The Great Grid Upgrade

Sea Link

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Executive Summary

- The purpose of this document is to set out National Grid's consideration of the duty to seek to further the purpose of conserving and enhancing the natural beauty of the Suffolk & Essex Coast & Heaths Area of Outstanding Natural Beauty (AONB) in accordance with Section 85(A1) (s85) of the Countryside and Rights of Way Act 2000 (CRoW Act). The technical note has been prepared to:
 - Provide a single source of reference for material relating to the s85 duty within the DCO application documentation;
 - Explain how the proposed acid grassland enhancement aligns with the AONB's Natural Beauty and Special Qualities Indicators; and
 - Expand the inter-project cumulative assessment relating to the Natural Beauty and Special Qualities Indicators of the AONB.
- Ex1.0.2 This document sets out the design considerations that have been adopted for the Suffolk Onshore Scheme in relation to the AONB including siting the Saxmundham Converter Station away from the AONB to limit potential effects on the setting as well as using a trenchless cable construction technique for the section of HVDC cable corridor to the east of the landfall. A total length of HVDC cable route within the AONB would be approximately 2.47 km.
- The total area of land within the AONB which would be temporarily affected during construction would be 7.61 ha of which 91% is comprised of acid grassland. A proportion of this area (4.05 ha) has been disturbed and reprofiled due to the expansion of the adjacent golf course. The other half (east of Leiston Road) is relatively undisturbed. The 7.61 ha of acid grassland temporarily affected would be fully reinstated once construction activity is completed in accordance with measures set out in Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk (Clean) [AS-059]. As acknowledged in this document, it would take time for the acid grassland to be established following reinstatement.
- Since there will be a two-year lag-time following reinstatement before functional acid grassland is restored, and possibly a slightly longer time-period before all the grassland matures, a parcel of land has been identified in the Order Limits in which a 6 ha area of acid grassland would be enhanced and subsequently maintained for a 10 year period. This would provide a net enhancement of at least 6 ha with a further 4.05 ha of acid grassland which would be restored to a higher quality than its current condition.
- The proposed acid grassland enhancement within the AONB is considered to target the Natural Beauty and Special Qualities indicators of the Suffolk & Essex Coast & Heaths AONB as it has multifunctional purposes to further the purpose of the AONB, notably including landscape, ecology and Biodiversity Net Gain.
- As there are no likely significant effects on the AONB from the Suffolk Onshore Scheme (alone), any significant inter-project cumulative effects are only likely for a short and temporary period, and there would be an overall increase in the extent and quality of acid grassland habitat within the AONB due to the enhancement proposed and secured, the Applicant considers that the s85 duty to seek to further the purposes of the AONB has been complied with.

1. Introduction

1.1 Introduction

- This document sets out National Grid's consideration of the duty to seek to further the purpose of conserving and enhancing the natural beauty of the Suffolk & Essex Coast & Heaths Area of Outstanding Natural Beauty (AONB) in accordance with Section 85(A1) (s85) of the Countryside and Rights of Way Act 2000 (CRoW Act). National Landscapes is the rebranded name for AONBs. The Suffolk & Essex Coast & Heaths National Landscape is referred to as an AONB in the Development Consent Order (DCO) application documentation and in this document, as the name change is not statutory.
- In December 2024 the Department of Environment, Food and Rural Affairs (Defra) published "Guidance for relevant authorities on seeking to further the purposes of Protected Landscapes" (Defra, 2024). This sets out how the Protected Landscapes duty is intended to operate and provides broad principles to guide those in complying with it. The guidance has been taken into consideration and helped shape how National Grid has sought to fulfil the duty.
- 1.1.3 This technical note has been prepared for the following reasons:
 - to provide a single source of reference for material relating to the s85 duty within the DCO application documentation;
 - to provide further information on the relevance of the proposed acid grassland enhancement with regard to the Natural Beauty Indicators and Special Qualities Indicators and an update on the specific proposals following landowner discussions since the submission of the application; and
 - to provide an expanded inter-project cumulative assessment relating to the Natural Beauty Indicators and Special Qualities Indicators of the AONB.

1.2 Approach taken in Application Documents

- 1.2.1 A key document used by all stakeholders to inform the baseline for the Suffolk & Essex Coast & Heaths AONB is the 'Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) Natural Beauty and Special Quality Indicators v1.8' (LDA Design, November 2016) (LDA Design , 2016). This sets out the Natural Beauty Indicators and Special Qualities Indicators of the AONB and then gives further information specific to the Suffolk & Essex Coast & Heaths AONB.
- The landscape baseline appendix sets out the Natural Beauty Indicators with further information relating to them in Table 1.1 of Application Document 6.3.2.1.B ES Appendix 2.1.B Landscape Baseline [APP-096]. The landscape assessment appendix (Application Document 6.3.2.1.C ES Appendix 2.1.C Landscape Designation and Landscape Character Assessment [APP-097]) provides an assessment of the Suffolk Onshore Scheme on the Natural Beauty Indicators.

- The Planning Statement (Application Document 7.1 Planning Statement [AS-057]) provided an assessment on each of the Special Qualities Indicators. The baseline for the Special Qualities from the 2016 published document was not presented with this assessment. Those points relevant to landscape and visual matters were included in the landscape baseline appendix (Application Document 6.3.2.1.B ES Appendix 2.1.B Landscape Baseline [APP-096]).
- The following Application Documents should be referred to for further details regarding the assessment of effects on the AONB arising from the Suffolk Onshore Scheme and compliance with the s85 requirement:
 - Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual [APP-048];
 - Application Document 6.3.2.1.B ES Appendix 2.1.B Landscape Baseline [APP-096];
 - Application Document 6.3.2.1.C ES Appendix 2.1.C Landscape Designation and Landscape Character Assessment [APP-097];
 - Application Document 6.4.2.1.2 Landscape Context and Designations [APP-208];
 - Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan - Suffolk [AS-059];
 - Application Document 7.1 Planning Statement [AS-057]; and
 - Application Document 6.4.2.2.A (B) Phase 1 Habitat Survey Report (including Badgers and Important Hedgerows) [AS-028].

2. AONB Proposed Project Design Considerations

2.1 Routeing and siting

- The AONB and its setting were considered in the early stages of the routeing and siting for the Suffolk Onshore Scheme. All five landfall areas of search were located within the AONB and this was unavoidable due to the need for the reinforcement to connect into the Sizewell area in East Anglia. The Suffolk Converter Station site was located away from the AONB to limit potential effects on the setting of the AONB. This was stated as the preferred option by Natural England (explained within paragraph 5.3.4 of Application Document 8.2 Options Selection and Design Evolution Report (October 2023) [APP-369] and page 3 of Natural England's response within the Scoping Opinion within Application Document 6.15 Scoping Opinion 2022 [APP-300]).
- The landfall and a section of the High Voltage Direct Current (HVDC) cable route lies within the Suffolk & Essex Coast & Heaths AONB. This would comprise underground HVDC cable laying, including vegetation removal, temporary displacement of agricultural land and acid grassland, temporary infiltration ponds and pipes along the cable route as well as construction access along the cable route. At the landfall there would be a temporary drilling rig, a construction compound to the east of Leiston Road (B1122) and construction access from Leiston Road to the compound. The land to the east of the landfall compound to the edge of the AONB at the coast, would not be affected due to the trenchless cable construction which would be entirely underground. Once construction is complete all areas of disturbed ground would be reinstated with no above ground permanent infrastructure present. The total length of the HVDC cable route within the AONB would be approximately 2.47 km.

2.2 Area of affected land within the AONB

- The total area of land within the AONB which would be temporarily affected during construction has been calculated to understand the types of habitats affected and to inform the proposed area of enhancement.
- Calculations have been run based on a likely 40 m working corridor along the length of the HVDC cable corridor which lies within the AONB, as well as the entire landfall compound area, to provide further information on the likely habitat types that would be affected using the Phase 1 habitat data (Application Document 6.4.2.2.A (B) Phase 1 Habitat Survey Report (including Badgers and Important Hedgerows) [AS-028]). These calculations include areas of land with trenched cable construction and the landfall compound. The below sets out the percentage of habitats and approximate areas within the AONB that would be affected:
 - Acid grassland semi-improved = 7.61 ha (90.96 %);
 - Poor semi-improved neutral grassland = 0.70 ha (8.31 %);
 - Intact hedge species-poor = Less than 0.1 ha (Less than 1 %);

- Broadleaved woodland plantation = Less than 0.1 ha (Less than 1 %);
- Hardstanding = Less than 0.1 ha (Less than 1 %);
- Bare ground = Less than 0.1 ha (Less than 1 %);
- Mixed woodland semi-natural = Less than 0.1 ha (Less than 1 %); and
- Broadleaved parkland/scattered trees = Less than 0.1 ha (Less than 1 %).

3. Approach to s85 Duty

3.1 Consultation

The s85 duty to seek to further the purpose of the AONB has been addressed through collaboration with the Suffolk & Essex Coast & Heaths National Landscape Partnership with meetings and correspondence during the pre-application period. It has also been informed by collaboration between technical disciplines including ecology, planning and landscape and visual. Natural England was not involved in these discussions at the pre-application period due to its resource constraints. They have since attended a meeting on the 28 August 2025 along with the National Landscape Partnership to discuss s85 matters and proposals for acid grassland enhancement. At the request of both parties, additional information was provided to clarify the exact areas of land temporarily affected by the Suffolk Onshore Scheme and the areas of acid grassland enhancement proposed. This information was set out in an email communication issued on the 25th September 2025 and is contained in Table 3.1 below.

3.2 Proposed approach

- As noted in the previous section, the habitat types affected within the AONB predominantly comprise acid grassland (91%). It is therefore considered appropriate to target enhancement of this habitat type. During the pre-application stage, a site selection process was undertaken to identify potential sites in the AONB where acid grassland creation and/or enhancement could be undertaken. Technical criteria included the following:
 - Land within the Suffolk & Essex Coast & Heaths AONB.
 - An area of 6 hectares (ha), on the basis that initially the potential area of acid
 grassland that would be temporarily affected was approximately 12 ha. As there
 would be no permanent loss of acid grassland it was determined using professional
 judgement that the area of enhancement should be at least half the size of that
 temporarily affected. Despite the area of acid grassland being temporarily affected is
 now smaller (reduced in size from 12 ha to 7.61 ha), the area of enhancement at 6
 ha has not been reduced.
 - Areas of arable land and/or degraded acid grassland.
 - Outside a designated area for nature conservation (SSSI, Special Protection Area).
 - Next to an existing area of acid grassland or heathland to provide greater habitat connectivity.
 - Avoiding land within other consented projects Order Limits, such as Sizewell C.
 - Avoiding land within village greens and areas immediately adjacent to or within settlements.

- Parcels of land were identified and those closest to the Suffolk Onshore Scheme's Order Limits were then taken forward with landowner discussions to determine the viability of incorporating the land within the Order Limits and delivering the required acid grassland enhancement. Site surveys were also undertaken in parallel to ensure the suitability of the land parcels.
- The plot identified in the Order Limits is approximately 26 ha to enable flexibility over how and where the 6 ha of enhancement can be delivered in conjunction with landowner requirements. Information regarding the acid grassland enhancement is contained in Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk [AS-059] including the requirement for the parcel of land to be secured and managed for 10 years. The Planning Statement (Application Document 7.1 Planning Statement [AS-057]) sets out how the enhancement of this area of land would contribute to and align with the aspirations contained in the Suffolk & Essex Coast & Heaths National Landscape Management Plan 2023-28 as well as each of the Natural Beauty and Special Qualities indicators of the Suffolk & Essex Coast & Heaths AONB. An update is provided in Table 3.2 and Table 3.3 of this Technical Note to reflect the latest proposals for enhancement of acid grassland only (acid grassland creation is no longer proposed) which has resulted due to ongoing landowner discussions.
- As stated in the Planning Statement (**Application Document 7.1 Planning Statement** [**AS-057**]), the enhancement of the area of land within the AONB is considered to contribute to aspirations within the Suffolk & Essex Coast & Heaths AONB Management Plan 2023-28 (National Landscape Partnership, 2023), as set out as follows:
 - The Management Plan Policies note that land management should conserve and enhance natural beauty, whilst providing for nature recovery, which it is considered that the enhancement provisions would contribute towards.
 - The Management Plan Policies note the requirement for local distinctiveness to be conserved and enhanced, and as acid grassland is a key habitat in the AONB it is considered the enhancement promotes this.
 - The Management Plan Policies highlight that climate change mitigation, including nature recovery, should be a key component of land management practices, towards which the enhancement of acid grassland would contribute.
 - The Management Plan notes that much of the AONB was once heathland and some
 has been converted to agricultural land use which results in a decline in biodiversity.
 The enhancement of acid grassland would assist in increasing biodiversity
 (improved botanical diversity, reduction in invasive species presence, improved
 habitat structure for wildlife such as reptiles, invertebrates and birds).

3.3 Acid Grassland Enhancement Parcel

The parcel of acid grassland enhancement identified within the Order Limits (refer to Figure 4 of Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan - Suffolk (Clean) [AS-059]) provides a multifunctional enhancement with landscape, ecological and biodiversity provision within the context of the Suffolk & Essex Coast & Heaths AONB.

- All areas of acid grassland identified in 6.4.2.2.A (B) Phase 1 Habitat Survey Report (including Badgers and Important Hedgerows) [AS-028] are within the AONB. A proportion of these areas would be affected by the temporary landfall compound and the construction of the HVDC cable corridor and construction access. The approximate total area of acid grassland that would be affected by the Suffolk Onshore Scheme has been estimated based on an assumed 40 m working corridor along the length of the HVDC corridor which lies within the AONB as well as the entire landfall compound area. Any other areas of acid grassland within the Order Limits, such as those to the east of the landfall compound, would fall within the proposed trenchless technique and would therefore not be affected by the Proposed Project.
- Table 3.1 below outlines the anticipated total area (ha) of acid grassland that would be temporarily affected by the construction activity at the landfall and along the HVDC corridor within the AONB.

Table 3.1 Acid Grassland Areas: affected and enhanced

	Area (ha)
Landfall Compound	2.00
HVDC Corridor (40 m working corridor) east of Leiston Road	1.56
HVDC Corridor (40 m working corridor) west of Leiston Road	4.05
Total area of acid grassland temporarily affected	7.61
Proposed area of acid grassland enhancement	6.00

- As shown in the table above the total anticipated area of acid grassland which would be temporarily affected during the construction phase of works would be 7.61 ha. Of this area, approximately half has recently (since 2024) been disturbed and reprofiled due to the expansion of the golf course. The other half (east of Leiston Road) is relatively undisturbed. The 7.61 ha of acid grassland temporarily affected would be fully reinstated once construction activity is completed in accordance with the measures set out in Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk (Clean) [AS-059]. As acknowledged in this document, it would take time for the acid grassland to be established following reinstatement.
- The grassland is typical of acid grassland, being of relatively low structural diversity, grass-dominated and with relatively few wildflowers. Therefore, a closed acid grassland sward that resembles the original is likely to establish within one to two growing seasons following soil reinstatement, subject to management as outlined in Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk [AS-059]. Accordingly, functional acid grassland can expect to have been restored within approximately three years of being cleared. In previously undisturbed locations (i.e. east of Leiston Road) the restored sward may take several further years to mature and become indistinguishable from the grassland around it. Consequently Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk [AS-059] commits to managing these areas of acid grassland reinstatement for a five-year period.

Since there will be a two-year lag-time following reinstatement before functional acid grassland is restored, and possibly a slightly longer time-period before all the grassland matures, a parcel of land has been identified in the Order Limits in which a 6 ha area of acid grassland would be enhanced and subsequently maintained for a 10 year period. This would mean that for approximately five to seven years there would be both the restored functional grassland and the enhanced grassland in parallel, based on the reasonable assumption that the restored functional grassland (7.61 ha) would remain as such once the five-year management period ends. This would provide a net enhancement of 6 ha with a further 4.05 ha of acid grassland being restored to a higher quality than its current condition (area to the west of Leiston Road). The management timelines of the restored and enhanced areas are illustrated in **Error! Reference source not found.** below. This is secured through Requirement 8 of **Application Document 3.1 (C) draft Development Consent Order [AS-043]**.

A - Market		Yea	ır 1			Yea	ır 2			Ye	ar 3			Ye	ar 4			Ye	ar 5			Ye	ar 6			Yea	ır 7			Yea	ar 8			Yea	ar 9			Year	10	_
Activity	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2 I	Q3 (<u>)</u> 4
Start of Project Construction																																								
Enhancement and management of 6 ha acid grassland parcel																																								
Acid grassland within AONB temporarily affected for construction at Suffolk landfall and HVDC corridor																																								
Restoration and management of 7.61 ha acid grassland (temporarily affected during construction)																																								
Restoration of acid grassland (west of Leiston Road)																																								
Fully restored acid grassland (west of Leiston Road)																																								
Restoration of acid grassland (east of Leiston Road)																																								
Fully restored acid grassland (east of Leiston Road)																																								

Plate 3.1 Acid Grassland Restoration, Enhancement and Management Timeline

As discussed in the meeting of the 28 August 2025 between the Applicant, Natural England and the National Landscape Partnership, the land identified in the Order Limits is much larger than 6 ha to provide flexibility over how and where enhancement can be delivered as part of the detailed design. As a result of ongoing landowner discussions, the landowner has indicated that the parcel of land within the south of the site as identified below on **Error! Reference source not found.** would be the preferred area for the acid grassland enhancement which equates to 6 ha.

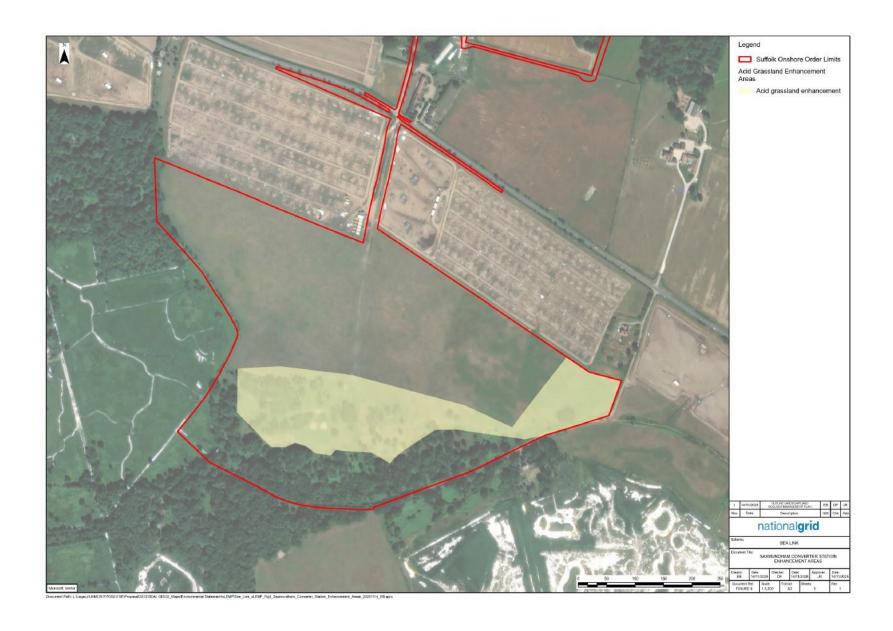


Plate 3.2 Preferred area of acid grassland enhancement

3.4 Natural Beauty and Special Qualities Indicators

- The below tables (Table 3.2 and Table 3.3) set out how the acid grassland enhancement works respond to the Natural Beauty and Special Qualities Indicators along with the effects at each stage of the Suffolk Onshore Scheme. For the Suffolk Onshore Scheme alone, there are no significant adverse effects on the Natural Beauty and Special Qualities of the AONB.
- Information has been combined from the landscape baseline appendix (Application Document 6.3.2.1.B ES Appendix 2.1.B Landscape Baseline [APP-096]), landscape assessment appendix (Application Document 6.3.2.1.C ES Appendix 2.1.C Landscape Designation and Landscape Character Assessment [APP-097]) and the Planning Statement (Application Document 7.1 Planning Statement [AS-057]) in order to present all relevant information in one place.

Table 3.2 Natural Beauty Indicators

Natural Beauty Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
Landscape Quality	Close-knit interrelationship of semi-natural and cultural landscapes (notably sea, coast, estuaries, reedbeds, Sandlings heath, forest, farmland and market towns) and built heritage features (Martello towers, pill boxes, river walls); Important areas of heath and acid grassland supporting a high number of protected species populations; Strong overall character with some landscape in lower condition due to arable and pastoral agricultural use; and "A small number of large scale and long established elements on the coast of the AONB divide opinion, being regarded by some as incongruous features and by others as enigmatic; for example the complex military site at Orford Ness. The power stations at Sizewell also divide opinion in this way, however in many views, particularly of the B station, the apparent uncluttered simple appearance and outline as well as the lack of visible human activity, partially mitigate the adverse visual impacts".	maintenance (year 1): Minor adverse (not significant) Operation and maintenance (year 15): Negligible adverse (not significant)	Acid grassland is noted as an important habitat within the AONB indicators (LDA Design, 2016) supporting a high number of protected species. The area of enhancement would assist in forming a larger area of enhanced condition of this habitat contributing towards local distinctiveness of this unique character of the AONB and contributing to an improvement in landscape quality. For the duration of the enhancement there would be a net increase in good quality acid grassland, including potentially improved botanical diversity, reduction in invasive species presence, improved habitat structure for wildlife such as reptiles, invertebrates and birds (and reduced pesticide use also benefitting wildlife).

Natural Beauty Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
Scenic quality	Unique character defined by semi-natural and cultural landscapes and built heritage features, creating a juxtaposition of elements in a relatively small area; Contrast of sea cliffs and shingle beaches to flat and gently rolling heaths and farmland and varied habitats and land cover; Striking landform features (coastal cliffs, shingle spits, estuaries and beaches); Opportunities for long distance and panoramic views along shingle beaches and shallow bays and more enclosed traditional farmland; Landscape displays a 'rhythm' dictated by eastwest rivers and estuaries; Varied habitats create a mosaic corresponding to natural geography; Elevated vantage points provide impressive views over low lying coast areas; Strong aesthetic, spatial and emotional experiences with juxtaposition of colours and textures; and Perceptual qualities include dark skies, bird sounds and big 'Suffolk skies'.	maintenance (year 1): Negligible adverse (not	Acid grassland is noted as an important habitat within the AONB indicators (LDA Design , 2016), which contributes to defining the unique scenic character and semi-natural landscape. The enhancement would increase the quality of the area of this habitat within the AONB which helps define the unique character and distinctive sense of place.
Relative wildness	Absence of major coastal road or rail route with lightly trafficked access routes contribute to the relatively undeveloped character of the Suffolk coast;	Construction (including decommissioning): Minor adverse (not significant)	Increasing the quality of acid grassland within the AONB would contribute to maintaining the relatively undeveloped character of the AONB and increase the quality and diversity associated with this semi-natural habitat. For the duration of

Natural Beauty Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works		
	Pockets of relative wildness associated with coast, estuary and forests set within the largely farmed and settled landscape; Big 'Suffolk skies' and expansive views offshore emphasise sense of openness and exposure along coastline and heaths; Forestry plantations create a sense of enclosure contrasting with the open and more exposed coast and heath; and Isolated villages and built heritage assets contribute to character.	Operation and	the enhancement there would be a net increase in good quality acid grassland, including potentially improved botanical diversity, reduction in invasive species presence, improved habitat structure for wildlife such as reptiles, invertebrates and birds (and reduced pesticide use also benefitting wildlife). Despite the location near the road network of the A1094, the enhancement of acid grassland would result in a comparatively wilder and more tranquil land use within the AONB as a result of the improved land management practices.		
Relative tranquillity	Areas of semi-natural habitat with a general absence of development and apparent human activity, enhanced by sounds (bird calls, wind, waves) and relatively darks skies contribute to relative tranquillity; and Localised detractors include seasonal visitors, low flying aircraft noise and urban fringe development.	Construction (including decommissioning): Minor adverse (not significant) Operation and maintenance (year 1): Negligible adverse (not significant) Operation and maintenance (year 15): Negligible adverse (not significant)	The area of acid grassland enhancement would increase the quality of semi natural habitat contributing to a sense of relative tranquillity. The AONB indicator also notes that some landscape is in a poor condition which the enhancement of the parcel of poor quality acid grassland would assist in improving. Despite the location near the road network of the A1094, the enhancement of acid grassland would result in a comparatively wilder and more tranquil land use within the AONB as a result of		

Natural Beauty Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
			the improved land management practices.
Natural heritage features	Evidence visually of geology, sedimentation and geomorphology with low crumbling cliffs, steep banks of pebbles on shingle beaches; Striking geomorphological features including single spit at Orford Ness and river estuaries; and Nationally and internationally protected sites and species.	Construction (including decommissioning): Minor adverse (not significant) Operation and maintenance (year 1): Minor adverse (not significant) Operation and maintenance (year 15): Negligible adverse (not significant)	The area of acid grassland enhancemen would result in a net increase of good quality acid grassland, including potentially improved botanical diversity, reduction in invasive species presence, improved habitat structure for wildlife such as reptiles, invertebrates and birds (and reduced pesticide use also benefitting wildlife). The provision of well structured acid grassland will in turn provide nesting habitat for protected species such as skylarks and foraging (and potentially nesting) habitat for woodlarks.
Cultural heritage	Presence of villages and small towns and built heritage assets; historic field and settlement patterns and evidence of land reclamation dating back to the 12th century; Designed landscapes important, including at Thorpeness; "The Sizewell nuclear complex highlights evidence of time depth across the landscape. Both the nuclear complex and the nearby infrastructure associated with offshore energy	Construction (including decommissioning): Negligible adverse (not significant) Operation and maintenance (year 1): Negligible adverse (not significant)	The enhancement of acid grassland would not directly support but would not adversely affect this indicator.

Natural Beauty Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
	generation are part of a developing story of the Suffolk's Energy Coast"; "Some of the military structures by reason of their scale, design, and cultural importance have now become an accepted part of the landscape, such as the Martello towers or the pagodas. Whereas other infrastructure, such as electricity pylons and the power stations are still cited by some as visual detractors in the landscape, despite the test of time"; Harmonious balance between rural landscape and smaller settlements; Landscape character and diversity of habitat types dependent on wide range of land management practices; and Associations with numerous writers, artists and composers.	Operation and maintenance (year 15): Negligible adverse (not significant)	

Table 3.3 Special Qualities Indicators

Special Qualities Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
Health and well-being	Extensive rights of way network offering access to key landscape types and between centres of	Construction (including decommissioning): Minor adverse (not significant)	The enhancement of acid grassland would not directly support but would not adversely affect this indicator.

Special Qualities Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
	population and key tourist destinations; Areas designated as open	Operation and maintenance (year 1): Minor adverse (not significant)	
	access land provide opportunities for health improvement; and	Operation and maintenance (year 15): Minor adverse (not significant)	
	Opportunities for a range of active and passive recreational pursuits on the coast and offshore and inland including sporting events.		
Community	Strong sense of local and family heritage and evidence of long-established connections to	Construction (including decommissioning): Minor adverse (not significant)	It is noted that the enhancement of acid grassland may be also able to promote habitats favourable for skylark which would assist in creating and furthering the
	the landscape – such as fishermen and larger estates;	Operation and maintenance (year 1): Minor adverse (not	strong links between the community and the landscape by providing amenity enhancement from nearby recreational
	Active commoners, farmers and artistic community demonstrate strong links between communities and their landscape; and	Significant) Operation and maintenance (year 15): Minor adverse (not significant)	routes.
	Opportunities to 'taste' the landscape with great significance placed on local food and drink.		

Special Qualities Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works
Economy	The landscape is an important contributor to the local economy. The coast in particular is a major tourist destination and other	Construction (including decommissioning): Minor adverse (not significant) Operation and maintenance (year 1):	The enhancement of acid grassland would not directly support but would not adversely affect this indicator.
	contributors include recreation, farming and energy generation;	Negligible adverse (not significant)	
	Local visitor payback Operation and maintenance (y	Operation and maintenance (year 15): Negligible adverse (not significant)	
	"Active promotion of the Suffolk Coast as a tourist destination founded on the special qualities of the area and more specifically as part of branding associated with local products (e.g. Adnams) and the 'energy coast".		
Ecosystem goods and services	"One of the most significant ecosystems in lowland UK containing several broad	Construction (including decommissioning): Minor adverse (not significant)	The enhancement of acid grassland would contribute to the three categories of ecosystem goods and services:
	habitat types which perform a wide range of ecosystem goods and services under the three broad categories of 'provisioning', 'cultural' and 'regulating' (e.g.	Operation and maintenance (year 1): Negligible adverse (not significant)	 Provisioning services: for the duration of the enhancement, there would be potentially improved botanical diversity, reduction in invasive species presence and

Special Qualities Indicators	Summary of Suffolk & Essex Coast & Heaths AONB Indicators	Effects arising from Suffolk Onshore Scheme alone	Relevance of acid grassland enhancement works					
_	regulating climate, carbon storage, water storage,	Operation and maintenance (year 15): Negligible adverse (not significant)	improved habitat structure for wildlife;					
	flood defence, flood prevention and climate change adaptation through linked habitats)."	regigible davelee (net eigninealit)	 Cultural services: acid grassland is an important part of the AONB's landscape and contributes to its sense of place; 					
			 Regulating services: the area of acid grassland enhancement would result in a net increase of good quality acid grassland and in turn, lead to enhanced regulating ecosystem services (water quality, carbon storage, pollination, etc) 					

4. Cumulative Effects on the AONB

- The assessment of inter-project cumulative effects on the AONB is presented in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter Project Cumulative Effects [APP-060].
- The relevant other developments which were considered in the Inter Project cumulative assessment were:
 - The Sizewell C main development site;
 - East Anglia ONE & TWO Offshore Windfarms; and
 - LionLink Offshore Interconnector.
- When considering the potential cumulative effects of the Suffolk Onshore Scheme in combination with all the above developments, there is the potential for significant cumulative effects for a short and temporary period on the AONB due to the potential simultaneous or sequential construction of the projects. The concentration of construction activity associated with the landfalls and HVDC cable corridors within part of the AONB has the potential to alter the perception of the AONB with construction of major energy projects becoming a temporary characteristic feature of the landscape. These cumulative effects are unlikely to remain once all projects are operational, particularly once the cable corridors are reinstated and mitigation planting becomes established over time.
- In order to provide further clarity on the initial assessment as presented within the ES documentation, Table 4.1 and Table 4.2 below split out the cumulative assessment during construction against each of the Natural Beauty and Special Qualities Indicators. This has only been done for construction as once operational the Suffolk Onshore Scheme landfall and HVDC cable corridors would be reinstated thereby not giving rise to potential cumulative effects.

Table 4.1 Assessment of Inter-Project Cumulative Effects on Natural Beauty Indicators during Construction

Natural Beauty Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Natural Beauty Indicators	Residual Cumulative Effect at Construction
Landscape Quality	The addition of the Suffolk Onshore Scheme landfall and HVDC cable construction when combined with the construction of the other developments would result in an additional corridor of acid grassland which would be temporarily impacted within the AONB. This would extend the total area of heath and acid grassland temporarily impacted within the section of the AONB between Sizewell C and Aldeburgh in which these natural habitats contribute to the strong overall character and quality of the AONB.	Significant
Scenic quality	The transition between land and sea is identified in the AONB 2023-28 Management Plan as one of the most complex areas of the AONB. Similarly, coastal cliffs, shingle spits, estuaries and beaches are identified (LDA Design, 2016) as striking landform features contributing to the scenic quality. Due to the trenchless construction technique at this interface, this sensitive area of high scenic quality including the long distance and panoramic views across the AONB and the open landscape between Aldeburgh and Thorpeness would not be additionally affected by the construction of the Suffolk Onshore Scheme landfall. However, the construction of the landfall and HVDC cable corridor and associated traffic movement in combination with the construction of the other developments would, intensify effects for a temporary period. This would be with respect to aspects of the scenic character associated with the semi-natural landscape and the juxtaposition of heathland and farmland with the additional elements of shingle beaches and built heritage features remaining unaffected. The combined construction plant and activity would not affect the 'rhythm' of the landscape dictated by the east-west rivers and estuaries as the additional construction activity of the Suffolk Onshore Scheme would reflect the east-west pattern rather than conflict with it.	Significant

Natural Beauty Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Natural Beauty Indicators	Residual Cumulative Effect at Construction
Relative wildness	The addition of the Suffolk Onshore Scheme landfall and HVDC cable construction when combined with the construction of the other developments would locally intensify the impact on the relative wildness experienced within the section of the AONB between Sizewell C and Aldeburgh. The cumulative effect on the relative wildness experienced within the semi-natural habitats associated with the heaths and their relative sense of isolation would be intensified for a temporary period due to the cumulative construction activity. However, the estuaries, coastline and expansive views offshore which emphasise the sense of openness and exposure would not be additionally affected by the construction of the Suffolk Onshore Scheme, due to the trenchless construction in this area.	Significant
Relative tranquillity	The addition of the Suffolk Onshore Scheme landfall and HVDC cable construction when combined with the construction of the other developments would locally intensify the impact on the relative tranquillity associated with the semi natural habitats where there is a general absence of development and apparent human activity for a temporary period. The cumulative effect of construction lighting would also contribute to localised areas within the AONB where the relative dark skies would be affected for a temporary period.	Significant
Natural heritage features	The natural heritage features focussed around the geology and geomorphology contribute to a distinctive sense of place including the shingle spit at Orford Ness, river estuaries, low crumbling cliffs and steep banks of pebbles on shingle beaches. The addition of the Suffolk Onshore Scheme landfall and HVDC cable construction when combined with the construction of the other developments would only interface with the striking expanse of shingle beach to the north of Aldeburgh. As the construction across this section of the AONB would be trenchless the beach would remain intact, with this particular natural heritage feature unaffected thereby not contributing to a cumulative effect. The mosaic of designated habitats (Sandlings SSSI and SPA) would similarly not be directly affected by the additional construction activity of the Suffolk Onshore Scheme due to the trenchless construction technique. However, the wider mosaic of habitat of which the additional temporary loss of primarily acid grassland from the additional construction activity associated with the landfall compound and HVDC	Not significant

Natural Beauty Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Natural Beauty Indicators	Residual Cumulative Effect at Construction
	cable corridor would locally intensify effects on the acid grassland habitat and supporting species within the AONB, although the overall diversity of habitat would not be affected. Given that the geological and geomorphological features would not be affected and the overall diversity of habitat would not be affected by the additional construction of the Suffolk Onshore Scheme, the localised effect on one part of the wider mosaic of habitats, is considered to result in a limited cumulative effect on this specific Natural Beauty Indicator.	
Cultural heritage	The construction of the Suffolk Onshore Scheme landfall and HVDC cable corridor when combined with the construction of the other developments is not considered to affect the various aspects which contribute to the Cultural Heritage indicator including the characteristic land management practices, historic field patterns, cultural associations or the historic built environment and settlement pattern. The additional temporary loss of agricultural land and habitats would not result in a cumulative effect on this specific Natural Beauty Indicator.	Not significant

Table 4.2 Assessment of Inter-project Cumulative Effects on Special Qualities Indicators during Construction

Special Qualities Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Special Qualities Indicators	Residual Cumulative Effect at Construction
Health and well-being	As set out in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Inter-Project Cumulative Effects [APP-060], the construction of the Proposed Project is not anticipated to lead to any significant cumulative effects on health and wellbeing. This considers the cumulative effects identified for other environmental aspects of relevance to health and wellbeing, including, landscape and visual, traffic and transport, air quality, noise and vibration, and socio-	Not significant

Special Qualities Indicators

Assessment of inter-project cumulative effects on Residual Cumulative Effect at the Suffolk & Essex Coast & Heaths AONB Construction Special Qualities Indicators

economics, recreation and tourism. The assessment includes no anticipated significant adverse cumulative effects in relation to mental health due to community severance, reduced visual amenity, disturbance from noise impacts, nor to physical health outcomes such as levels of physical activity or respiratory health. This assessment includes consideration of vulnerable groups, such as children, the elderly, and individuals with pre-existing health conditions.

Specifically, this assessment does consider the significant residual cumulative effects identified within the Landscape and Visual Impact Assessment, which includes the Suffolk & Essex Coast & Heaths AONB as a receptor. Where significant residual landscape and visual amenity effects are identified, these are assessed to be short term and temporary, and are not expected to persist once all projects are operational. Overall, landscape and visual effects represent just one aspect of a broader set of environmental factors assessed within the health and wellbeing assessment, and while landscape and visual effects are an important consideration, they do not on their own indicate a significant adverse effect on health and wellbeing.

Accordingly, taking into account the balance of environmental aspects relevant to health and wellbeing, including those found to be not significant, the temporary and localised nature of construction activities, and the embedded and additional

Special Qualities Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Special Qualities Indicators	Residual Cumulative Effect at Construction
	mitigation measures proposed (including measures set out in Application Document 7.5.3.1 CEMP Appendix A Code of Construction Practice and Application Document 7.5.3.2 CEMP Appendix B Register of Environmental Actions and Commitments (REAC)), it is concluded that the cumulative effect of the Proposed Project on health and wellbeing would not be significant.	
Community	Social cohesion and community identity is assessed within Application Document 6.2.2.11 Part 2 Suffolk Chapter 11 Health [APP-058]. It is defined as the "potential adverse impacts on health and wellbeing resulting from disruption to community connectivity and potential changes to landscape and visual amenity, which could impact mental health".	Not significant
	The assessment of social cohesion and community identity considered findings from Application Document 6.2.2.7 Part 2 Suffolk Chapter 7 Traffic and Transport [APP-054], Application Document 6.2.2.10 Part 2 Chapter 10 Socio-economics, Recreation and Tourism [APP-057], and Application Document 6.2.2.1 Part 2 Suffolk Chapter 1 Landscape and Visual [APP-048]. The assessment of social cohesion and community identity effects was concluded to be not significant. In addition, Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Inter-Project Cumulative Effects [APP-060] also found that there is unlikely to	

Special Qualities Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Special Qualities Indicators	Residual Cumulative Effect at Construction
	effects in relation to mental health, social cohesion, and community identity.	
	Accordingly, the construction of the Proposed Project is not expected to adversely affect the relationship between people and place, and cumulative community effects within the AONB are considered not significant.	
Economy	As set out in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Inter-Project Cumulative Effects [APP-060], the construction of the Proposed Project is not anticipated to lead to any significant inter-project cumulative effects on open spaces and tourism assets. There is potential for cumulative effects on four PRoW as a result of the Proposed Project in combination with East Anglia ONE North (EA1N) and East Anglia TWO Offshore Windfarms (EA2) during construction (including decommissioning). However, EA1N and EA2 are only likely to have a minimal impact on these PRoWs. Additionally, PRoW closures and diversions will be co-ordinated with EA1N and EA2 Offshore Windfarms to reduce the potential for significant effects. In conclusion, the socio-economic cumulative effect of the Proposed Project on the Suffolk & Essex Coast & Heaths AONB is not significant.	
Ecosystem goods and services	The construction of the Suffolk Onshore Scheme landfall and HVDC cable corridor when combined with the construction of other developments will result	Not significant

Special Qualities Indicators	Assessment of inter-project cumulative effects on the Suffolk & Essex Coast & Heaths AONB Special Qualities Indicators	Residual Cumulative Effect at Construction
	in disturbance of land and therefore loss of stored carbon in soil and vegetation. However, this cumulative effect will be limited and will not significantly affect the landscape's delivery of regulating ecosystem services in terms of regulating climate, carbon storage, and resilience to climate change risks. Therefore, the addition of the scheme will not result in a significant cumulative effect on these ecosystem services.	

5. Conclusions and Summary

- As identified in Table 3.2 and Table 3.3 above and reported in the landscape assessment appendix (Application Document 6.3.2.1.C ES Appendix 2.1.C Landscape Designation and Landscape Character Assessment [APP-097]) and the Planning Statement (Application Document 7.1 Planning Statement [AS-057]) (paragraph 7.3.19 and 7.3.20) the effects for all the Natural Beauty indicators and the Special Qualities indicators are considered to be not significant and on that basis the Suffolk Onshore Scheme (alone) is not therefore likely to detract from the Natural Beauty and Special Qualities of the AONB.
- As reported in Application Document 6.2.2.13 Part 2 Suffolk Chapter 13 Suffolk Onshore Scheme Inter Project Cumulative Effects [APP-060] and further explained in Table 4.1 above, there is the potential for significant inter-project cumulative effects for a short and temporary period on the Natural Beauty indicators due to the potential simultaneous or sequential construction of the project with other projects. These cumulative effects are unlikely to remain once all projects are operational and the Suffolk Onshore Scheme landfall compound and HVDC cable corridors are reinstated and the mitigation planting becomes established over time. As reported in Table 4.2 above there would be no significant inter-project cumulative effects on the Special Qualities indicators at any stage of the Suffolk Onshore Scheme.
- Whilst 7.61 ha area of acid grassland would be temporarily affected during construction, this would be temporary and reinstated within a few years. The project is proposing a further 6 ha of acid grassland provided within the Order Limits for delivering enhancement to the AONB located to the south of the A1094. This area would be enhanced and managed as acid grassland prior to the loss of acid grassland east of Leiston Road as per paragraph 5.3.2 of Application Document 7.5.7.1 (B) Outline Landscape and Ecological Management Plan Suffolk [AS-059]. The overall enhancement is as follows:
 - 6 ha of acid grassland enhancement; and
 - 4.05 ha of acid grassland restored to a higher quality than its current condition.
- The proposed acid grassland enhancement within the AONB is considered to target the Natural Beauty and Special Qualities indicators of the Suffolk & Essex Coast & Heaths AONB as it has multifunctional purposes to further the purpose of the AONB, notably including landscape, ecology and Biodiversity Net Gain. This includes landscape quality, scenic quality, relative wildness, relative tranquillity, natural heritage features, community and ecosystem goods and services.
- 5.1.5 Whilst the provision of acid grassland would not directly support the cultural heritage, economy or health and wellbeing indicators, it would not adversely affect these indicators.

- The enhancement of the area of land within the AONB will contribute to aspirations within the Suffolk & Essex Coast & Heaths AONB Management Plan (National Landscape Partnership, 2023). This includes providing for nature recovery, local distinctiveness to be conserved and enhanced, and increasing biodiversity. The enhancement also links to a Suffolk & Essex Coast & Heaths AONB contribution to the Protected Landscapes Targets and Outcomes Framework for restoring or creating wildlife-rich habitats in Protected Landscapes outside of protected sites.
- Given all of the above, including the fact that there are no likely significant effects on the AONB from the Suffolk Onshore Scheme (alone), any significant inter-project cumulative effects are only likely for a short and temporary period, and there would be an overall increase in the extent and quality of acid grassland habitat within the AONB due to the enhancement proposed and secured, the Applicant considers that the s85 duty to seek to further the purposes of the AONB has been complied with.

References

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