construction, not the long-term operation of energy infrastructure.
25	25. The same report identifies opportunities to develop tourism in the region in order of desirability:	No comment.

ID	Written Representation	Applicants' Comments
	- Specialist interest tours in natural areas of beauty and wildlife. - More public transport links between main tourist towns and villages. - Detailed on-line guides and apps for independent exploration - Being able to see high quality art and culture. - Development of cycling offer - More opportunities to participate in learning or hands-on activities - More spas / wellness retreats. - More indoor family attractions	
26	26. It is important to note that this research took into account only the EDF Energy Sizewell C nuclear power station and SPR's planned construction. Accordingly it does not consider the cumulative impacts of the six additional projects in the pipeline which involve further cable entry points along the fragile coast, cable corridors and haul roads which will add further disruption and scarring of the landscape over a period of up to ten years and being further deterrents to tourism when the sector needs reassurance to recover from the impact of the Covid-19 pandemic. III - Covid-19 – Online Tourism Business Survey - May 2020 prepared for East Suffolk Council This survey is relevant since - it highlights the fragmented and fragile structure of the tourism economy – the majority of businesses are self-employed, sole-traders and micro businesses.	The Applicants note that other offshore energy developments have been proposed for the east coast. Following the guidance in Planning Inspectorate Advice Note 17, the below projects were not considered in the CIA because at the time the Projects CIA was written there was inadequate detail upon which to base any meaningful assessment (with no information on, for example, the project design or timescales). The Applicants note that there are no substantive updates on the progress of North Falls or Five Estuaries since the Applications were submitted. The progress of these projects can be compared with other projects in the 2017 Extension leasing round. Sheringham Shoal and Dudgeon Extensions received a Scoping Opinion in November 2019 and are expected to proceed to section 42 consultation in April 2021. Rampion Extension received a Scoping Opinion in August 2020. The latest information[1] from North Falls is that scoping expected early in 2021, with a DCO application not expected

[1] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010119/EN010119-Advice-00002-1-201106%20North%20Falls%20Inception%20Meeting%20Note_FINAL.pdf

ID	Written Representation	Applicants' Comments
	- Two in five businesses are unlikely to survive should restrictions remain until the end of 2020. - Half of businesses would need up to three months to get back to normal levels with a quarter requiring between six and twelve months or even longer. - Crucially, seven in ten believe that promoting the area would build consumer confidence.	until mid-2023. Five Estuaries have not provided an indicative programme to the Planning Inspectorate at this stage[2]. Each of these projects is nationally significant and therefore will require its own EIA and as part of that process will need to undertake a cumulative assessment. Each of the above projects will therefore consider the Projects in each of their respective EIAs as they progress through the planning process. Covid 19 emerged after submission of the Applications. The Applicants are in discussion with the Councils on the implications of Covid 19. In the SoCG with the Councils it is agreed that *"All parties acknowledge that the situation with Covid-19 will have unknown implications for the socio-economic baseline. The MoU between the Applicants and the Councils will provide a flexible mechanism to enable targeted action to address current uncertainties".* The Suffolk Chamber of Commerce has noted in their WR (REP1-183) that *"At a time when young people are most likely to be on Universal Credit or made unemployed because of COVID-19, approval of offshore wind projects would have a major boost on our local economy and help our young people continue their career paths and training in order to work in the offshore wind/renewables sectors".*
Conclusion in relation to Tourism and Cumulative Impact		
27	27. Scottish Power has failed to assess in detail the tourism sector, least of all address the issues contained in the DMO Report. Instead, it has relied on desk-based research drawn from Trip Advisor reviews of hotels and	The DMO Report was published in September 2019, this was too late for inclusion within the ES. As discussed in (24) above, the Applicants do not believe that this report would have affected the outcome of the EIA.

[2] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010115/EN010115-Advice-00001-1-191128_Galloper%20Extension.%20Meeting%20note.pdf

ID	Written Representation	Applicants' Comments
	holiday lets etc. (S 6.1.30) Other than highlighting the quality of these properties, it is not very meaningful. It fails to recognise that visitors come to the area to enjoy its sensory attributes and seek properties across the area which offer seclusion, peace and tranquillity. They form bases for wider exploration by walking and cycling. It further explains the fragmented structure of the sector.	The Trip Advisor study was conducted to supplement other studies, included in the assessment, ***Chapter 30*** (APP-078) and ***Appendix 30.2*** (APP-571). ***Appendix 30.2*** (APP-571) reviewed 24 studies undertaken from 2002 until 2017, 16 UK based and eight reports from outside of the UK for comparison. The National Coastal Tourism Academy conducted research into why visitors choose to visit coastal areas and nearly half of the respondents indicated that they used information from the internet to inform their decision. As such, a survey of Trip Advisor reviews was considered robust as it would be a proxy for how visitors would get an impression of the area. In addition, given the large sample size (12,700 reviews) it was felt this would capture widely held opinions. As previously discussed, Biggar Economics has undertaken a study considering changes in visitor behaviour or spending, which was submitted at Deadline 1, ***Tourism Impact Review*** (REP1-102).
28	28. In sum, we disagree with Scottish Power's conclusions concerning socio-economic impacts and this is the result of a defective assessment contrary to Section 5.12 of EN-1.	Please refer to item 08 for discussion of compliance with NPS EN-1
The Impact Of A Changing Influx Of Workers		
29	29. Other than they are hardly going to be popular digging up and destroying our environment, the relatively small numbers are not thought to have much of an impact.	No comment.
30	30. In this area the Sizewell C is a major source of worry with a projected work force of up to 8,500 and extending over a 9-12-year project lifespan and where the implications are substantial.	The Applicants note the concerns; however, this point does not relate to the Projects. This relates to SZC.

ID	Written Representation	Applicants' Comments
Loss of Inward Investment		
31	31. The flow of inward personal and business investment is substantial being based on the area being an attractive place to live and visit. This is attributable to the environmental attributes of open spaces for peace and tranquillity and the diversity of recreational and cultural activities.	The Applicants note these comments. The impacts of the Projects will occur during the relatively short period of construction. The Applicants continue to look at ways in which these impacts can be reduced further to limit the construction phase impacts. The Applicants have now confirmed (***Project Update Note***, REP2-007) that should both the East Anglia ONE North project and the East Anglia TWO project be consented and then built sequentially, when the first project goes into construction, the ducting for the second project will be installed along the whole of the onshore cable route in parallel with installation of the onshore cables for the first project. This will include installing ducting using a trenchless technique at the landfall for both the Projects at the same time. This commitment will reduce the footprint of works for cable installation for the second project, reduce the duration of works and ensure that the most disruptive parts of the process (such as open trenching and trenchless crossing at the landfall) occur only once.
32	32. Traditionally this area has been and continues to be attractive to retirees – they come armed with their accumulated financial resources, professional skills and experience which they then apply to their preferred pursuits and often that involves physical and financial voluntary contributions to local organisations and institutions.	
33	33. Second-home owners, most of whom are anticipating retirement but increasingly also seeking investment for holiday rentals. They have an interest in preserving the characteristics of the area.	
34	34. Increasingly in the current Covid-19 pandemic, there is renewed interest by younger members of society in establishing services and businesses in rural environments like Friston. This is the result of an upturn in homeworking and decreasing reliance on commuting to large towns and cities. This interest is important because it renews an ageing population and provides for sustaining the social fabric of the community. Friston enjoys a moderately fast broadband which facilitates homeworking. Accordingly, activity such as that proposed by Scottish Power risks driving such renewal away.	
35	35. The investment comes in many forms: - purchase of properties - usually accompanied by refurbishment	

ID	Written Representation	Applicants' Comments
	- followed by property and household maintenance. - Capital projects financed by a mix of grants and local fundraising, such as libraries, community centres and recreational facilities. The regeneration of the Snape Maltings complex has had a substantial impact on the economy. A further major expansion of its facilities is on hold during the Covid-19 pandemic. - The introduction of niche and high-end retail brands in the High Streets of certain areas, notably Woodbridge, Aldeburgh and Southwold. - The DMO Report discussed above identifies wide-ranging investment opportunities in the visitor economy. - Housing developments.	
36	36. Owing to limits on the supply of labour locally, many of the contractors for the larger projects are drawn from the same Economic Study Area (i.e. within 60 minutes' drive) as that of the SPR development.	None of these trades will overlap with the Civil Engineering roles required by the Projects.
37	37. However, that still leaves a very strong demand for local labour – artisans with specialist skills in the property maintenance trades (plumbers, electricians, joiners, small builders, garden maintenance). Also, for the care sector and service economy.	
38	38. These are all key drivers of the local economy not to be disrupted by the introduction of capital-intensive projects and the disfigurement of the valuable landscape.	
39	39. A Scottish Power has carried out no assessment of the impact of the projects on this part of the local economy.	The Applicants consider that the assessment was proportionate and appropriate. In their SoCG with the Applicants (REP1-072) the Councils have stated that the presentation of the existing environment and the assessment

ID	Written Representation	Applicants' Comments
		methodology is agreed, the only outstanding issue being the assessment of visitor perception.
	The accumulation of energy projects which are invariably NSIPs will cause, indeed is already creating, major disruption and distortion of the East Suffolk economy. As NSIPs ultimate decisions are taken away from the Local Authorities and cut across their own Local Plans	The Suffolk Chamber of Commerce has noted in their WR (REP1-183) that "*The offshore wind sector has proven to be a key economic driver in the East of England, especially around Great Yarmouth and Lowestoft where a number of businesses have based themselves in order to help with the commissioning, building, and maintenance of offshore wind. Not only this, but East Coast College in Lowestoft, and a number of businesses based in the area are directly involved in the upskilling, training and qualification of individuals to work on offshore wind farms, most noticeably those leaving further/higher education. A recent survey by Suffolk Chamber of Commerce found that approximately 33% of businesses may make 1-5 members of staff redundant as a result of COVID-19. At a time when young people are most likely to be on Universal Credit or made unemployed because of COVID-19, approval of offshore wind projects would have a major boost on our local economy and help our young people continue their career paths and training in order to work in the offshore wind/renewables sectors".*

2.12 Construction – Substation Site

ID	Written Representation	Applicants' Comments
Summary		
01	1. The noise, vibration, light pollution, the creation of dust, contamination and impact on the air quality, traffic, flooding, and general disruption, the loss of historic footpaths, the use of heavy plant & machinery and construction traffic on small rural roads will be a significant disruption to people's lives. The inappropriate location selected by the Applicant has magnified these impacts.	Impacts relating to noise, vibration, light pollution, air quality, traffic and flooding are all assessed as not significant following the application of appropriate mitigation. The Applicants have committed to adopting the various mitigation measures set out in the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) and ***Outline Construction Traffic Management Plan*** (an updated version has been submitted at Deadline 3, document reference 8.9) to minimise disruption during construction. With regard to loss of historic footpaths, the Applicants note that the onshore substations and National Grid infrastructure are proposed to be located on part of the historic parish boundary of Friston. Further information regarding the Applicants' assessment of this is provided in ***Archaeology and Cultural Heritage Clarification Note*** (REP1-021) submitted at Deadline 1. With regard to the onshore substation locations, the Applicants refer to their response provided in rows 01-04 of ***Table 2.1 Site Selection***.
02	2. The village Church is seriously affected both visually and as a focus for community life by the proposed construction works. The Church of St Mary the Virgin is 100's of years old, it's an historic building in a prime location in the village, within a short walk to the substation – the church is used for local quiet prayers, weddings and funerals - it's central to village life and those who visit including tourists alike. The village green and village hall are used for local fund-raising events such as Open Gardens, afternoon teas, Classics on the Green, the Christmas Fayre, local charity events and other local community gatherings. The noise and disruption from the long	With regard to visual impacts on the Church of St Mary, please see the Applicants' ***Archaeology and Cultural Heritage Clarification Note*** (REP1-021) submitted at Deadline 1. For clarity, and with regard to the construction duration at the onshore substations, it is expected that the longest period required for construction will be 30 months. For the National Grid substation the construction duration will be up to 48 months (see the initial high-level indicative programme in ***section 6.9*** of ***Chapter 6 Project Description***

ID	Written Representation	Applicants' Comments
	construction period over many years will create stress and anguish for residents, affecting their health and well-being, it will reduce the number of tourists and visitors who come to the area for its tranquil setting and history, to listen to music, enjoy the views and walk the local footpaths that will be destroyed if this development is allowed to proceed – see further Written Representation – Cultural Heritage	(APP-054)). As described in response to the comment, the Applicants have committed to the mitigation measures set out in ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) which will help minimise noise and disruption to non-significant levels. Construction activities would normally be conducted during Monday to Friday working hours of 7am to 7pm and Saturday working hours of 7am to 1pm. As secured under Requirement 23 and Requirement 24 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). Working hours are not proposed for Sundays or Bank Holidays. Exceptions to these working hours for the works are described in ***section 6.9*** of ***Chapter 6 Project Description*** (APP-054). The Applicants note SASES' referral to their Written Representation on Cultural Heritage. Please see the Applicants response to this in ***Table 2.4*** of this document.
03	3. If the Planning Inspectorate recommends that the projects proceed various headings explaining the construction issues and impacts are discussed below including working hours, noise, air quality emissions, dust, traffic and onsite management of plant and equipment, light pollution and flooding. A number of serious concerns have been identified that need to be resolved. These concerns should be ratified in an amended version of the Outline Code of Construction Practice (OCoCP) to be stipulated as part of any award of a construction contract to be incorporated into the Code of Construction Practice when formally agreed and issued.	Noted. The Applicants have responded to these points regarding air quality and dust (***Table 2.8 Human Health***), light pollution (***Table 2.10 Light Pollution***) and flooding (***Table 2.9 Flood Risk***) above. Responses to SASES' WRs on noise and traffic and transport will be provided at Deadline 4. The Applicants have submitted an updated ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) at Deadline 3 which reflects the amendments agreed during the SoCG process with various stakeholders including the Councils (REP1-072), the EA (REP1-077), NE (REP1-057), East Suffolk Internal Drainage Board (REP1-078) and Sizewell C (REP1-061).

ID	Written Representation	Applicants' Comments
04	4. The working hours proposed are unacceptable due to the proximity to local people and the community of Friston, as well as four rural villages along the cable corridor. The working hours proposed should not allow any weekend working. The working day should not be longer than the standard working day based on best practice in the construction industry i.e. 8am-4pm and no noisy work before 10am or after 3pm.	The Applicants note that the proposed working hours set out under Requirements 23 and 24 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) have been reduced on Saturdays from those originally proposed following feedback received from Section 42 consultation. Working hours are not proposed for Sundays or Bank Holidays unless for the stated exceptions described in ***section 6.9***. The Applicants must maintain flexibility within the stated working hours to ensure completion of construction within the indicative timeframes (30 months for the onshore substations and 48 months for the National Grid substation).
05	5. The construction related noise levels need to be validated. Additional receptor sites should be established as set out in the noise section below and monitoring needs to be for 12 months and times to be agreed and established when readings will be taken. This should all be reflected in the OCoCP.	The Applicants refer to their response to SASES WR on noise which will be submitted at Deadline 4. An updated ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) has been submitted to the Examinations at Deadline 3 and includes a commitment to ensure the final CoCP identifies areas of increased sensitivity to construction noise within the onshore development area for where the proposed mitigation measures could apply.
06	6. The proposals to construct the onshore works consecutively rather than concurrently with an extended construction period is unjustifiable given the serious impact of the construction works.	The Applicants acknowledge that whilst they cannot yet commit to concurrent construction of the onshore substations, as per the ***Project Update Note*** (REP2-007) submitted to the Examinations at Deadline 2, the Applicants have committed to installing the onshore cable ducts for the second project in parallel with the installation of the onshore cables for the first project. When the second project then moves into the construction phase, temporary infrastructure such as haul roads would be installed (where required) to access the works; duct integrity testing and repair would be undertaken (where required); new joint bays will be constructed along the cable route; surface water management arrangements would be

ID	Written Representation	Applicants' Comments
		established; and the pulling of electrical cables through the pre-installed cable ducts would be undertaken. Jointing of the onshore cables, backfilling of jointing bays and reinstatement would then follow. By making this commitment, there will no longer be a scenario whereby both Projects are constructed completely independent of each other along the onshore cable route.
07	7. The possibility of extended construction works is exacerbated even further by the fact that additional National Grid related construction works will be required to connect the six other offshore energy projects which either will or probably will connect to the National Grid at Friston. The Applicant has made no attempt to assess the cumulative impact of these works – see Written Representation – Cumulative Impact.	The Applicants refer to their response provided in rows 01-04 of ***Table 2.2*** of this document.
08	8. Noise and lack of mitigation, movement of vehicles, safety on local roads is of serious concern. The OCOCP needs to be amended to take into account the rural setting, impact on local people over so many years – please also refer to Written Representation – Noise impact and the detailed summary contained in this Written Representation in relation to noise. Please also refer to ExQs1 1.0.8 Response v1 which explains some of the omissions that need to be addressed in the OCoCP. Consequently, is it necessary that matters which are essential for inclusion in the final CoCP should be foreseen in the OCoCP.	The Applicants are preparing a response to SASES' WR on noise and will respond at Deadline 4. The Applicants also refer their comments provided regarding SASES' response to ExA Q1.08 in ***Applicants' Comments on Responses to Examining Authority's Written Questions WQ1s*** (REP2-014).
09	9. Air quality, emissions and dust particulates is of serious concern. Monitoring levels of N02 need to be considered in more detail in the OCoCP as it is believed that due to the cumulative impact of other projects the air quality could be compromised could potentially exceed the legal maximum allowable levels.	The Applicants recognise that monitoring is an important element in the management and verification of the actual impacts based on the final detailed design. Where monitoring is proposed for air quality, this is described in the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1). This has been updated and re-submitted at Deadline 3.

ID	Written Representation	Applicants' Comments
		Requirement 22 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1) requires the production of an Air Quality Management Plan as part of the final CoCP to be submitted to and approved by the relevant planning authority prior to the commencement of any stage of the onshore works. The Air Quality Management Plan will be prepared post-consent and set out the final requirements for managing and monitoring air quality impacts (with consideration to Nitrogen Oxide emissions) during construction of the Projects.

2.13 Construction – Onshore Cable Route

ID	Written Representation	Applicants' Comments
Summary		
01	1. Separate cable corridors for both EA1N and EA2 alongside each other, each up to 32m wide would form a 64m wide scar across AONB, agricultural land and some woodland.	The primary reason for the onshore cable route width of 32m per project, unless otherwise stated within the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1), is to provide sufficient space to ensure safe passage and working room for construction personnel and machinery alongside cable trenches. Cable installation activities would be temporary (up to 24 months) and the land will be fully reinstated post construction as appropriate. As per the ***Project Update Note*** (REP2-007) submitted to the Examinations at Deadline 2, the Applicants have committed to installing the onshore cable ducts for the second project in parallel with the installation of the onshore cables for the first project. When the second project then moves into the construction phase, temporary infrastructure such as haul roads would be installed (where required) to access the works; duct integrity testing and repair would be undertaken (where required); new joint bays will be constructed along the cable route; surface water management arrangements would be established; and the pulling of electrical cables through the pre-installed cable ducts would be undertaken. Jointing of the onshore cables, backfilling of jointing bays and reinstatement would then follow. By making this commitment, there will no longer be a scenario whereby both Projects are constructed completely independent of each other along the onshore cable route.
02	2. A requirement to propose separate and independent applications for two wind farms has led to duplication in the outline design of the cable route.	
03	3. A consequence of that decision would be massive impact on the local onshore environment, an example being the building of separate haul roads for each project.	

ID	Written Representation	Applicants' Comments
04	4. Proposed 7 years time limit to commence work has not been justified and is excessive.	The Applicants consider that a seven year period to commence construction of the Projects reflects the scale and complexity of the authorised development.
05	5. Working hours – must also be applicable to construction vehicle movements.	The Applicants refer to the information provided in ***section 2.2*** of the ***Outline Construction Traffic Management Plan*** (an updated version has been submitted at Deadline 3, document reference 8.1) regarding control of HGV numbers, HGV timings and control of HGV routes.
06	6. There was 'Survey Bias' in Stage 2 Community Consultation re Substation Site Selection process. This contributed to a decision to connect to the National Grid at a site west of B1122 in Aldringham.	The Applicants query this comment and would request additional information and evidence from SASES.
07	7. The absence of a 'Site Selection Report' on the reasoning for selecting the location at Access Ids 5 and 6 between Aldringham Court and Fitches Lane through the centre of Aldringham village for the cable corridors route and accompanying haul roads across B1122. No alternative routes seem to have been considered or evaluated.	The Applicants refer to ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) in the ES which was submitted with the Applications.
08	8. The absence of a report assessing the impact during construction on residential titles close to the Aldeburgh Road, Aldringham 'pinch point' crossing and other sensitive residential locations between Thorpeness and Sizewell.	The impact on residential titles close to Aldeburgh Road has been captured in the Applicants' assessment of construction related noise impacts of the onshore cable corridor (Chapter 25 Noise and Vibration (APP-073)). The Applicants note that the Councils have not raised this matter within their Relevant Representation or Local Impact Report, or through the SoCG process.
09	9. Insufficient detail provided on cable corridor positioning and orientation within the Order Limits.	Further detail on the exact positioning and orientation will be determined at detailed design.

ID	Written Representation	Applicants' Comments
10	10. The decision to divert cable route from a straight line between cable route north of Thorpe Road (B1123) and Aldeburgh Road (B1122) Access Id 5 has not been justified.	In ***Table 4.11*** of ***Chapter 4 Site Selection and Assessment of Alternatives*** (APP-052) the Applicants consider the alternatives between the following: • Onshore cable route takes shortest direct route through Sandlings SPA (shorter onshore cable route but through longer section of SPA); or • Onshore cable route crosses at narrowest section of Sandlings SPA (longer onshore cable route but through shorter section of SPA). The Applicants note that the environmental benefit of crossing the Sandlings SPA at its narrowest section reduces the potential impacts to habitats within, and disturbance to, SPA species. The Applicants have opted for a longer cable route in order to minimise potential ecological impacts upon the SPA and consider this is sufficient justification for diverting the cable route from a straight line between landfall and the Aldeburgh Road (B1122) crossing location.
11	11. We oppose the removal of a large number of trees near and to the north of Fitches Lane, Aldringham, leaving only a 5 metres wide line of existing trees as a barrier between residents in Fitches Lane and the Cable Corridor.	. Regarding the loss of trees in this location, the ecological mitigation area at Work No. 24 is provided within the Applications to accommodate a replacement woodland block. The proposed woodland replanting at Work No. 24 will be at least equivalent in size and similar in its ecological features and function to the area of woodland lost. Mitigation measures outlined in the ***Outline CoCP*** (an updated version has been submitted at Deadline 3, document reference 8.1) such as screening and fencing (***section 3.3***) and noise and vibration management (***section 9***) will ensure that visual and noise disturbance is reduced and minimised as far as possible.

ID	Written Representation	Applicants' Comments
12	12. The Applicant's submission of separate DCOs for EA1N and EA2 has caused great confusion.	For clarity, the East Anglia TWO project and East Anglia ONE North project are two separate projects which are the subjects of two separate applications. The two projects share the same landfall location, onshore cable route, National Grid infrastructure; and their onshore substations will be co-located.
13	13. An absence of easily accessible 'In Combination' information on the impact of both projects on business, school and residences along the cable corridors. This omission has led to a lack of appreciation by local communities and others that cable corridors combined width would be 64 metres (2 x 32 metres).	Cumulative impacts of the Projects on local businesses and tourism have been assessed in ***section 30.7*** of ***Chapter 30 Tourism, Recreation and Socio-Economics*** (APP-078). Schools and residences are classified as receptors and assessed in the cumulative impact section of various onshore topics including ***Chapter 19 Air Quality*** (APP-067) and ***Chapter 20 Water Resources and Flood Risk*** (APP-068), ***Chapter 25 Noise and Vibration*** (APP-073), ***Chapter 26 Traffic and Transport*** (APP-074) and ***Chapter 29 LVIA*** (APP-077). Regarding communication of the combined width of the cable corridors, the Applicants engaged in Phase 2 formal consultation (March / April 2018) with statutory consultees and the public in order to provide further information on the indicative onshore development area and substation zones for the intended onshore electrical infrastructure. This was followed by Phases 3, 3.5 and the PEIR at Phase 4. For further information please refer to the Applicants' ***Consultation Report*** (APP-029).
14	14. Given an application for a 7 years time limit on each project start, it is not acceptable that construction could continue for up to ten years, if the two projects are not implemented concurrently.	At this stage it is not known whether both Projects would be constructed simultaneously or with a construction gap. Therefore, the Applicants need to retain flexibility.

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15	15. The cumulative impacts on Cable Route with respect to NGV Nautilus, EuroLink and other energy projects assigned a Grid connection in the "Leiston" area (Friston) have not been assessed.	The Applicants refer to their response provided in rows 07-22 of ***Table 2.2*** of this document.
16	16. The presently attractively wooded landscape in Aldringham on both sides of Aldeburgh Road between Aldringham Court and Fitches Lane would be lost for ever.	The Applicants have committed to offset the loss of woodland through planting woodland of an equivalent area to that lost at Aldeburgh Road within the ecological mitigation area comprising Work No. 24 to the west of the existing woodland. Further details have been provided within ***Appendix 4*** to the ***Applicants' Reponses to Examining Authority's Written Questions*** (REP1-088). On completion of construction in this area, trenches will be backfilled and landscape planting as described within the final LMP (which will be prepared post-consent in accordance with the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7) to satisfy Requirement 14 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1)) will be implemented. The constraints and opportunities associated with planting over buried onshore cables are set out within paragraph 102 of the ***OLEMS***. However, the planting to be implemented will be detailed within the final LMP which must be submitted to and approved by the relevant planning authority prior to commencement of any stage of the onshore works.
17	17. The visual aspect and tranquillity of landscape across the flood plain meadows on the former River Hundred Special Landscape Area east of the Aldeburgh Road, Aldringham would also be lost, until long after construction is complete and meadowland restored.	Visual impacts at the crossing of the Hundred River Valley during construction of the onshore cable route, while significant (***Table 29.8*** of ***Chapter 29 Landscape and Visual Impact Assessment*** (APP-077)), will be short term and temporary. Construction is expected to last up to 24 months (***section 6.9*** of ***Chapter 6 Project Description*** (APP-054)). The final durations will be determined by the design and construction strategy post-consent. Please see ***section 1.1*** of the ***Project Update***

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		Note (REP2-007) submitted at Deadline 2 for further information on construction sequencing for the Projects. The section of onshore cable route, north of Fitches Lane, will be reinstated through the establishment of heathland over the onshore cables and further woodland planting along the outer edges of the onshore cable route, outside a minimum offset distance from the onshore cables. The landscape and ecological mitigation proposals for this area are presented within the ***OLEMS*** (APP-584) which has been updated and re-submitted at Deadline 3.
18	18. There are serious deficiencies in the Outline Code of Construction Practice (CoCP) with respect to noise from both construction and operation. We refer to SASES ExQs1 1.0.8 Response v1.	The Applicants note SASES' response. Please refer to the ***Noise and Vibration Clarification Note*** (REP2-011) submitted at Deadline 2. This note provides further information and clarification on the baseline noise survey, the construction phase assessment and the operation phase assessment. The Applicants note SASES' written submission and report prepared by Rupert Taylor and will respond at Deadline 4.
19	19. The Applicant's documentation implies that the impact of construction works and vehicles (noise, dust, vibration, light pollution) on those living, working or studying close to the substation sites, cable corridor route and CCSs would be acceptable in every respect. No credible analysis of the impact of construction works and vehicles has been provided.	The Applicants query this statement (row 19) and would request SASES to provide evidence of this in the supporting documentation. Please see the ***Noise and Vibration Clarification Note*** (REP2-011) submitted at Deadline 2 for further information regarding the construction phase assessment and the modelling methodology.
20	20. Calculations and assumptions underlying the Applicant's interpretation of BS5228 and A, B, C analysis of noise impact at domestic receptors along the cable corridor have not been made available. There is insufficient information in the report to allow us to determine if the stated noise levels have been modelled correctly. This may have resulted in an underestimation of impact and therefore also in the requirement for mitigation.	

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21	21. The descriptions of impact of noise on wildlife [APP-070] ES Vol 1 Ecology Chapter 22 Ecology seem to address only a limited number of protected species at Designated Sites and are not quantified.	***Section 22.6.1.1*** of ***Chapter 22 Onshore Ecology*** (APP-070) assesses the impact on the protected bird species associated with Minsmere to Walberswick Ramsar and SPA and Alde-Ore Estuary Ramsar and SPA. Specific construction disturbance distances are used (1.98km for both sites respectively) in the assessment of impacts. This section of the ES goes on to state that there are a number of other designated sites within 2km (refer to ***Table 22.12***). However, these are all designated for habitats alone and there is no mechanism for indirect disturbance impacts associated with the installation of the onshore cables. The other onshore ecology receptors considered within the EcIA are not as sensitive to noise disturbance as the onshore ornithological receptors considered here. The onshore ornithological receptors associated with these SPAs are considered to be more sensitive due to their association with these designations in the EcIA.
22	22. A daytime construction noise threshold of 65 dBA (55 dBA at the weekend) is vastly excessive in a quiet rural area where the prevalent background noise is approximately 35 - 38 dBA. This would be equivalent for any property in relative close proximity to the site, some of which are Grade II listed properties, to having a 5 tonne 30kW diesel engined excavator running all day in the garden. It is unacceptable and the effect over the period of up to 7 years (both projects) would damage health and well-being of resident.	The specified construction noise thresholds are based on BS5228. The Applicants maintain that the BS5228-1:2009+A1:2014 ABC Method is the appropriate guidance to use for the assessment of significance of construction phase noise impacts. BS5228-1:2009+A1:2014 is the nationally adopted methodology for construction noise assessments and does not recommend that alternative methods are used to define impacts when construction works are undertaken in otherwise quiet areas. Furthermore, the Overarching NPS for Energy (EN-1) recommends the use of BS5228 for 'the prediction, assessment and management of construction noise' (Department of Energy and Climate Change, 2011a). Please refer to the ***Noise and Vibration Clarification Note*** (REP2-011) submitted at Deadline 2 for further information.

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23	23. Security light pollution especially at the several Construction Consolidation Sites (CCS) would be a blight upon the presently rural dark night-time skies.	Please see the Applicants' response provided to item 01 of ***Table 2.10 Light Pollution***.
24	24. The loss of up to 2 – 3 Ha of mature and veteran woodland on land allocated to Cable Route at Section 3b in Aldringham, between B1123 Thorpe Road and Fitches Wood (to east and west of B1122) including Group TPO SCDC/87/00030 would be a great loss to local habitats and natural environment.	No veteran trees have been identified as requiring removal to facilitate construction of the Projects. Some mature trees will require removal, however individual mature trees are not considered as an important receptor within the EcIA (see ***Table 22.8*** of ***Chapter 22 Onshore Ecology*** (APP-070). Trees subject to Tree Preservation Orders, including those north of Fitches Lane, are assigned 'medium' importance within the EcIA reported in ***Chapter 22 Onshore Ecology***. Mitigation for these trees has been presented in ***section 22.6.1.4.2*** of ***Chapter 22 Onshore Ecology*** and detailed in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). The Applicants have committed to ensuring that at least an equivalent area of lost woodland is replanted following completion of the works (trees cannot be replanted directly above the buried cables). The Applicants note the feedback received from East Suffolk Council at Issue Specific Hearing 2 regarding the successes of micro siting to retain hedgerows and trees where possible for East Anglia ONE. The Applicants will continue to engage with the Councils regarding micrositing requirements for the Projects.
25	25. The great majority of the thirty-three diverted PROW sections due to be diverted are situated within Aldringham-cum-Thorpe Parish. In Aldringham village, the "temporary" closure of three PROWs would badly affect footpath connections between the southern half of the village and its population centre and with Knodishall.	The Applicants would request further information on which three PRoWs SASES is referring to. Precise details for the management of each PRoW, including the specification of any PRoW temporary diversions required during construction works, will be agreed with the highway authority through approval of the final PRoW Strategy prior to commencement of any stage of the authorised development that would

ID	Written Representation	Applicants' Comments
		affect a PRoW specified in Schedule 3 or 4 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). Please also see the Applicants' responses to SASES' WRs on footpaths in ***Table 2.7*** of this document.
26	26. Two important hedgerows in Aldringham would also be lost.	Additional habitat is being created as part of the OLMP presented in the ***OLEMS*** (an updated version has been submitted at Deadline 3, document reference 8.7). This includes the replanting of hedgerows along the cable route using species of local origin, improving the quality of species-poor hedgerows, plus the creation of new areas of native woodland, species-rich hedgerow and species-rich and wet grassland at the substation site (OLMP General Arrangement Figure 3 of the ***OLEMS***). The working width of the onshore cable route must not exceed 32m, save in respect of where cables cross an important hedgerow specified in Part 2 of Schedule 11 of the ***draft DCO*** (an updated version has been submitted at Deadline 3, document reference 3.1). In this case the working width of the onshore cable route must not exceed 16.1m. This commitment is secured under Requirement 12(14)(d) of the ***draft DCO***.
27	27. The local road network between the A12 and the coast is inappropriate for use by construction traffic engaged in such a major project. The Applicant would seem to recognise this, as evidenced by proposals to send many trucks and other vehicles along haul roads instead of narrow and bending B-class rural roads. However, all that has achieved is to transfer a severe environmental blight to homes adjacent or close to the proposed haul roads. We ask ExA to recognise that the local area cannot	The impact of residential receptors experiencing noise from Heavy Good Vehicles (HGVs) and construction traffic movements from the proposed haul roads has been assessed in ***section 25.6.1.1*** of ***Chapter 25 Noise and Vibration*** (APP-073) and is of negligible significance in EIA terms. The Applicants will re-route HGV traffic away from the most sensitive communities and the use of haul roads are therefore required to fulfil that commitment.

ID	Written Representation	Applicants' Comments
	sustain such a burden and over so many months and years and that the use of haul roads for such volumes instead is not acceptable.	
28	28. There are many inconsistencies in the Applicant's documentation on Construction Traffic routing. A particular concern is ambiguity with regard of the use of particular sections of the haul roads by HGVs, for split loads and confusion regarding the route to section 3b.	The Applicants would require further information on this specific comment to respond further. The Applicants will respond to SASES' WRs on traffic and transport in detail at Deadline 4.
29	29. LGV and worker commuting vehicles should be required in the Outline Construction Traffic Plan, Outline Travel Plan and Outline CoCP to use existing public roads, where practicable, not haul roads that pass close to residential properties.	As clarified in item 27 above, use of the haul roads by Large Goods Vehicles and worker commuting vehicles is required in order to avoid noise impacts on the most sensitive communities.
30	30. The cumulative impact during construction over an 'in combination period' of up to 10 years of noise, traffic, air pollution and dust, footpath closures and diversions and loss of natural habitat on lives and mental health is likely to be intolerable, particularly at homes within say 100 metres of the cable corridors.	It is noted by the Applicants that if communities anticipate changes in their local area that this could have a detrimental impact on mental health. It is recognised that individuals will vary in their response and that the assessment of this link to mental health is complex. The Applicants have therefore sought to mitigate this as far as possible through comprehensive public engagement and consultation as described in row 03 of ***Table 2.8 Human Health***.