East Anglia ONE North and East Anglia TWO Offshore Windfarms

Applicants' Comments SASES Deadline 5 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

Revision Summary				
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Description of Revisions			
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Glossary of Acronyms

AONB	Area of Outstanding Natural Beauty
APP	Application Document
AS	Additional Submission
CoCP	Code of Construction Practice
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EMP	Ecological Management Plan
ES	Environmental Statement
ESC	East Suffolk Council
NGET	National Grid Electricity Transmission
NPS	National Policy Statement
NSIP	National Significant Infrastructure Project
OLEMS	Outline Landscape and Ecological Management Strategy
PD	Procedural Decision
PRoW	Public Right of Way
RSPB	Royal Society for the Protection of Birds
SASES	Substation Action Save East Suffolk
SCC	Suffolk County Council
SPA	Special Protected Area
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Drainage System

Glossary of Terminology

Applicant	East Anglia TWO Limited / East Anglia ONE North Limited
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 ONE North windfarm site	The offshore area within which wind turbines and offshore platforms will be located.
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.
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.
Offshore export cables	The cables which would bring electricity from the offshore electrical platforms to the landfall. These cables will include fibre optic cables.
Offshore platform	A collective term for the construction, operation and maintenance platform and the offshore electrical platforms.
Platform link cable	Electrical cable which links one or more offshore platforms. These cables will include fibre optic cables.

1 Introduction

1. This document presents the Applicants' comments on Substation Action Save East Suffolk's (SASES') Deadline 5 submissions as follows.

    - Deadline 5 – Post Hearing Submissions (ISH5) (REP5-101)
    - Deadline 5 - Accompanied Site Inspections (ASI1 & ASI2) Submissions (REP5-103)
    - Guidance Notes For Site Inspection 1, Item 10 (REP5-105)
    - Deadline 5 – Post Hearing Submission (ISH4) (REP5-100)

2. This document is applicable to both the East Anglia TWO and East Anglia ONE North Development Consent Order (DCO) applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's procedural decisions (PD) on document management of 23rd December 2019 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.

2 Comments on SASES Submissions at Deadline 5

2.1 Deadline 5 – Post Hearing Submission (ISH5)

ID	SASES Comment	Applicants' Comments
1	a. there are clear differences between the Bramford substations site used for EA1 and the proposed Friston site. It is the failure to understand these fundamental differences which has led to these applications being so flawed. b. the impression that EA1 development was a success is not the case given what happened with the cable route and downsizing of generation capacity c. the EA1 DCO (and the change process) was ineffective as it did not prevent the downsizing in generation capacity or the reduction in capacity of the cable route.	The East Anglia ONE Offshore Windfarm, with a capacity of up to 1200MW, was awarded a contract under the first allocation round of the Contract for Difference (CfD) for 714MW capacity, based on a Grid Connection capacity of 680MW. Subsequently, in 2016, a connection agreement became effective, splitting the previous East Anglia ONE project into two separate projects by reducing its capacity to reflect the CfD awarded in 2015; and forming the East Anglia ONE North project with the balance of the contracted capacity for the original East Anglia ONE project. Taking forward the 714 MW development at this stage was critical in securing a Contract for Difference (CfD) in the completive competitive auction process run by the UK Government and delivering 714MW of clean energy.
2	a. Bramford was an existing substation site so EA1 was a brownfield development with an existing National Grid connection hub not a greenfield development in a rural area which requires a new National Grid connection hub b. the nearest residential receptors at Bramford are 600m away (Friston 250m) and the Bramford site is not adjacent to a rural village c. Bramford does not have a flood risk d. Bramford is not closely ringed by listed buildings	a) The SPR substations at Bramford are not on brownfield land. They are on former farmland next to the National Grid Electricity Transmission (NGET) substation. Chapter 22 Land Use of the East Anglia THREE ES states (paragraph 157) *The total land take at the substation(s) would be 3.04ha (Table 22.2). This land is ALC grade 2 and is considered to be of high sensitivity.* b) This is correct c) The Bramford substation site is outside of Flood Zones 2 or 3. The Projects' substation location is also outside of Flood Zones 2 or 3

ID	SASES Comment	Applicants' Comments
	e. Relative to Friston, Bramford is easily accessible by road f. Bramford is not in an area where tourism is a key part of the local economy	d) Several Grade II listed buildings are located within 500m of the order limits of both East Anglia ONE and East Anglia THREE. Only one is affected (by both projects. Chapter 25 Onshore Archaeology and Cultural Heritage of the East Anglia THREE ES states (paragraph 130): *Some indirect impacts on the setting of the Grade II Listed Fidgeon's Farmhouse are anticipated at the proposed substation(s) location which is incorporated in its westerly views. This impact will occur throughout the operational life of East Anglia THREE, which its anticipated to be 25 years.* e) It is unclear exactly what is meant by this. However, the Applicants note that the Chapter 27 Traffic and Transport of the East Anglia THREE ES identified potential significant impacts (for Pedestrian Amenity, Road Safety, Driver Delay and Impacts upon Local Routes) all of which were reduced with appropriate mitigation to minor adverse impacts (see Table 27.23). Given the road network in Suffolk the issues at Bramford were similar to those for the Projects, accepting that each project has unique issues. f) Bramford is not a tourist destination, however the Applicants contest the Friston is a tourist destination either. A review of the Expedia pages for both locations (a natural potential starting point for visitors) show similar places to visit including Snape Maltings, Sutton Hoo and Framlingham Castle, none of which are located close to either village.
3	a. the cable route can only carry 2.1GW of power whereas Is was originally planned to carry 3.6MW and with the approach taken with EA3 (a 1.4GW project) it could have carried at least 7.2GW; b. instead of being a 1.2GW project, EA1 turned out to be a 714 MW project with no material reduction in environmental impacts	a) In terms of alternative cable routes, although the DCO for EA ONE project consented a cable corridor width to allow the laying down of cables for EA3 and a future project, the non-material change to connect to the National Grid transmission system through High Voltage Alternating Current (HVAC) technology, increased the number of cables being installed and therefore limited the available space in the cable corridor to lay down another set of cables to connect the a future project.

ID	SASES Comment	Applicants' Comments
	c. the excess amounts of land which were acquired by both National Grid and Scottish Power at the Bramford substations site which is not being productively used.	b) The reduction in capacity was approved by the Secretary of State. c) The area of land owned by SPR, which was initially expected to accommodate three substations, however, due to the relocation in capacity between East Anglia ONE, EA2 and EA1N and the consequent need to develop a fourth substation, there is not sufficient land for the siting of the fourth substation infrastructure in line with technical and regulatory requirements. There are a number of constraints that the land owned by SPR is subject to, including OHLs, other undertakers' apparatus and areas required for planting for EA1 and EA3.A further the key constraint identified was cumulative noise. This constraint in isolation meant that the land area owned by SPR could not accommodate the EA2 and EA1N substations.
4	The EA1 DCO and the associated change process was ineffective in preventing the serious consequences set out above. Had it been effective the proposal for Friston as a site for the EA1N and EA2 substations and a new National Grid connection hub would not have been brought forward with all the delay and cost that has involved to date and the unnecessary onshore environmental damage that will be caused from landfall on a fragile coastline, from a cable route through an AONB and from substation development at Friston, if these projects are consented.	As mentioned above, the non-material change to High Voltage Alternating Current (HVAC) technology, increased the number of cables being installed and therefore limited the available space in the cable corridor to lay down another set of cables to connect the future projects. For EA2 and EA1N to connect in at Bramford, a new 37km cable route out with the order limits or easement corridor of EA1/3 was investigated. The cable route was to run primarily in parallel to EA1/3 although several pinch points had been identified, making necessary long deviations for the EA1/3 route necessary. This 37km cable route passes through three statutory designated sites, the Bawdsey Cliff SSSI (which is a geological SSSI), the Deben Estuary Special Protection Area (SPA) / RAMSAR / Site of Special Scientific Interest (SSSI) (required to crossed at two points) and approximately 6km through the Suffolk Coast and Heaths Area of Outstanding Beauty (AONB). In contrast to the Bramford Connection, the Leiston Connection Leiston is the most economic and efficient connection option.`

2.2 Deadline 5 - Accompanied Site Inspections (ASI1 & ASI2) Submissions

ID	SASES Comment	Applicants' Comments
INTRODUCTION		
1	Reference is made to the Access Required Site Inspections and Unaccompanied Site Inspections notification document published on 19th January 2021. On the first page of this document at paragraph 4, the ExA declared its intention to publish a written inspection note shortly after the inspections were concluded and invited submissions of observations in writing on the specific features of the inspected sites supported by maps, plans, photographs and videos. These are SASES' submissions on Items of concern on the published Itinerary.	Noted.
Day 1 Itinerary – 26 January 2021 **Item 3 – Grove Road, Friston (proposed haul road/cable route crossing the public highway (Work No 26).**		
2	Notes: • Bridleway FP6 is proposed to be used as Pre-construction Access – this raises safety issues to walkers, cyclists and horses. • There is run-off from the east on to Grove Road. There are no ditches on either side of the road. • Grove Road is narrow (single track) and winding with no footpaths. • Grove Road is heavily used by large agricultural vehicles and cyclists. • The field where the haul road crosses floods onto Grove Road due to the slope of the land. • Width of haul road crossing = 87.86M, plus a large marshalling area for HGVs – this is the area where the	The Applicants are aware of the matters raised by SASES and note the existing use of Grove Road by large agricultural vehicles and cyclists. The Applicants interaction at Grove Road will be safely managed under the final Public Rights of Way Strategy and final Access Management Plan secured under the ***dDCO*** (document updated at Deadline 7, document reference 3.1).

ID	SASES Comment	Applicants' Comments
	alternative PRoW is planned, as well as Construction Consolidation Sites. • Grove Wood and Laurel Covert are slightly to the north – there is an area where the felling of trees under Forestry Commission licences has taken place and will continue as a rolling programme.	
Item 4 – Wooded pit on Substation Site		
3	Notes: • The pit is of a considerable size. • Two land drains discharge into this pit, which floods following heavy rain. • [TEXT REDACTED] • It is a haven for other wildlife – deer, bats, birds etc who are completely undisturbed. • The westernmost substation will be in close proximity to the pit. • How is the stability of the pit to be maintained? • What are the effects of noise and light on the wildlife here? • There is a further pit on the north-western side of the site near the pylons/FP17 (Pit 2) • There is a drainage ditch flowing east to west across the site • Land drains are marked by a white post and discharge into the above ditch, which in turn feeds the Pit 2.	The Applicants note that the revisions to the footprint of the onshore substations allows for the retention of this pit to the west of the onshore substation location (see ***Deadline 4 Project Update Note*** (REP4-026)).

ID	SASES Comment	Applicants' Comments
Item 6 – Watercourse from substation site and Main River from Church Road to A1094 crossing		
4	Notes: • The ditch adjacent to FP17 is not continuous. It ends north of Woodside Farm, adjacent to northern end of woodland belonging to Friston House • After rainfall this ditch overtops and flows down the track (FP17) past Woodside Farm and over a ford in Church Road to enter the 'Main River'. • Watercourse follows Church Path and enters culvert at junction with Grove Road. • At this junction any flood water from Grove Road, or from either direction along Aldeburgh Road, combines with floodwater from the substation area to be carried southwards. • There is a long culverted section from Grove Road to some distance down Low Road. Gulleys taking surface water from Low Road also enter the culvert. • Where the watercourse emerges from the culvert, note the height/width restriction and therefore volume of water which can be conveyed. • The watercourse continues adjacent to Footpath 26 through pig fields. • The watercourse has been diverted to the south-west and the ditch comes to an end in a flood storage area adjacent to the A1094. • There is a bund some 950mm high and then a weir, where any overtop is culverted under the A1094 southwards down	The Applicants note its commitment to not exceed the existing discharge rate into the Friston Watercourse, as stated in the ***Outline Operational Drainage Management Plan*** (REP6-017).

ID	SASES Comment	Applicants' Comments
	the access to Firs Farm. This is designed to prevent serious flooding downstream.	
Item 10 – Leiston Airfield, Harrow Lane, near Abbey Lane, Theberton **Background**		
5	The two adjacent sites to be visited are in Harrow Lane, (near Abbey Lane), Theberton. They are both considered viable, and potentially considerably preferable, alternative sites for the SPR substations well away from substantial communities. The sites are within 5km of the proposed new NGET substation at or near Grove Wood, which is understood to be an acceptable distance from a power engineering perspective. Both sites have previously been identified by National Grid Ventures (NGV) as possible site for HVDC converter stations in connection with their Nautilus and Eurolink Interconnector projects and are marked '7' and '8' on Figure 1 below. Site 8 is understood to have been suggested to NGV by a Local Authority. Given the area of both of these sites colocation of the proposed SPR HVAC substations and any NGV converter stations would seem viable. Figure 2 is a satellite image of the Harrow Lane area marked up to in red to identify the two sites.	For both of the suggested locations the Applicants highlight the process by which the onshore substations site selection study area was defined as set out in ***Chapter 4, Site Selection and Assessment of Alternatives*** (APP-052) (paragraphs 121 – 127) and as discussed at the site selection Expert Topic Group. Of particular relevance is the following text: *123….The onshore substation(s) site selection study area was not extended further west than the general area of the pylon north of Grove Wood due to the continuation of a similar dispersion of residential properties and similar land uses to the southwest along the overhead pylon line. In addition, further extension was deemed to be unnecessary given alternative sites within the extended onshore substation(s) site selection study area were identified as available.* *124 The onshore substation(s) site selection study area was expanded to a 1km buffer either side of the overhead line route into Sizewell. This was to ensure that any potential options, at a less economic and efficient distance from the overhead line, would still be captured and considered. Review of this initial onshore substation(s) site selection study area (including a 1km buffer of the overhead lines up to the tension pylon north of Grove Wood) considered land use, high-level environmental constraints (such as nature conservation designations, Historic Environment Records, Environment Agency Flood Zone 2 and 3, and Public Rights of Way (PRoW)) and existing residential areas. Land use throughout this area is broadly similar, with large scale arable fields separated by scattered properties and small settlements.*

ID	SASES Comment	Applicants' Comments
		The sites proposed are over 3km from the overhead line, therefore they were not considered within the onshore substations site selection study area presented to the LPAs. It is noted that the routeing of the cables to the overhead lines would represent a significant challenge. From the Theberton site, connection to the existing 400kV lines would require routeing of 400kV overhead lines or a significantly wider underground cable corridor than currently proposed (to accommodate the 400kV cabling) to the north through the EDF mitigation land at Broom Covert, Leiston Common, Sizewell Marshes SSSI and several woodlands (as there would be a need to avoid the wetland created as SZC mitigation at Aldhurst Farm), routeing to the north of Leiston Abbey to the site and then from the substation south to the overhead lines crossing multiple roads and the railway. Alternatively, using the Projects cable route and doubling back to the existing overhead lines to connect in (adding a likely further 4-5km of cable route, crossing multiple roads, the railway and needing to avoid multiple properties). In terms of the location itself, the key issues would seem to be proximity of residential properties and proximity of caravan park (both within 250m), proximity of Leiston Abbey (Grade I listed), and the openness of the landscape and views in/across it from surrounding country roads, general absence of existing and well established screening with just some smaller strips of shelterbelt on site. Theberton village is also within 1km to the north-east. The Applicants have undertaken a robust site selection process, as presented within ***Chapter 4*** of the ES, ***Site Selection and Assessment of Alternatives*** (APP-052), and stand by the decision to locate the onshore Substation and National Grid infrastructure at Grove Road, Friston, thereby benefiting from the existing screening afforded by Laurel Covert and Grove Wood and the proximity to the existing 400kV overhead lines.

ID	SASES Comment	Applicants' Comments
Item 10 – Leiston Airfield, Harrow Lane, near Abbey Lane, Theberton **Visiting Arrangements**		
6	It is suggested that those visiting have access to a suitable OS map, preferably 1:25,000, as the optimum viewing locations are defined below by OS Grid References, as well as marked on Figure 3 as locations 'A' and 'B'. If travelling by car use of satnav is recommended to reach destination postcode IP16 4TQ (marked on Figure 3). After a further 100m travel to the north east Harrow Lane will be found on the right at a crossroads. Then proceed as follows.	Please see ID6.
Item 10 – Leiston Airfield, Harrow Lane, near Abbey Lane, Theberton **Location A / Site 8 (Field off Harrow Lane)**		
7	Drive down Harrow Lane (direction south east) and Location A will be found on the left after about 375m. Parking on the verge is possible with care. The OS grid reference for Location A is TM 4192 6474. Site 8 in Figure 1 may now be viewed on the left through the field access and comprises approx. 30 acres of level, well drained, agricultural land, largely surrounded by mature trees and hedging. Photos 1 and 2 below illustrate the suggested parking spot and view available. No permission to walk onto the site has been obtained at this stage. A footpath further down Harrow Lane (see Figure 3) is available but was largely ploughed up when last inspected.	Please see ID6.

ID	SASES Comment	Applicants' Comments
Item 10 – Leiston Airfield, Harrow Lane, near Abbey Lane, Theberton **Location B / Site 7 (Old Leiston Airfield)**		
8	Drive further down Harrow Lane and Location B will be found on the left after a further 1.2km approx., opposite the remains of one of the old airfield runways, now used for farm stockpiles. The OS grid reference for Location B is TM 4282 6398. Site 7 in Figure 1 may now be viewed on the left across the open field boundary and is an extremely large open site comprising slightly sloping well drained agricultural land with some existing tree screening. Photos 3 and 4 below illustrate the suggested parking spot and north-east view across the old airfield. Photo 5 shows the view in the opposite direction (along the line of the remains of the old runway) and shows the 400kV overhead lines in the distance. No permission to walk onto the site has been obtained at this stage.	Please see ID6.
Day 2 Itinerary – 27 January 2021 **Item 4 - River Hundred River Valley**		
9	Two thousand years ago the Hundred River is thought to have carried barges at high tide up to a Roman town (Cogimagus) where Knodishall church now stands. Ships used to anchor in the Haven which is now a marsh and water meadow between Thorpeness and Aldeburgh. In Saxon times, this river was the northern boundary of Queen Aethelfleda's Benefice in the 7th century. It is thought that in 14th century there would also have been an anchorage somewhere between here and the Parrot Pub. Its western bank would have been on the west side of Gipsy Lane as it is today.	N/A.

ID	SASES Comment	Applicants' Comments
	The Valley was designated as a 'Special Landscape Area' until the adoption of a new East Suffolk District Plan in November 2020. The ExA observed the following features from Riverwood's rear garden near to the river's western banks:-	
10	**The River Hundred (A)** The river's level and rate of flow were low. However Environment Agency Flood Zone 3 extends 25% of the way up towards the tree line at the top of the meadow on the east bank. Following rainy weather the river overflowed its bank during week prior to visit and during several days after the visit. The river is a vital ecological link feeding North Warren RSPB, the Sandlings SPA and the Leiston-Aldeburgh Site of SSSI just a few hundred yards down stream.	As stated within the ***Outline Watercourse Crossing Method Statement*** (REP-6-041) The Hundred River is typical of lowland, low energy drainage systems that have been extensively modified historically and data presented on the Environment Agency's Catchment Data Explorer indicate that water quality in the Hundred River is relatively poor, with low concentrations of dissolved oxygen and elevated concentrations of phosphates. The Applicants mitigation measures outlined within the ***Outline Watercourse Crossing Method Statement*** (REP6-041) will be finalised on completion of the detailed design and will ensure protection of downstream ecological interests (it is noted that the SPA and SSSI is approximately 1.4km away as the river flows from the watercourse crossing).
11	**Meadow on east side of river sloping upwards from river** This is pasture (at present grazed by Red Poll Cattle) with an upwards gradient towards a prominent, curious and archeologically complex mound, described in SPR's Habitats Survey as a large vegetated mound (10mx20m), with optimal feeding, a basking habitat for reptiles. Cable Corridor Order Limits of Work No 19 have a width varying between 75 and 100 metres and occupying most of the meadow. Appendix 22.3 On the east side of the River Hundred between those Order Limits is a prominent and notable oak tree with a girth of 369cm, making it	Further details on acoustic screening of properties is provided in an updated ***Outline Code of Construction Practice,*** submitted at Deadline 7 (document reference 8.1).

ID	SASES Comment	Applicants' Comments
	around 200 years old. It is at the centre of the proposed haul roads / cabling routes and therefore at risk during construction of the two cable/ haul road corridors. It is surprising that the Applicants have omitted to record this tree in the Environmental Assessment Extended Phase 1 Habitat Survey APP-503 The western Order Limit line for Cable Corridor Construction is approximately 25 – 75 metres from Riverwood rear garden and only 87 metres from the house itself. It is of concern that at Deadline 3 East Suffolk Council in responding to the Applicants' 'Construction in Proximity to Properties' document (REP3-058) reported there was still no firm agreement to provide acoustic noise screening mitigation ExA made further observations at Hundred Cottage's rear garden near to the river's western banks of aspects of the river valley upwards to the proposed location of a Construction Consolidation Site (CCS) – Work No 18 near Thorpe Road / Church Lane.	
Item 5 - Aldeburgh Road at Fitches Lane and Gipsy Lane Crossing At the Aldeburgh Road B1122 crossing place		
12	The Applicant has not revealed approximately where (within the 93 metres available within the Order Limits) the 16.1 or 32.1 metres wide cable corridor(s) would cross the road. The Order Limit is only 7 metres from entrance to Gipsy Lane and Hazelwood Pines (G).	The Applicants have noted on various occasions that the detailed design and routing of the onshore cable route will take place post consent, as permitted by NPS EN-1. Safe access arrangements will be agreed with the relevant highway authority through the Access Management Plan secured under the ***draft DCO*** (document reference 3.1).
13	There is approx. 0.9 Ha of riparian woodland on north of side of Gipsy Lane (F). It is unmanaged and re-wilded nature, a habitat for	These features are identified and assessed within the Applicants ES, namely ***Chapter 22, Onshore Ecology*** (APP-070).

ID	SASES Comment	Applicants' Comments
	a variety of fauna and biota and also is a positive feature of the landscape. Much of this land lies within EA Flood Zone 3.	
14	There is an extensive area of woodland on the west side of Aldeburgh Road between Fitches Lane and Aldringham Court (N) protected until now under Tree Preservation Order SCDC/87/0030.	These features are identified and assessed within the Applicants ES, namely ***Chapter 22, Onshore Ecology*** (APP-070).
15	There is tarmac pavement on east side of Aldeburgh Road, providing a pedestrian link between Aldringham (west), Aldringham (north) and Leiston.	Noted.
16	**Along Fitches Lane from Aldeburgh Road to Suffolk Lodge** Fitches Lane is an unmade rural bridleway leading to six houses and provides footpath (PROW) links leading to the centre of Aldringham and to Knodishall. It is used by children attending Cold Fair Green Primary School. Fitches Lane itself lies within the Order Limits, being designated for use by non-HGV vehicles and plant. Houses (H,I,J,K,L) on south side of Fitches Lane are within 25 metres distance from Cable Corridor Works Order Limit. The Applicant has committed to retain only a narrow 5 metre wide strip of woodland between Fitches Lane and Cable Corridor works no 20 [Ref APP-052] 6.1.4 Environmental Statement 4.9.2.2 (171).	Fitches Lanes is used only for pre-construction access. Further details on acoustic screening of properties is provided in an updated ***Outline Code of Construction Practice***, submitted at Deadline 7 (document reference 8.1).

2.3 Guidance Notes For Site Inspection 1, Item 10

ID	SASES Comment	Applicants' Comments
BACKGROUND		
1	The two adjacent sites to be visited are in Harrow Lane, (near Abbey Lane), Theberton. They are both considered viable, and potentially considerably preferable, alternative sites for the SPR substations well away from substantial communities. The sites are within 5km of the proposed new NGET substation at or near Grove Wood, which is understood to be an acceptable distance from a power engineering perspective.	Please see ID5 of Section 2.2 of this document. The Applicants have undertaken a robust site selection process presented within ***Chapter 4*** of the ES, ***Site Selection and Assessment of Alternatives*** (APP-052), and stands by its decision to locate the onshore Substation and National Grid infrastructure at Grove Road, Friston, as detailed in Chapter 4 of the ES ***Site Selection and Assessment of Alternatives*** (APP-052), thereby benefiting from the existing screening afforded by Laurel Covert and Grove Wood and the proximity to the existing 400kV overhead lines.
2	Both sites have previously been identified by National Grid Ventures (NGV) as possible sites for HVDC converter stations in connection with their Nautilus and Eurolink Interconnector projects and are marked '7' and '8' on Figure 1 below. Site 8 is understood to have been suggested to NGV by a Local Authority. Given the area of both of these sites colocation of the proposed SPR HVAC substations and any NGV converter stations would seem viable.	Please see ID5 of Section 2.2 of this document.
3	Figure 2 is a satellite image of the Harrow Lane area marked up to in red to identify the two sites.	N/A
VISITING ARRANGEMENTS		
4	It is suggested that those visiting have access to a suitable OS map, preferably 1:25,000, as the optimum viewing locations are defined below by OS Grid References, as well as marked on Figure 3 as locations 'A' and 'B'.	N/A

ID	SASES Comment	Applicants' Comments
5	If travelling by car use of satnav is recommended to reach destination postcode IP16 4TQ (marked on Figure 3). After a further 100m travel to the north east Harrow Lane will be found on the right at a crossroads. Then proceed as follows.	N/A
Location A / Site 8 (Field off Harrow Lane)		
6	Drive down Harrow Lane (direction south east) and Location A will be found on the left after about 375m. Parking on the verge is possible with care. The OS grid reference for Location A is TM 4192 6474.	N/A
7	Site 8 in Figure 1 may now be viewed on the left through the field access and comprises approx. 30 acres of level, well drained, agricultural land, largely surrounded by mature trees and hedging. Photos 1 and 2 below illustrate the suggested parking spot and view available.	N/A
8	No permission to walk onto the site has been obtained at this stage. A footpath further down Harrow Lane (see Figure 3) is available but was largely ploughed up when last inspected.	N/A
Location B / Site 7 (Old Leiston Airfield)		
9	Drive further down Harrow Lane and Location B will be found on the left after a further 1.2km approx., opposite the remains of one of the old airfield runways, now used for farm stockpiles. The OS grid reference for Location B is TM 4282 6398.	N/A
10	Site 7 in Figure 1 may now be viewed on the left across the open field boundary and is an extremely large open site comprising slightly sloping well drained agricultural land with some existing tree	N/A

ID	SASES Comment	Applicants' Comments
	screening. Photos 3 and 4 below illustrate the suggested parking spot and north-east view across the old airfield. Photo 5 shows the view in the opposite direction (along the line of the remains of the old runway) and shows the 400kV overhead lines in the distance.	
11	No permission to walk onto the site has been obtained at this stage	N/A

2.4 Deadline 5 – Post Hearing Submission (ISH4)

ID	SASES Comment	Applicants' Comments
4(b) - NOISE		
1	1. SASES called Rupert Thornely-Taylor to give evidence on noise matters. Mr Thornely-Taylor is an acoustician and expert witness with 52 years experience in the field. He has given evidence at the examinations into the Tilbury 2, Thames Tideway Tunnel and Silvertown Tunnel DCOs, and on behalf of the Secretary of State in the HS2 Bill Select Committees. He acted as expert witness in the inquiry into the North-South Interconnector in Northern Ireland.	No further comment.
2	2. Mr Thornely-Taylor explained that Friston is a very quiet area indeed, and there is only one area in England where he has measured lower noise levels. The quiet noise environment is itself an important environmental resource.	The Friston area is not designated for 'tranquillity' (such as is the case for parts of areas like North York Moors National Park) and no evidence is given by SASES to support their assertion of the character of Friston's noise environment. Friston can be considered a relatively quiet rural area, but there is no indication that it is different to any other rural area in the UK.
3	3. Policy (EN-1, 5.11.9) requires that development consent is not given unless proposals avoid significant adverse effects on health and quality of life. It is necessary to mitigate and minimise other adverse effects on health and quality of life. "Avoid" means "do not let happen".	BS4142 accords with National Policy Statement EN-1 in its advice that, when rating levels exceed background by +5dB or more then adverse effects may occur, depending on the context (see response at ID5 for further details on context). The assessment has been undertaken in accordance with BS4142 and, in complying with the Requirement 26 and 27 within the ***draft DCO*** (updated at Deadline 7, document reference 3.1), no adverse effects will be caused.
4	4. With regards to the requirements of EN-1 the applicants use BS4142 which gives guidance on working out whether there are adverse effects. The assessment under BS4142 is based on the difference between rating level (which	SASES quotes one of the issues that BS4142 refers to in relation to context, however the most relevant and important issue that BS4142 refers to has been omitted.

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	is the physical sound level plus corrections for things like tonal character) and the background noise level. BS4142 says that a difference of +5dB is likely to be an indication of an adverse impact, depending on the context and that a difference of around 10dB is likely to be an indication of significant adverse impact.	The specific text that SASES does not include, and which is a material omission, states: *1) The absolute level of sound. For a given difference between the rating level and the background sound level, the magnitude of the overall impact might be* ***greater for an acoustic environment where the residual sound level is high*** *than for an acoustic environment where the residual sound level is low.* ***Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background. This is especially true at night.*** *Where residual sound levels are very high, the residual sound might itself result in adverse impacts or significant adverse impacts, and the margin by which the rating level exceeds the background might simply be an indication of the extent to which the specific sound source is likely to make those impacts worse.* It is clearly evident that background sound levels and predicted rating levels are low. This is a critical point and its importance cannot be underestimated. SASES has failed to correctly apply BS4142
5	5. BS4142 indicates that in taking into account context, the assessment should (amongst other things) consider: "*The character and level of the residual sound compared to the character and level of the specific sound. Consider whether it would be beneficial to compare the frequency spectrum and temporal variation of the specific sound with that of the ambient or residual sound to assess the degree to which the specific sound source is likely to be distinguishable and will represent an incongruous sound by*	Please see response at ID4.

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	comparison to the acoustic environment that would occur in the absence of the specific sound." (section 11(2))	
6	6. As noted above, the receiving acoustic environment is exceptionally quiet.	The Friston area is not designated for 'tranquillity' (such as is the case for parts of areas like North York Moors National Park) and no evidence is given by SASES to support their assertion of the character of Friston's noise environment. Friston can be considered a relatively quiet rural area, but there is no indication that it is different to any other rural area in the UK.
7	7. Even applying the +5dB threshold, EN-1 requires the applicant to take steps to mitigate and minimise the noise, beyond restricting the rating level to no more than +5dB above background.	The Applicants have shown commitment to mitigating and minimising the noise which can be evidenced by the very low and further reduced predicted noise levels following the latest modelling exercise (see ***East Anglia ONE Onshore Substation Operational Noise Assessment*** (REP5-022)).
8	8. The applicants predict noise levels that are lower than the DCO requirement. However, that is only because the applicants are not taking into account the likely presence of tonal characteristics in the noise, which add up to 6dB to the predictions. They have not considered the uncertainty and likely variation in the predictions.	Requirement 26 of the ***draft DCO*** (updated at Deadline 7, document reference 3.1), accounts for the potential presence of tonal elements by specifying the noise limit as a rating level (in accordance with BS4142) and this is an appropriate and acceptable way of controlling noise from substations, as well as one which has precedent from the vast majority of DCO applications for offshore wind farms. There is no requirement within BS4142 to correct predicted noise levels for uncertainty, simply to use an appropriate calculation methodology to minimise uncertainty which the assessment has done.
9	9. The applicants say that tonality will be considered as part of the design process, but it is well established that noise from transformers and associated	The in-phase combination effect (constructive interference) would occur in a vanishingly small number of cases; even the slightest

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	equipment is dominated by the second harmonic of the line frequency that is a pure tone of 100 hertz. There is a further a special feature about this scheme, which is that there will be two substations relatively close together with similar equipment. That brings to the fore a phenomenon referred to in BS4142 which indicates that it is necessary to establish whether there are standing waves or interference patterns. Where two similar tonal sources are heard together at the receptor, the combined level can be 3dB greater than the result obtained in standard noise models.	offset between similar noise sources would destroy the effect. It is incorrect to say that this is particularly an issue with electrical infrastructure only; it can equally apply to any set of identical noise sources. No DCO application has been required to assess such an effect, simply as it is highly improbable. These points, no doubt, are intended to cast doubt on the confidence in relation to these types of features. This is a matter that can be adequately addressed during the detailed design of the substations.
10	10. On the evidence before the examination significant adverse effects cannot be excluded. Based on the background level of 18dBA at receptor SSR9, and proposed DCO limit at SSR3, the rating level could be more than 10dBA greater than background, even when the DCO limit is being complied with.	The background noise level results at SSR9 were not used within the assessment as, following analysis of the measurement position and data, they were not considered representative of the property itself. Another monitoring location was used as a proxy. This has been explained fully in our earlier responses to East Suffolk County (ESC) comments (REP5-010 and REP4-025). The data from SSR9 was reported purely for completeness and transparency.
11	11. The application also includes single figure predictions for each location, with no indication of confidence limits. These figures are of course subject to uncertainty: the correctness of the model; the accuracy of the manufacturers source data; effective atmospheric conditions; the interference effects described above; and errors on the part of the operator the model. There is no validation against existing comparable sites.	BS4142 does not require that additions or corrections are made to predicted rating levels due to uncertainty; it requires only that uncertainty is minimised, particularly in calculations, and recommends that an appropriate calculation methodology is used. BS4142 recommends that the ISO 9613-2 calculation methodology is used as this will minimise uncertainty in calculations. ISO9613-2 is a calculation method for predicting sound levels under meteorological conditions most favourable for the propagation of sound, namely downwind or temperature inversions.

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		Therefore, excess attenuation due to soft ground is inherent within the methodology and is appropriately accounted for.
12	12. Atmospheric conditions are extremely important because the predictions used here include large amounts of excess attenuation due to the presence of a soft ground. But t in frequently occurring weather conditions, such as temperature inversions and wind from source to receiver, those excess attenuation figures will not arise. Accordingly there will be many occasions when sound levels are materially higher than the central single figures that have been predicted.	Please see response at ID11.
13	13. The applicants argue that the only thing that really matters is achievement the DCO requirement limits. However, these limits apply on all days including those when there are atmospheric conditions favourable to noise propagation from source to receiver. The noise limits are therefore likely to be exceeded. Applying retrospective mitigation measures will be extremely demanding and challenging from a technical point of view, as well as time consuming. It is therefore vital that the applicants really do face up to the need for much more accurate predictions of what noise levels will be.	Please see response at ID11.
14	14. The DCO requirement might also be interpreted to mean that the monitoring scheme only applies on two occasions: after initial commencement, and six months after.	Requirement 27 of the ***draft DCO*** (updated at Deadline 7, document reference 3.1) provides for a reasonable and proportionate monitoring scheme which has precedent from previous DCO applications for similar projects.
15	15. The following further steps are required: a. The correct background noise levels should be used, and the applicants' own analysis indicates it should be a lower figure than those assumed even in the revised submission (see further the submission in response to the applicants' D4 submissions);	The correct background noise levels are used within the assessment and the method by which these background noise levels have been derived is entirely appropriate and robust. Use of a rating level in Requirement 27of the ***draft DCO*** (updated at Deadline 7, document reference 3.1), which is related to the background noise level is, in itself, a further conservative measure, particularly given that BS4142 recommends that, in low background

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	b. Predictions should be made including an estimate of uncertainty, with full consideration of tonality, frequently occurring atmospheric conditions and constructive interference; c. It needs to be properly established that the amount of mitigation necessary is practically achievable.	/ low rating level situations (such as is the case with the Projects) the absolute noise level is more important that the difference between rating and background. There is no requirement within BS4142 to correctly predicted noise levels for uncertainty and it is already established, through the use of the ISO 9613-2 methodology, that weather conditions favourable for propagation have been accounted for. Tonality has been fully addressed within the assessment and Requirement 27 of the ***draft DCO*** (updated at Deadline 7, document reference 3.1) provides further commitment on the matter of tonality due to the inclusion of a rating level limit.
16	16. On construction noise assessment, the approach completely out of line with modern practice in major projects. The assessment criteria are based on a misapplication of British Standard 5228 and modern practice, which is highlighted by recently issued guidance from Highways England which is threshold of *significant observed adverse effect level* at the point where the applicants place the boundary between "no impact" and "negligible impact". The applicants have got this wrong. The lowest observed adverse effect level should be set at background level in accordance with Highways England's approach.	SASES' consultant's critique is a difference of interpretation, not a misinterpretation nor misapplication by the Applicants. Considerations other than the level of noise produced by construction activities must be taken into account when determining significance (duration of effect, number of people affected etc.). It is also important to note that, notwithstanding the difference of interpretation, the conclusions of the assessment would be unaffected were the SASES' critique accepted, and the assessment updated (i.e. no significant impacts). Highways England's approach (referenced in the Design Manual for Roads and Bridges LA111) was published after submission of the Applications. Notwithstanding, SASES' consultant is incorrect in asserting that LA111 requires the Lowest Observed Adverse Effect Level (LOAEL) to be set at background level; it refers, rather, to baseline noise levels ($L_{Aeq,T}$)

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17	17. This is critical because exceedances of significant observed adverse effect level have to be avoided. The provision of noise insulation as a means of avoidance is not very appropriate for rural areas. This is the first major project that Mr Thornely-Taylor has come across in recent times where there is no provision for the enforcement of a requirement to employ the best practical means to reduce noise. In other words, it's normal for a major project to require in the CoCP that the contractor applies for prior consent under Section 61 Control of Pollution Act. In the absence of that, enforcing a failure to follow the CoCP be a long drawn out process, possibly necessitating proceedings.	The provision of noise insulation is no less acceptable in rural areas than it is in urban areas. The Outline Code of Construction Practice includes a requirement to submit a Construction Phase Noise and Vibration Management Plan and the Applicants consider that this is an appropriate mechanism to control construction noise however the updated ***OCoCP*** submitted at Deadline 7 (document reference 8.1) confirms an intention to apply for a Section 61 consent under the Control of Pollution Act 1974 as a mechanism to control construction noise.
18	18. By way of closing legal submissions, it was noted that the examining authority cannot be confident that the mitigation measures relied upon can in fact be relied upon to deliver the mitigation required. That has important legal consequences, not least because of well-established principles of EIA law. The failure to set an appropriate noise limit could lead to serious and profound enforcement issues. The examining authority should be satisfied that the DCO requirements are capable of being complied with; and the expert evidence of SASES is clear that the ExA cannot be confident of that.	The Examining Authority can have confidence that mitigation measures will be effective in achieving the Requirement 27 within the ***draft DCO*** (updated at Deadline 7, document reference 3.1), and hence avoiding significant adverse impacts. Mitigation has been effectively applied at numerous substations for offshore wind farms throughout the UK.
4(d) – FLOOD RISK AND DRAINAGE		
19	1. SASES called Clive Carpenter to give evidence. His qualifications are BSc, MSc and Chartered Hydrogeologist & Water & Environmental Manager. He has more than 30 years' experience in water resources, flood risk and drainage and, amongst other projects, is currently the Lead Advisor-Designer on an 85km length of construction phase storm water run-off assessment & drainage design of HS2 Railway, covering >40km2 of construction site, > 500 attenuation ponds and >300 discharge treatment units and outfalls.	No further comment.

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20	2. Friston is highly susceptible to storm water run-off flooding and it is established that storm run-off from the proposed sub-station site areas will flow directly into Friston Village. The hardstanding at the substations will increase storm water run-off peak and total flows into Friston compared to the baseline, increasing flood risk. The construction phase removal of vegetation and soils will also increase peak and total flows along with sediment deposition.	As stated in the ***Outline Operational Drainage Management Plan*** (OODMP) (REP6-017), the Applicants have committed to maintaining the pre-development Q^{BAR} rate, meaning there will not be an increase in storm water run-off, peak or total flows, into Friston. During detailed design the Applicants will devise a sustainable drainage system (SuDS) that works with the natural topography of the site and which will ensure drainage into the proposed SuDS basins so that all storm water is captured. The final SuDS design will be designed to store and attenuate flows up to and including the 1 in 100 year event, including an allowance of 40% for an increase in storm water due to climate change. During detailed design a construction phase drainage management plan will be developed in consultation with SCC and will require to be approved by the local planning authority, and will include appropriate mitigation measures, to ensure that surface water runoff is appropriately managed.
21	3. Because of the existing constrictions to the flows that pass through the village, it is necessary to consider not only the peak flows, but also the total flows that leave the development site which also need to be maintained at pre-development levels to avoid flood risk. The failure by the applicant to assess total flows is a failure to identify, assess and mitigate flood risk. The need to address total flows is confirmed in EA strategies, SCC's flood risk management strategy, and paragraph 5.7.22 of EN-1.	Please see ID22.
22	4. The applicant's characterisation of flood risk is weak. It is necessary to follow a source-pathway-receptor approach. The applicant states that the greenfield run-off rate, which is the rate that is being sought to be achieved, will be confirmed during detailed design. This is inadequate because without confirming those flows	As presented in **section 3.2** of the ***OODMP*** (REP6-017), currently the characterisation of flood risk is informed by a range of data sources, including the Environment Agency, with additional data from Suffolk County Council and the BMT (2020) report. Furthermore, the Applicants have committed that the final ODMP

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	it is not possible to design the development to achieve the objective of limiting flows to pre-development levels.	will additionally be informed by hydrological tests undertaken to determine existing conditions. Within the OODMP greenfield runoff rates have been calculated, utilising industry standards, and included within the indicative drainage design. The Applicants have also considered the implications on the design should the greenfield runoff rate be lower than current calculations (i.e. taking a conservative approach). The Applicants note that the final greenfield runoff rates will need to be confirmed during the detailed design. The Applicants do not deem it necessary to undertake percolation testing at this stage, however it will be undertaken prior to the final SuDS being designed so that it can be informed by the existing conditions and hydrological profile.
23	5. The pathway, which is the route from the site to the village in this case, has not been assessed in any detail by the applicant. The applicant has failed to identify that soil erosion will potentially increase and that the mobilisation of that soil and its transposition to and deposition in the drainage network forms part of the increased flood risk within the village.	The Applicants have committed to ensuring that the discharge from the onshore substations and National Grid substation will remain at pre-development levels up to and including the 1 in 100 year plus 40% climate change event. Therefore, there will not be any increase in water from the site to the village, nor will there be an increase in soil erosion or mobilisation as the existing greenfield runoff rate will be retained. The village of Friston will not be at increased risk of flooding.
24	6. The applicant has also failed to give specific consideration to the receptors within the village, for example residential properties, and whether there are specific needs of particular residents. Instead, they have chosen to argue that because they say they can mitigate the flood hazard, they do not need to assess individual receptors. This is not a reasonable approach to flood risk assessment.	Please see ID25. None of the receptors mentioned will be affected by the onshore substations and National Grid infrastructure.
25	7. As to scheme design, the applicant has failed to demonstrate that there is a viable infiltration solution for operational surface water management. The infiltration rate of 10mm/hour is used to assess whether it is possible to get water	The Applicants state within the ***OODMP*** (REP6-017) that the infiltration rate of 10mm/hour has been assumed, as per the Suffolk County Council (SCC) SuDS design guidance (2018), and in

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	into the ground at all: it is an assumption. The applicant has in fact failed to demonstrate that an infiltration rate as high as 10mm/hr actually exists on site. Infiltration rates in the natural environment can vary by more than six orders of magnitude. This leads to consideration of the factor of safety (FOS). The sensitivity analysis by the applicant is inadequate. It should use a FOS of 10 (as is used on the outputs of the model) for the inputs from the source. Accordingly, without using an appropriate FOS and without undertaking infiltration testing, there is a significant constraint on the confidence to the sizing of the storage volumes required to provide storage for infiltration or for discharge to the watercourse.	agreement with SCC within ***Table 13*** of the ***draft Statement of Common Ground with ESC and SCC*** (document updated at Deadline 7, document reference ExA.SoCG-2.D1.V2). The actual infiltration rate will be determined through percolation testing post consent. As also stated within the ***OODMP*** (REP6-017), a factor of safety (FOS) of 10 has been adopted in accordance with the approach requested by SCC. The Applicants recognise and note within the ***OODMP*** (REP6-017) that the SuDS design cannot be detailed at this stage, and that the final design will be confirmed post consent once a hydrological catchment model has been developed and percolation testing undertaken at the onshore substation and National Grid substation locations.
26	8. All of that limited analysis and design relates to the operational phase. There is no detail of how the sizing and design of the construction phase of the project will be undertaken. The construction working area is considerably larger, perhaps 2 to 3 times larger than the operational phase. Stripping of soil and vegetation will increase run-off and turbidity. The issue with turbidity is significant because turbidity will prevent infiltration and will also prevent the water from being released from the site, because the EA will impose strict turbidity limits. Removal of this turbidity requires treatment which requires longer extended periods for the water to be retained on site. The viability of a construction surface water management design is entirely unproven.	The Applicants note that the ***OODMP*** (REP6-017) relates to the operational phase. Post consent and during detailed design, the construction phasing, programme and methodology will be subject to review and the Applicants will provide a construction phase drainage management plan reflective of these. It will be developed in accordance with industry standards ensuring that mitigation measures related to runoff and quality are incorporated and this will be subject to approval by the relevant regulators.
27	9. Such a scheme design will have to work for both peak and total flows and across a range of design periods. The scheme design will have to work for the 1:100 year flood event, but also for the 1:30 and 1:1 year event. The applicant does identify the "Qbar" flow (1 in 2 year return period) which will be released from	The updated ***OODMP*** (REP6-017) provides calculations and details of the parameters utilised in the indicative design including FOS, emptying times, basin areas and volumes. The ***OODMP*** (REP6-017) also states that all of these details around the SuDS design

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	the attenuation lagoons, but there are no details on the scheme required to enable that discharge to be achieved. There are no details of infiltration rate, floor area, volume, inflow design storm(s), FOS, emptying times etc.	will be confirmed post consent, once the hydrological catchment modelling and ground investigation and testing has been undertaken.
28	10. The applicant's calculations show the required storage volume in the operational ponds exceeds the design volume by 50% and relies on "freeboard" and landscaping to provide the reported required volume to prevent over-topping. [The freeboard is the additional volume beyond that required for the design storm and is required to allow for other uncertainties (e.g. wave action due to high winds etc).I must not be used to accommodate the design flood itself.] The applicant's methodology is an unacceptable approach.	Please see the updated ***OODMP*** (REP6-017) for updated calculations which do not rely on the freeboard.
29	11. The attenuation ponds are above ground level on their downslope sides, meaning tens of thousands of cubic metres of water could be released into Friston if there is an uncontrolled overtopping and/or failure of the pond bunds. No reservoir inundation modelling has been undertaken, and no consideration has been given of the consequences of such a failure.	As shown within ***Appendix 3*** and ***Appendix 5*** of the ***OODMP*** (REP6-017), the attenuation ponds are not proposed to be held above ground level. There is no risk that 'tens of thousands of cubic meters of water' would be released into Friston.
30	12. The most recent submissions at Deadline 4 (Outline Operational Drainage Management Plan and Outline Code of Construction Practice) contain insufficient detail or analysis to demonstrate that: flood risk has been adequately assessed; that the surface water schemes are viable; and that they will achieve adequate flood risk mitigation.	Both the ***OODMP*** (REP6-017) and the ***Outline Code of Construction Practice*** (REP6-003, to be updated at Deadline 7, document reference 8.1) were updated at Deadline 6. The Applicants disagree that flood risk has been inadequately assessed.
AGENDA ITEM 5 – ONSHORE TRAFFIC AND TRANSPORT **Friday Street Junction**		
31	1. The Friday Street junction and Snape crossroads are accident black spots. This is recognised in the ES (Chapter 26) and if you look at figure 26.6 this shows Friday Street as collision cluster 3 and Snape crossroads as collision cluster 4.	N/A

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	https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-001384-6.2.26.6%20EA1N%20ES%20Figure%2026.6%20Collision%20Cluster%20Locations.pdf	
32	2. The Friday Street junction is a key junction as the A1094 is the artery for the coastal area of East Suffolk. It feeds the town of Aldeburgh and the villages en route but is also the access for Snape Maltings which aside from its concert hall has developed into a significant retail destination. Furthermore close to Friday Street there is (i) a new development currently in the course of construction which includes a potato processing plant and weighbridge (ii) and a large farm shop/supermarket and café which is currently being expanded.	N/A
33	3. Residents who use the local road network on a daily basis are concerned that mitigation measures being proposed at Friday Street will cause congestion on the A12. If there is congestion south of Friday Street, traffic will take to the country lanes to the east of the A12 and end up joining the B1069 which runs by and is the access to Snape Maltings as well as being the main route through Snape. This traffic will then join the A1094 at Snape crossroads which is a difficult junction to navigate as evidenced by the fact that it is an accident black spot. In this context although cluster 3 is identified as an accident black spot it is not considered to be an issue with congestion – see figure 26.7 of the ES. This is contrary to local residents experience. https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-001385-6.2.26.7%20EA1N%20ES%20Figure%2026.7%20Sensitive%20Driver%20Delay%20Locations.pdf	Please see response to ID35.
34	4. Into this mix has to be added the additional traffic which will result from the Sizewell C project and EDF's plans to construct a four arm roundabout at Friday	Please see response to ID36.

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	Street, the fourth arm being necessary to join a new bypass which is to be constructed around the villages of Stratford and Farnham to the east or Friday Street.	
35	5. There are concerns as whether the assessments are complete and correct for example: a) It would appear that the conclusions are based on traffic flow data collected on a single day namely Wednesday, 5th June 2019 - see paragraph 2.6.3 of the Royal Haskoning July 2020 report. Is it really satisfactory to rely upon a single day's data? What about data in the peak of the holiday season in July and August when there are many events and festivals taking place in East Suffolk not least Latitude and at Snape Maltings. b) No account has been taken of the new development on the A1094 near Friday Street or of the increasing popularity or the Friday Street farm shop/retail/food destination. c) Snape crossroads is not considered by the ES to be a problem in respect of congestion, this is not residents' experience not least given this is the access to Snape Maltings. d) The potential displacement of traffic onto the rural lane network joining the A12 to the B1069 does not appear to have been considered and the consequent road safety and congestion issues.	a) ***Chapter 26 Traffic and Transport*** of the ES (APP-074), **Table 26.26** confirms the Applicant's traffic data for the A1094 (and other routes) shows a good correlation with traffic counts undertaken by SZC and SCC and therefore has been independently validated. The Applicants' Comments on ***SASES Deadline 5 Submissions, ID39*** (REP6-031) confirm that the baseline traffic conditions have been established in accordance with DfT guidance which directs that the assessment should be based on normal conditions (i.e. not during school holidays). (Neutral) baseline traffic conditions were discussed and agreed with SCC and Highways England during pre-application scoping and are confirmed as acceptable in the respective SoCG submissions (ESC and SCC SoCG updated at Deadline 7, document reference ExA.SoCG-2.D1.V2; Highways England SoCG (REP1-065)). From an Environmental Impact Assessment (EIA) perspective, normal ('neutral') conditions represent a robust baseline as they provide a better indicator of the magnitude of effect of the Projects' traffic, whereas an elevated baseline, would inadvertently reduce the magnitude of effect based on the percentage increase in traffic. **Section 2.2.7** of the ***Outline Construction Traffic Management Plan*** (OCTMP) (REP6-009) contains measures for the management of the Projects' Heavy Goods Vehicle (HGV) traffic during peak holiday periods and events.

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		b) baseline traffic conditions have been derived by applying factors that reflect the localised growth in housing and employment. These factors were supplied by SCC. More details can be found at 26.5.7 Anticipated Trends in Baseline Condition of the ES (APP-074). c) The Applicants' detailed response to Snape Crossroads can be viewed in the ***Applicants' comments on SASES Deadline 1 submissions, ID6*** (REP4-023). This assessment approach was confirmed as acceptable by SCC during their verbal representation at ISH4. d) Please refer to ***The Applicants' Comments on SASES Deadline 5 Submissions, ID39*** (REP6-031) which confirm the delay at Friday Street signals (and associated magnitude of effect) would be negligible and would not therefore, induce traffic to reassign to other routes.
36	6. It is curious that a roundabout solution was rejected as a mitigation measure for the Scottish Power projects because it caused delay to the travelling public (see paragraph 4.1.5 of the Royal Haskoning report dated 28 January 2020) and yet it is considered to be appropriate for Sizewell C in combination with the Scottish Power projects.	***Traffic and Transport Clarification Note*** (REP4-027) assesses a three arm-roundabout within the public highway envelope as a potential proportional solution to the Projects' traffic demand. For this arrangement, the assessment identified capacity concerns and rejected this option as a potential solution. The SCZ solution is designed to be permanent and to accommodate SZC, the Projects' and future traffic demand. It has larger land take (beyond the highway envelope) which facilities a roundabout with approaches and geometry that provide the requisite capacity. As set out in their Deadline 5 comments (REP5-055), SCC recognise that the SZC roundabout is the "optimum solution" to account for the SZC traffic cumulative effects.

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37	7. In the Transport and Traffic Clarification Note there are references to the interaction with Sizewell C and at paragraph 8 it is stated that: "*the SZC roundabout would provide a modern standard compliant solution at the Friday Street junction and would therefore be appropriate to mitigate the cumulative impact of the traffic generated by both the projects and SZC in the event that these projects are constructed at the same time*"	Refer to Applicants' response to ID36.
38	8. The clarification note refers back to the Sizewell Projects CIA (Traffic and Transport) which was submitted by the Applicants at Deadline 2 and therefore prior to the traffic signal proposal subsequently agreed with SCC.	The Friday Street traffic signal scheme has been a number of months in development and takes full account of the interaction with SZC traffic demand As confirmed by the SZC Implementation Plan (SZC Examination reference APP-599) the roundabout solution forms one of the first pieces of infrastructure to be delivered by the SZC project and would be delivered within the early years of that project. The Friday Street traffic signal scheme design has been informed by the early delivery of the SZC roundabout solution and accordingly, accommodates the Projects' traffic demand with adequate spare capacity and utilises measures that can quickly be removed to accommodate changes to the highway environment. The ***OCTMP*** updated at Deadline 6 (REP6-009) sets out and controls the timing for the delivery of the traffic signal solution at Friday Street junction.
39	9. In section 2.4 of the CIA on page 14, which addresses Road Safety, collision cluster 4 is not mentioned and at section 2.4.4 the A1094 (on which the Snape crossroads is a major junction) collisions are stated to be "just below the national average for comparable roads". The Applicants have also caused confusion because in the ES table 26.33 on page 103 Chapter 26 includes what is known as	The approach to assessing the potential road safety impacts was determined with the Councils and Highways England during pre-application engagement. Suffolk County Council's response to ExA Q1.18.9 (REP1-188) confirms the methodology is acceptable to the highway authority. The approach involves detailed consideration of

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	link 6 in cluster 3. As can be seen from figure 26.5, link 6 is the A1094 from Friday Street junction to the junction with the B1121 and is divided into three sections 6a, 6b and 6c, where 6b is the Snape crossroads and is identified as being of high sensitivity. This omission/confusion casts doubt on the conclusions of the Sizewell Projects CIA made in respect of road safety.	collision clusters and collision rates utilising data collected by the Police on collisions (known as Stats 19 data) to determine user groups (including cyclists and HGVs) and causation factors This is detailed within section 26.5.4 of ***Chapter 26 Traffic and Transport*** (APP-074) which concludes for Cluster 4, there are no emerging road safety patterns or trends that could potentially be exacerbated by an increase in traffic.
40	10. There is also the obvious question of the timing of when the SZC four arm roundabout is to be constructed at Friday Street and how that might affect congestion and safety. The Sizewell Projects CIA blithely states at paragraph 72 that "*the SZC application confirms that it would be intended that the roundabout would be delivered off-line meaning that the existing Friday Street junction would be largely unaffected during construction*" What does "*largely unaffected*" mean?	The Applicants direct SASES to the ***OCTMP*** updated at Deadline 6 (REP6-009) which sets out and controls the timing for the delivery of the traffic signal solution at Friday Street junction. The final CTMP is to be approved pursuant to Requirement 28 of the ***dDCO*** (document updated at Deadline 7, document reference 3.1).
41	11. Paragraph 17 then states *"the provision of a roundabout would provide a modern standard compliant solution at this location and would therefore be appropriate to mitigate****……(once the roundabout is complete and open)*** [emphasis added] but presumably not before.	Please refer to Applicants' response to ID38 for the interaction of the Friday Street traffic signal scheme with the SZC roundabout solution. ***Traffic and Transport Clarification Note*** (REP4-027) confirms the Friday Street signal solution satisfies DfT standards, has been subject to an independent road safety audit and provides demonstrable capacity for forecast traffic demand. In their Deadline 5 comments (REP5-055) SCC confirm they are satisfied that the Friday Street traffic signal solution addresses their road safety concerns.

ID	SASES Comment	Applicants' Comments
42	12. Paragraph 86 states "*with regards to the potential for cumulative impact during the six-month period when the roundabout is being constructed (as advised within the SZC ES), the SZC assessment does not include consideration of this scenario, and no temporary mitigation is proposed*"	N/A
43	13. These inconsistent and oddly contradictory statements cause one to question: a) what will really happen at Friday Street when EDF are constructing a four arm roundabout whilst the Applicants' projects are being constructed; and b) what the consequences will be for (i) congestion on the A12 and at the Snape crossroads and (ii) for safety on rural lanes and at the Snape crossroads.	Please refer to Applicants' response to ID38.
44	14. Finally of course there is the ongoing issue of the other proposed offshore energy projects and what that will mean for traffic at this junction and the consequent knock on effects.	The Applicants have carried out an appropriate cumulative impact assessment.
HGV movements at site resulting from new proposals on finished ground levels		
45	15. Scottish Power is proposing to reduce the finished ground levels of its eastern substation by 2m and of the National Grid substation by 0.7m. SASES is unconvinced as to the calculations that Scottish Power has made in respect of the resulting HGV movements. This has been commented on in the SASES submission which was made in relation to construction at Deadline 4. https://infrastructure.planninginspectorate.gov.uk/wp-content /ipc/uploads/projects/EN010077/EN010077-003532-sases%20deadline	The material export generated by the lowering of floor levels would be accommodated by stockpiling and programming to ensure the assessed peak HGV demand is not exceeded.

ID	SASES Comment	Applicants' Comments
	%204%20bh%20final%20comments%20 Applicants%20D3%20submissions%20re%20construction.pdf	
Access Point 13		
46	16. Figure 26.2 in the ES shows the locations of the access points. https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-001380-6.2.26.2%20EA1N%20ES%20Figure%2026.2%20Access%20Locations%20and%20Associated%20Onshore%20Infrastructure.pdf	N/A
47	17. Access point 13 is the new access road which is to be built as part of the project. It is work number 34 and it is part of both the Scottish Power NSIP and the National Grid NSIP. Originally this was called the "operational" access road but now it is merely the access road.	Access point 13 is for the Projects' construction AIL movements (4No.) and infrequent operational traffic. It also accommodates National Grid construction employee movements and infrequent operational traffic.
48	18. Access Point 13 can only be reached by either driving through Friston Village or through Sternfield. The road through Sternfield is unsuitable for heavy traffic and generally increasing traffic on this road is highly undesirable given it has a single lane humpback bridge and there are residential properties immediately adjacent to the road.	The ***Outline Construction Traffic Management Plan*** (OCTMP) (REP6-009) confirms that Projects' HGV traffic is prohibited through Friston and Sternfield. The ***Outline Access Management Plan*** (REP6-011) clarifies that operational HGV deliveries to Access 13 will be directed to use the Suffolk Lorry Route Network.
49	19. SASES has been very concerned as to the use which will be made of this road not least as the Applicants have stated that National Grid construction employees will use this road. That of course begs a number of questions. a) Why do National Grid construction workers need to use this road (which will result in further traffic through Friston and more likely given its access to the A12,	a) The Projects' employees will access the substation sites via Access 10 and a purpose-built temporary haul road. Access 13 may be used by National Grid for construction personnel access only (no HGVs). … **Table 26.23** of ***Chapter 26*** of the ES, ***Traffic and Transport*** (APP-074) and **Table A26.2** of ***Appendix 26.2*** (APP-528) provides

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	through Sternfield which is highly undesirable for the reasons stated) when the Applicants' do not? b) Is this access road part of the Scottish Power NSIP or the National Grid NSIP? At the moment the DCOs show it as being part of both and it is included in both the definition of the Scottish Power NSIP and the National Grid NSIP. c) Why does it need to be 7m wide when the tarmaced part of the B1121 accessing it is only 5.1m wide? Although this road will be the means of delivering the four AILs, there is no reason why the road should not be temporary widened for this purpose and then reduced to a width which is only necessary for maintenance which was how this road was initially presented. There are obvious concerns that this road is being designed for the purpose of facilitating the construction/expansion necessary for other projects to connect at the National Grid connection hub.	details of the numbers of construction traffic movements forecast to pass along links 5 and 7 (through Friston) for the sequential and simultaneous construction of the Projects respectively. It can be noted that during the construction phase, links 5 and 7 would experience a worst case increase in total daily traffic flows of up to 5% for the sequential construction of the Projects and 6% simultaneous construction of the Projects which will not lead to significant impacts. b) Work No. 34 is associated development. It has been included in both paragraph 1 and paragraph 2 of Schedule 1, Part 1 of the draft DCO because it is associated with both the generating station NSIP and the electric lines NSIP. Work No. 34 will only be constructed once. Requirement 38 has been updated at Deadline 7 to secure that Work No. 34 will not be constructed more than once. c) The operational access road will be **up to** 7m in width, with the final design (and width) being established post consent. It is essential that this road is built to an appropriate engineering standard to accommodate the AIL deliveries. The road will be bunded by hedgerows to reduce its visual impact.
AGENDA ITEM 6 – PUBLIC RIGHTS OF WAY (PROW)		
50	1. The closure and diversion of Public Rights of Way (PRoWs) in the onshore development area represent an unacceptable and serious loss of amenity to residents and visitors. This is especially true of the permanent closure of Footpath 6 (E-354/006/0) in Friston. The relevant policies from NPS-EN-1 applicable to this issue are: a) Paragraph 5.10.2 "*The Government's policy is to ensure there is adequate provision of high quality open space (including green infrastructure) and sports*	The Applicants have proposed three different diversions of Footpath E-354/006/0 in Friston, each of varying lengths and each connecting up to another footpath, as shown in the ***Permanent Stopping up of Public Right of Way Plan*** (REP3-009). This is detailed further in the ***Outline Public Rights of Way Strategy*** (REP3-024). The Applicants note NPS-EN-1 and the paragraphs

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	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 promoting healthy living. Green infrastructure in particular will also play an increasingly important role in mitigating or adapting to the impacts of climate change." b) Paragraph 5.10.21 "*The IPC should also consider whether mitigation of any adverse effects on green infrastructure and other forms of open space is adequately provided for by means of any planning obligations… Any exchange land should be at least as good in terms of size, usefulness, attractiveness and quality and, where possible, at least as accessible.* c) Paragraph 5.10.24 "*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.*"	stated and have considered these throughout the planning and application process of both of the Projects.
The Substation Site and Footpath 6		
51	2. The Friston site is the only one of the 8 zones considered which involves permanent closure of PRoWs. This should have been given more weight in the RAG Assessment and Site Selection process.	As stated within ***Chapter 4 Site Selection and Assessment of Alternatives*** of the ES (APP-052), during the initial site selection process the Applicants considered footpaths as a receptor and worked to limit the number of footpaths permanently closed. The Applicants have undertaken a robust site selection process presented within ***Chapter 4*** of the ES, ***Site Selection and Assessment of Alternatives*** (APP-052) and stands by its decision to locate the onshore Substation and National Grid infrastructure at Grove Road, Friston, thereby benefiting from the existing screening afforded by Laurel Covert and Grove Wood and the proximity to the existing 400kV overhead lines.

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52	3. The permanent closure of Footpath 6 through the substation site results in the loss of:- a. An historic Parish and Hundred boundary, which is also believed to be Pilgrim's Way. b. A well-used and attractive circular walk from village (other walks in village are inferior to this) c. Links to and from the outlying historic farmhouses and the village. d. Views of Grade II* Listed Parish Church over a considerable distance from the north will be obliterated by the substations. This affects the setting of the Listed building. It is to be noted that northern part of village near to the Church is the oldest part of village.	The Applicants note that impacts on the amenity of this footpath have been addressed within ***Chapter 30 Tourism, Recreation and Socio-Economics*** of the ES (APP-078), and that impacts from a cultural heritage perspective have been considered in detail within the ***Clarification Note – Archaeology and Cultural Heritage*** (REP1-021) and ***Heritage Assessment Addendum*** (REP4-006). In recognition of such impacts the Applicants have committed to reinstating a historic footpath to the South West of Fristonmoor (PERM37 of the ***Permanent Stopping up of Public Right of Way Plan*** (REP3-009)).
53	4. The proposed alternative route to Footpath 6 is inferior, and therefore contrary to EN-1, due to:- a) The new footpath runs close to the substations and Grove Road, resulting in a loss of tranquillity due to the visual intrusion and noise impact of the substations. b) It is a far less direct route than that existing. The draft Development Consent Order gives the length to be stopped up to be 693M with the diverted route to be 1345M. This is an increase of 94% i.e almost twice the distance, which is significant particularly for those accessing the outlying farmhouses. It also makes the current one hour circular walk substantially longer and may deter those who regularly walk their dogs twice a day. c) The motion sensitive lighting and CCTV system proposed for the substations will be intrusive to walkers on the PRoW.	Please see responses at ID51 and ID52. a) The Applicants recognise the loss of a section of Footpath 6 but note the expansion of the PRoW network to be provided by the Applicants in the area, including the provision of short, medium and long alternative PRoW routes around the substations and linkage to an existing PRoW to Knodishall. The Applicants' ***Clarification Note Noise Modelling*** (REP4-043) provides an assessment of operational noise upon PRoWs. The Applicants note that impact upon users of PRoW within the area will be transient in nature as PRoWs are used in a transient way and onshore substation noise would only be experienced for a short period of time during the day which the user passes by within an audible range of the onshore substations.

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	d) The mitigation planting will be ineffective for many years and parts of the new route will have direct views of the substations in perpetuity due to gaps in the planting. e) SPR propose hard surfacing on the alternative route instead of the current wide grass paths on Footpath 6. This is inappropriate in a rural area and increases its urbanisation.	The predicted impact on the PRoW as a result of the implementation of the Projects has been determined as being negligible in significance. b) The Applicants have proposed three different permanent routes, each of varying lengths – short, medium and long – to allow stakeholders to utilise this footpath for various amenity reasons. For further details on this please see ***section 3.5.13*** of the ***Outline Landscape and Ecological Management Strategy (OLEMS)*** (REP6-007) c) The PRoWs have been designed so as not to interact with the substations security systems. d) As detailed in the ***OLEMS*** (REP3-030), the Applicants have chosen faster growing species to ensure that the mitigation is effective as quickly as possible. e) As detailed in ***section 3.4*** and ***Appendix A*** of the ***OLEMS*** (REP6-007), the PRoW surface proposed is to the relevant highway authority's permanent PRoW specification.
54	5. The use of PRoWs on the substation site during the construction period has not been properly considered or thought through, resulting in a loss of connectivity. a) The proposed temporary diversions for the substation site shown on REP3-008, Sheet 7, are for the early period of construction only (potentially just for enabling works) as these diversions are in the location of the construction of the SPR substations themselves. b) The permanent closure of FP6 is required early in construction phase and it is not clear what diversions, if any, are to be provided. The haul road (marked as 88M wide on the Works Plans REP3-006) enters the substation site where the alternative PRoW route is proposed. Where the haul road enters the substation	a) With regards to TEMP23a and TEMP23b, this is correct. b) The diversions to be provided in place of Footpath E-354/006/0 are detailed within the ***Temporary Stopping up of Public Right of Way Plan*** (REP3-008) and the ***Outline PRoW Strategy*** (REP3-024). As set out in the ***draft DCO*** (updated at Deadline 7, document reference 3.1), alternative PRoW must be provided to the satisfaction of the relevant highway authority prior to the extinguishing of the existing PRoW.

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	site there is also an area for the marshalling/turning of lorries (See Works Plans Sheet 7 – work No 26 coloured brown, REP3-006) c) Construction Consolidation Compounds are proposed in same location as the alternative PRoW route, to the north of the haul road (see Indicative Construction Plan APP-101). It is not demonstrated that the proposed alternative PRoW can be established during the construction period. d) It is not clear that the alternative route can be established prior to the closure of FP6 and, if so, what arrangements would be made to cross the haul road in this constricted and dangerous area. It would seem likely that walkers will be diverted onto Grove Road itself with all its inherent dangers. e) Ground levels are proposed to be lowered by 2M on the east of the substation site and it is not apparent how this interacts with levels of the new PRoW or Grove Road itself, which would be at a higher level. f) The Outline Landscape & Ecological Management Strategy (REP3-030/031) paragraph 149 states "the proposed permanent diversions will be in place prior to the existing PRoW being stopped up. Any temporary diversions to be used during the construction phase will be agreed post-consent with the relevant highway authority". This is a contradictory statement in that the Applicant is obliged to have the permanent diversion in place before stopping up FP6, but also implies that diversions may be necessary. The Applicant should explain how the PRoW network is to be kept open during construction prior to DCO consent. g) The Draft Development Consent Order (REP3-011/012) paragraph 32(1) states "No stage of the authorised development is to commence that would affect a public right of way in Schedule 3 or Schedule 4 (footpaths to be stopped up) until a public rights of way strategy, including making up of an alternative right of way (where appropriate) have been submitted to and approved by the relevant highway authority in consultation with the relevant planning authority. Paragraph 32(2) goes to say "*Any alternative public rights of way must be implemented in*	c) SASES are referring to an outdated works plan. ***Works Plan (Onshore)*** (REP3-006) shows the extent of Work No. 31 which does not conflict with the alternative PRoW in that area. d) As stated within the ***Outline PRoW Strategy*** (REP3-024), safety measures will be implemented at any PRoW where haul roads or other construction related activities cross a PRoW and presents a number of measures to be considered at the detailed design stage. e) The Applicants consider this to be a matter for the detailed design of the Projects. f) The Applicants do not deem this a contradictory statement. Within the ***OLEMS*** submitted at Deadline 3 (REP6-030) the Applicants are simply stating that any proposed diversions will be in place before the existing ones are stopped up, so as to not leave stakeholders without a replacement footpath. g) The ***Outline PRoW Strategy*** (REP3-024) sets a reasonable framework for the PRoW interaction. This will be finalised in the final PRoW strategy which requires approval from the relevant highways authority. h) The Applicants considered that the provision of an area for amenity in addition to the PRoW diversion warranted discussion with SCC. As this has been rejected it no longer forms part of the scheme currently or in the future. The Applicants understand that the routing of the alternative PRoW as presented in the ***Outline PRoW Strategy*** (REP3-024) has been agreed with SCC. j) The Applicants have developed a robust ***Outline Public Rights of Way Strategy*** (REP3-024) which provides for temporary and permanent diversions to the existing PRoW network.

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	accordance with the approved public rights of way strategy". The Applicant should be obliged to show that this is achievable. h) The above difficulties have been identified in the Statement of Common Ground with the Councils (REP1-072). Table 31 on Public Rights of Way ID 15.10 (pp 209 to 211) includes the following proposal, which is not agreed between the parties: "*Provision of a dedicated area amenity space for PRoW users for a period of 10 years from establishment (establishment to be early in the Projects' construction period)*". This proposal was presented to Friston Parish Council on 30 November 2020 and said to be a field near the village which people could use for exercise in place of the PRoW network. This was rejected at the Parish Council meeting with support from a County Councillor as being totally unsuitable and inadequate mitigation for the loss of amenity of the PRoW network. i) Footpath17 (E-260/017/0) on the western boundary of the substation site, which forms part of the circular walk at the substation site, is also subject to considerable diversions/closure, which further inhibits use of the footpath network.	
Temporary Closures of PROWs along the haul road/cable route		
55	6. Footpath 2 (E-354/002/0), a bridleway heading east from Grove Road is part of the Sandlings Way and currently offers residents an additional, and potentially long-distance, walk from the village of Friston. This footpath is however proposed to be used as a pre-construction access and also subject to diversions due to the location of the haul road and Consolidated Construction Compound (Work No 27 on Sheet 6 of REP3-006). The use of this footpath as a pre-construction access raises safety issues for walkers, cyclists and horses, which have not been addressed, and further deprives residents and visitors of a valuable amenity. The diversions on the stretch of FP2 from Friston to Knodishall will continue throughout the construction period as this section of the haul road will be used as access to the substation site by HGVs.	The specific public right of way exists over private land which is used by the land owner and other parties for vehicular access to properties and land served by those tracks. The Applicants have agreed terms with the land owner for use of the tracks for pre-construction access and will have full regard to the shared use of access tracks with members of the public who may be on foot, on bicycle or on horse.

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56	7. There is a total of 26 PRoWs affected by closures and diversions (some in multiple locations) on the 9km length of the haul road/cable route. This can be compared with East Anglia One Bawdsey to Bramford cable route of 37km where 41 PRoWs were affected. The Thorpeness to Friston route therefore proportionately affects 3 times more PRoWs than for the EA1 project.	As stated within ***Chapter 4 Site Selection and Assessment of Alternatives*** of the ES (APP-052), during the initial site selection the Applicants considered footpaths as a receptor and worked to limit the number of footpaths which would be affected by the development. The Applicants have only proposed to temporarily or permanently close PRoW's where it is absolutely necessary.
57	8. The high number of footpath closures is due to the chosen location of the landfall site and the character of the landscape with more open and accessible land, including Nationally Designated sites, which draw visitors to the area. Visitors to the area will be deterred by the inconvenience of the footpath diversions and the close proximity of noisy, dusty and visually intrusive works. This will cause harm to the tourist economy.	Please see response at ID56.
58	9. The total length of closures along the haul road/cable route is 8.433km and the total length of the diversions is 17.258km (figures taken from the draft DCO). This is unacceptably high and demonstrates the flawed site selection process, both for the SPR projects and the National Grid project, including the selection of the most western substation zone.	Please see response to ID56.
59	10. FP25 (Ref E-106/025/0) is a by-way open to all traffic linking B1353 at Aldringham to Sizewell Beach. The by-way forms part of the Emergency Escape Route for Sizewell, but is proposed to be diverted in the vicinity of the haul road/cable route. It is not clear whether access will be maintained for vehicles, horses and cyclists. Sizewell Gap Road is the only classified road in and out of Sizewell and SPR also plan closures on this road. SPR appear not to have properly considered the Emergency Plan necessary for the nuclear plants and Sizewell village.	As stated in ***Table 2.1*** of the ***Outline Public Rights of Way Strategy*** (REP3-024), the temporary diversions offered, one approximately 299m and the other approximately 360m, will both be open to all traffic. This means access will be maintained for vehicles, horses, cyclists and, if required, as an emergency escape route for Sizewell.

2.5 Deadline 5 – BEIS OTNR Pathfinder Clarification Note

ID	SASES Comment	Applicants' Comments
1.	During 2020 the BEIS Offshore Transmission Network Review undertook detailed evaluation of possible economies and environmental benefits resulting from the offshore coordinated connection of windfarms, rather than continuance of the existing radial approach to connections. This work, which was largely undertaken by National Grid ESO on behalf of BEIS, was presented in a webinar on 17th December 2020. The BEIS Review reported potential capital cost savings in excess of £6bn resulting from coordination of offshore transmission works, provided the earliest possible start was made (around 2025). Stakeholders were requested by BEIS to come forward with proposals for Pathfinder projects capable of early implementation to verify the anticipated benefits. SASES considers that coordination of the SPR EA1N and EA2 projects makes a very suitable candidate for such a Pathfinder by allowing a reduced number of cables and trenches to an existing National Grid substation site, thereby substantially reducing onshore environmental impacts. And this Pathfinder is understood to be compliant with the existing Ofgem regulatory environment.	The Applicants at ISH2 and subsequent submission ISH2 Speaking Note: Onshore Siting, Design and Construction (Agenda 3a) - Strategic Siting – Approach (REP3-085), sets out the CION process and explains all the connection points that were considered, including Bramford, and why they were discounted. In these submissions, the Applicants also confirmed the CION process concluded that the most economic and efficient connections for EA2 and EA1N, while considering environmental and programme implications, were into the circuits in or around Leiston.
2	At OFH3 a proposal was made ([REP1-227], p175) for the alternative delivery of the output of the EA1N and EA2 windfarms by a coordinated 1.7GW HVDC Bipole link from an offshore platform to Bramford NGET substation, via a reopened Bawdsey to Bramford cable route. This proposal was reiterated by SASES at ISH4 [EV-055] as a possible "Pathfinder" project in support of the BEIS OTNR review,	In order to achieve the desired 1700MW rating, the cable voltage would need to be increased to around 525kV, whereas current HVDC cables are limited to 320kV to 400kV. Furthermore, the bipole configuration is not compliant with National Grid ESO's Security and Quality of Supply Standard since the maximum normal infeed loss risk offshore is 1320MW.

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	but was only described in outline. This note provides additional information and clarification.	The Applicants would also highlight that to date all HVDC windfarm connections in operation are of the symmetrical monopole technology (as proposed on East Anglia THREE) and the Applicants understand there are no offshore wind development bipole schemes in design or under construction. It is understood SASES thought East Anglia THREE is a bipole scheme which it is not. We note that SASES do not give any indication of the scale of the offshore infrastructure which would be necessary to support such a technology option.
3.	Described most simply, the proposal is to replicate the approach taken by the Applicant's East Anglia 3 project (understood to be a 1.4GW HVDC Bipole connection to a single converter station at Bramford, adjacent to the NGET substation there) but scaled up by 20% to 1.7GW, again using HVDC Bipole with a single converter station at Bramford.	SASES are mistaken as to the technology to be deployed in East Anglia THREE. East Anglia THREE transmission system proposes the use of symmetrical monopole HVDC technology. This decision followed extensive, early engagement with the supply chain to identify the most feasible technological solution. This technology is restricted to 1320MW of transmission capacity so suggesting a scaling up by 20% to accommodate 1700MW is not feasible. A 1700MW project would require two HVDC links and the costs associated with this would not be viable. It is also worth noting that other offshore windfarms currently being developed in the UK today (e.g. Dogger Bank, Norfolk Boreas) have also opted for the symmetrical monopole HVDC technology.
4.	National Grid ESO has told SASES that so long as the OFTO system design does not have a single point of failure which could lead to an Infeed Loss of greater than 1320MW then use of HVDC Bipole to deliver 1.7GW should be acceptable. In any case the 1320MW SQSS Infeed Loss limit is under review as a result of the BEIS OTNR and is likely to be increased to perhaps 1800MW.	The power output of the East Anglia THREE offshore windfarm is defined at the Offshore Grid Entry Point (OffGEP). Output at the OffGEP will not exceed 1320MW as per the maximum capacity of the technology. Paragraph 4.1 (i) of the Contracts for Difference Scheme for Renewable Electricity Generation Allocation Round 3: Allocation Framework 2019 states that after all phases are complete, the CfD Unit will have a capacity of no greater than 1500MW. For this reason, and as stated in REP3-085, the Applicants have

ID	SASES Comment	Applicants' Comments
	SASES notes that East Anglia 3 is understood to use HVDC Bipole technology and has a power output of 1.4GW, which is in excess of 1320MW, but is nevertheless presumably compliant with the SQSS.	defined two separate projects of 900MW and 800MW capacities in order to retain the necessary flexibility in competing in the CfD process with a view to delivering the maximum capacity of the projects. Furthermore, the most recent Crown Estate Leasing Round 4 capped new projects at a maximum capacity of 1500MW.
5.	During questioning the Ofgem representative advised at ISH2 [EV-034u] that the Pathfinder configuration as described could be compliant with the existing Ofgem regulatory regime as both wind farms were in the same ownership.	At ISH2 on 2nd December, the OFGEM representative stated he did not think EA1N and EA2, and other developments already in the planning process, were likely to be impacted by the Offshore Transmission Network Review (OTNR). OGEM's subsequent submission at deadline 4 (REP4-096) reaffirmed this position and that the Energy White Paper issued on the 14th December 2020, did not change this view, further stating the neither OFGEM or the Government wanted to act as a barrier to projects already in flight.
6.	The proposed scaling up from the EA3 project is likely to require a correspondingly scaled-up footprint for the converter station at Bramford, but the Applicant is believed to already own sufficient suitable land there to meet the requirement.	Please see response to ID3 above. The technology proposed cannot be scaled up.
7.	NGET have previously confirmed acceptance of the power output of the EA1N and EA2 projects at Bramford (early CION assessments refer).	Please see response to ID1 regarding the CION process and its conclusions.
8.	It is believed that the EA3 project is, or soon will be, reconstructing the haul road from Bawdsey to Bramford for the purposes of installing the cabling for EA3, so demonstrating that site access to the cable route remains achievable.	This is not accurate. East Anglia THREE, under its own DCO, has rights to partially reconstruct the haul road for the purposes of allowing access at certain points along the cable corridor for construction of jointing bays and the pull of cables through the pre-installed ducting system.

ID	SASES Comment	Applicants' Comments
9.	This proposal would require some level of ambition on behalf of the Applicant, but it is noted that the existing HVAC proposals for EA1N and EA2 include significant technical ambition by proposing an increase in the system voltage from 220kV to 275kV.	The Applicants welcome the recognition that they are demonstrating significant technical ambition with the use of 275kV voltage systems.