



AONB Office
Highways Depot
Dock Lane
Melton
IP12 1PE

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By email only:

eastangliaonenorth@scottishpower.com
eastangliatwo@scottishpower.com

**Suffolk Coast & Heaths AONB Partnership response to EA2 and EA1N
Stage 4 (section 42) consultation**

The Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) Partnership thank ScottishPower Renewables for the opportunity to comment on this further phase of consultation. The AONB Partnership acknowledges the important part that renewable energy can provide in the nation's energy mix.

The AONB Partnership

The Partnership was formed in 1993, it comprises public, private and voluntary organisations who are committed to conserving and enhancing the Natural Beauty of the AONB. The Partnership's role is to oversee delivery of the AONB Management Plan. It meets at least twice a year to discuss significant issues in the AONB, and delivery of the Plan. The AONB Partnership consists of:

Suffolk County Council, Essex County Council, Babergh District Council, Suffolk Coastal District Council, Tendring District Council, Waveney District Council, Ipswich Borough Council, Country Land and Business Association, The Crown Estate, Defra, Historic England, Environment Agency, Forestry Commission, Haven Gateway Partnership, National Farmers' Union, National Trust, Natural England, Royal Society for the Protection of Birds, Suffolk Association of Local Councils, Community Action Suffolk, Suffolk Coastal Business Forum, Suffolk Coast Ltd, Suffolk Farming & Wildlife Advisory Group, Suffolk Preservation Society, Suffolk Coast Against Retreat, Suffolk Wildlife Trust.

It should be noted that:

Many of these partners are public bodies or statutory undertakers which have the duties to conserve and enhance the Natural Beauty of the AONB as set out in section 85 of the Countryside and Rights of Way Act (2000). It is anticipated that these partners, and other members of the Partnership will provide separate

consultation responses to the information provided for the stage 4 (section 42) consultation that reflect these and other interests and responsibilities.

The AONB Partnership response to stage 4 (section 42) consultation information

The AONB Partnership response directs its comments to both EA1N and EA2 consultations unless explicitly directed at one or the other of the projects.

The AONB Partnership have seen information produced by ScottishPower Renewables which relates to the development of EA1N and EA2 produced for the stage 4 (section 42) consultation.

Summary of AONB Partnership response to EA1N and EA2 (stage 4 consultation)

- The AONB Partnership acknowledge that the onshore development proposals have sought to **avoid introducing major onshore development into the nationally designated AONB**, ie the substations and overhead cables.
- However, the AONB Partnership notes the ScottishPower Renewables Landscape and Visual Impact Assessment acknowledgement that the residents of Friston, **outside the AONB, would receive significant permanent adverse impacts from the development of substations at this location.**
- The AONB Partnership **acknowledge the benefit to the AONB landscape of undergrounding** the necessary cables through the nationally designated area during the operational phase, but have concerns about impacts during the construction phase.
- However, The AONB Partnership, **have concerns about the negative impact on the features of AONB designation**, for example tranquillity, landscape quality, scenic quality, relative wildness, natural heritage features and cultural heritage during the onshore construction phase.
- The AONB Partnership **has significant concerns about the impact of the offshore developments** will have on the nationally designated landscape.
- This concern is **particularly acute relating to the character of the AONB**, its long distance and panoramic views, the introduction of human activity at an industrial scale, the reduction in features associated with tranquillity and seascape character.

The AONB Partnership consider that the proposals need to be determined against the relevant National Policy Statements and Legislation. The AONB Partnership notes that:

- A) The Overarching National Policy Statement for Energy (EN1), paragraph 5.9.9, states:

Development proposed within nationally designated landscapes [section title]

5.9.9 National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the IPC should have regard to in its decisions. The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas.

The AONB Partnership considers that to conform to **EN1 that the proposed developments should not significantly negatively impact** nationally designated landscape.

- B) The National Policy Statement for Renewable Energy Infrastructure (EN-3), paragraph 2.5.33 states:

2.5.33 In sites with nationally recognised designations (Sites of Special Scientific Interest, National Nature Reserves, National Parks, the Broads, Areas of Outstanding Natural Beauty and Registered Parks and Gardens), consent for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits.

The AONB Partnership considers that **to conform to EN3 that the proposed developments should not have significantly negatively impact nationally designated landscape**. Where there are significant adverse impacts these should be outweighed by environmental, social and economic benefits

- C) National Policy Statement for Electricity Networks Infrastructure (EN-5) states:

2.8.9 The impacts and costs of both overhead and underground options vary considerably between individual projects (both in absolute and relative terms). Therefore, each project should be assessed individually on the basis of its specific circumstances and taking account of the fact that Government has not laid down any general rule about when an overhead line should be considered unacceptable. The IPC should, however only refuse consent for overhead line proposals in favour of an underground or sub-sea line if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable. In this context it should consider:

- *the landscape in which the proposed line will be set, (in particular, the impact on residential areas, and those of natural beauty or historic importance such as National Parks, AONBs and the Broads)*

The AONB Partnership considers that **to conform to EN5 that the proposed developments should pay regard to the economic, social and environmental indicators of the AONB**. Given the proposed undergrounding of cables it is satisfied that SPR have acknowledged the AONB in respect of connections between offshore infrastructure and proposed substation subject to an appropriate scheme of works to deliver this element.

D) Section 85 of the Countryside and Rights of Way Act (2000) that states:

General duty of public bodies etc.

(1) In exercising or performing any functions in relation to, or so as to affect, land in an area of outstanding natural beauty, a relevant authority shall have regard to the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty.

(2) The following are relevant authorities for the purposes of this section—

(a) any Minister of the Crown,

(b) any public body,

*(c) **any statutory undertaker,***

(d) any person holding public office.

The AONB Partnership considers that **ScottishPower Renewables as a statutory undertaker is required to pay due regard to the purpose of the AONB** when undertaking its operations

E) The statutory Suffolk Coast & Heaths AONB Management Plan 2018-23 outlines within its 25 year vision for the area that:

Nationally Significant Infrastructure Projects such as energy production and its associated infrastructure should seek to avoid damage to the natural beauty of the AONB and where this cannot be achieved it should seek to minimise, mitigate and compensate for any residual damage.

The AONB Partnership considers that the ScottishPower Renewables proposals for development **require the proposals to meet the aims of the statutory AONB Management Plan**.

The AONB Partnership recognise three elements of each of the proposals covered by consultation:

- i) **Onshore Developments**
- ii) **Cable Routes**
- iii) **Offshore Developments**

In addition to commenting on these three elements the AONB Partnership has commissioned its own experts to review the consultation documents and this work is reproduced in appendix 1 of this response.

The three elements are considered below:

i) Onshore Developments

The AONB Partnership acknowledge that ScottishPower Renewables have recognised the nationally designated AONB in identifying a site for onshore substations that are proposed to be outside the AONB boundary.

While it is not part of the AONB Partnership's remit, the AONB Partnership recognise that the substations have the potential to cause significant harm in the area they are located.

The AONB Partnership notes that the substations and associated infrastructure are located outside the AONB but considers that ScottishPower Renewables **should avoid, mitigate and compensate for the negative impacts** on the local landscape, visual amenity, archaeology, biodiversity, heritage assets, tranquillity, traffic flows and amenity at the chosen site.

The AONB Partnership note the requirement for Construction Consolidation Sites for the purpose of access (to construction sites), storage and administrative and welfare requirements.

The AONB Partnership consider that the developer should **pay regard to the purposes of the nationally designated AONB when locating and designing** the proposed Construction Consolidation Sites.

The AONB Partnership notes that the landfall site for the cables is to be within the nationally designated AONB. It acknowledges that ScottishPower Renewables state there will be no above ground infrastructure left after construction.

The AONB Partnership consider that ScottishPower Renewables should be required to demonstrate that their proposals will **not adversely impact on the Coralline Crag or soft cliffs**, recognised features of the AONB designation.

ii) **Cable Routes**

The AONB Partnership acknowledge that the proposal to underground the necessary cables from the offshore development to the substations which during operational phases will minimise the negative impacts on the nationally designated AONB. It is the AONB partnership view that this is coherent with NPS 5 and in particular paragraph 2.8.9.

The AONB Partnership have concern about the impact on the nationally designated AONB during the construction phase of the installation of the cables. In particular it raises concern about:

- Impacts on **landscape quality** during construction and operation. The installation of underground cables will have a temporary negative impact on the AONB' landscape quality. It is further noted that infrastructure related to maintenance and inspection of the underground cables could have adverse impacts on the AONB.
- Impacts on **scenic quality** during construction. The installation will have a negative impact on large vistas and long views during construction. The characteristic stimuli of light and space will be negatively impacted during the construction phase.
- Impacts on **relative wildness** during construction. The introduction of large scale construction work including haul roads and the introduction of an obvious human influence during construction will adversely impact the AONB features.
- Impacts on **relative tranquillity** during construction. The introduction of a major construction site will negatively impact the purposes of the AONB in terms of the introduction of noise, light and presence of construction activity itself.
- Impacts on **natural heritage** during construction and operation. The proposals have the potential to negatively impact Sites of Special Scientific Interest, Special Protection Area, hedgerows and wildlife habitat.
- Impacts on **cultural heritage** during construction and operation. The proposals have the potential to negatively impact the archaeology and historic assets of the AONB and associated hinterland.
- Impacts on the **enjoyment of the AONB and tourism** industry. The construction of the cable routes has the potential to **negatively impact the ability of residents and visitors to enjoy the AONB**. The tourism business in the AONB, worth £210m and supporting 4,655 jobs, is based to a large degree on quiet informal recreation in the countryside, walking and cycling, and enjoyment of landscapes, wildlife and cultural experiences. The proposals

are likely to have a negative impact on the tourism industry during the construction period and the perception of those considering a visit to the area.

The AONB Partnership consider that for the development of underground cable routes to minimise the negative impacts on the nationally designated landscape the developer should:

- While acknowledging that EA1N and EA2 are separate projects, ScottishPower Renewables have set a precedent of **installing two cable routes at the same time** at the Bawdsey to Bramford cable route. A similar approach here would minimise the impacts on the AONB and residents.
- **Maintenance and inspection infrastructure** should be kept to a minimum and located and designed to minimise any adverse impacts on the AONB.
- **Justify why the cable routes should come through a nationally designated landscape** and not to industrial areas to the north or south of the AONB to connect to National Grid transmission infrastructure
- Systems of work should include measures to minimise the impacts on the AONB characteristics. This should include, but not be limited to, measures **to reduce the adverse impacts of light, dust, noise on the visual amenity and tranquillity of the AONB.**
- Works should **recognise the importance of archaeological and historic asset features** in the AONB and systems should take a precautionary principle to avoid damage and where damage cannot be avoided to safeguard such features.
- Works should **recognise the importance of biodiversity and wildlife habitats** in the AONB and systems should take a precautionary principle to avoid negative impacts and where these cannot be avoided, they should be minimised, mitigated or compensated for.
- ScottishPower Renewables should fully acknowledge the likely **impacts of the proposals on the enjoyment of the AONB and the economic benefits associated with that enjoyment.** Robust research in this area is required beyond an analysis of 'Trip Advisor' comments in other locations with offshore wind turbines. This needs to assess the impacts of the construction phase, operation phase and perceptions of the Suffolk Coast of those that would consider a visit. ScottishPower Renewables should seek to avoid, minimise, mitigate and compensate for any adverse impacts on the tourism industry. This could be done through support of Suffolk Coast Limited, a Destination Management Organisation.

iii) Offshore Developments

The AONB Partnership notes that ScottishPower Renewables Landscape and Visual Impact Assessments identify different impacts on the AONB, receptors such as the Suffolk Coast Path and in combination effects with each other and other proposed infrastructure.

The offshore development proposals EA1N and EA2 will have different impacts on the nationally designated AONB. The AONB Partnership response will deal separately with EA1N, EA2 and in the in combination impacts.

- **EA1N:**
The AONB Partnership notes that the concluding paragraph of the Preliminary Environmental Information Report chapter states that **EA1N will have some significant seascape, landscape and visual effects.**
- **EA2:**
The AONB Partnership also notes that the concluding paragraph of the Preliminary Environmental Information Report chapter states that **EA2 will have significant seascape, landscape and visual effects on the character of some inshore seascape and coastal edge landscape** at the local and regional scale.
- **In combination impacts:**
The AONB Partnership consider that the **in combination impacts of the proposed EA1N and EA2 offshore infrastructure** on some of the designating factors for the AONB, namely landscape quality and relative wildness, to be significant.

Furthermore, the AONB Partnership consider the **in combination impacts of EA1N and EA2 with existing and proposed major infrastructure** associated with the Suffolk Coast have not been adequately assessed.

The AONB Partnership note that the Landscape and Visual Impact Assessment has assessed the impact of the proposals from agreed viewpoints. However, it notes the development of the England Coast Path and would wish to see a further assessment of the development proposals based on those experiencing the AONB using the enhanced access entitlement.

The AONB Partnership are disappointed to note that the findings of the Landscape and Visual Impact Assessment, in respect of the impacts on the AONB, **are not clearly identified in the non-technical summary documents** that it considers will form the basis of many people's knowledge of the proposed schemes.

The AONB Partnership considers that the in combination impacts of the proposals with existing developments such as Sizewell A, Sizewell B, the proposed Sizewell C, the proposed interconnectors (Nautilus and EuroLink) and wind energy infrastructure of Galloper and Gabbard **have not been fully acknowledged or assessed**.

The AONB Partnership consider that the impacts on the AONB designation factors such as landscape quality, scenic quality, relative wildness and relative tranquillity **are significantly impacted in respect of the EA2 and are not coherent with the purposes of the AONB**.

The AONB Partnership consider that the impacts on the AONB designation factors such as landscape quality, scenic quality, relative wildness and relative tranquillity are significantly impacted in respect of **the in combination impacts of EA1N, EA2 and existing and proposed energy production infrastructure on the Suffolk Coast and are not coherent with the purposes of the AONB**.

The AONB Partnership consider the need for an **assessment of the impacts of users of the proposed England Coast Path**. It acknowledges that it could not represent the experience from every step on the proposed England Coast Path but an assessment of the unbroken impacts for those using the route.

The AONB Partnership welcome the development of renewable energy but note that the proposals for the EA1N and EA2 developments have the potential to significantly impact on the natural beauty of the AONB and the experience of those visiting it.

The AONB Partnership consider that the proposals should be revised to remove significant adverse impacts on the nationally designated AONB.

Yours sincerely,



Simon Amstutz
AONB Manager, Suffolk Coast & Heaths AONB
simon.amstutz@suffolk.gov.uk
07971 909649

Appendix 1

AONB Consultant review of consultation documents

East Anglian Two and East Anglian One North Comments on Stage 4 PEI Documentation

1 Introduction

1.1 Appointment

- 1.1.1 Alison Farmer Associates (AFA) was appointed by the Suffolk Coast & Heaths Area of Outstanding Natural Beauty (AONB) to undertake a review of the East Anglian Two (EA2) and East Anglian One North (EA1N) Seascape, Landscape and Visual Impact Assessment (SLVIA) documents in the context of the AONB designation.
- 1.1.2 These schemes are put forward by ScottishPower Renewables (SPR) as part of a Stage 4 (section 42) consultation, prior to formal submission of a Development Consent Order. Both schemes (EA1N and EA2), are located offshore from the Suffolk Coast & Heaths AONB.

1.2 Scope of work

- 1.2.1 This work focuses on the seascape, landscape and visual effects of the offshore components of the schemes on the AONB landscape. Therefore, effects on landscape beyond the AONB designation and on shore components of the schemes, are not considered as part of this report.
- 1.2.2 This review has concentrated on the effects of EA2 which is closer to the AONB and has a greater lateral spread along the coast. However, the methodology and approach adopted is the same for both schemes. Whilst specific document cross references in this report relate to EA2, the issues and concerns identified are also applicable to EA1N. The review of EA1N in this report focuses on the overall effects of the scheme in isolation and cumulative effects in association with EA2.
- 1.2.3 EA2 documents which have been reviewed include:
- Chapter 28 of the Preliminary Environmental Information (PEI)
 - Offshore Seascape, Landscape and Visual Amenity Figures 28.06 – 28.53
 - Landscape and Visual Impact Figures 29.01-29.38
 - Appendix 28.1 SLVIA Methodology
 - Appendix 28.2 Seascape Assessment
 - Appendix 28.3 Landscape Assessment
 - Appendix 28.4 Visual Assessment
 - Appendix 28.5 Suffolk Coast Path Assessment
 - Appendix 28.6 Cumulative Seascape, Landscape and Visual Assessment
 - Appendix 28.7 Offshore Windfarm Visibility

1.2.4 EA1N documents which have been reviewed include:

- Chapter 28 of the Preliminary Environmental Information (PEI)
- Offshore Seascape, Landscape and Visual Amenity Figures 28.06 – 28.53
- Appendix 28.1 SLVIA Methodology
- Appendix 28.2 Seascape Assessment
- Appendix 28.3 Landscape Assessment
- Appendix 28.4 Visual Assessment
- Appendix 28.5 Suffolk Coast Path Assessment
- Appendix 28.6 Cumulative Seascape, Landscape and Visual Assessment
- Appendix 28.7 Offshore Windfarm Visibility

1.3 Approach

1.3.1 The review has been desk based only, although familiarity of the study area from previous work in the area has informed the review. Where specific aspects of the scheme are not mentioned in this report it should not be taken as acceptance of what is proposed or assessed.

1.3.2 The structure of the report is as follows:

- Section 2 considers relevant background context
- Section 3 considers the baseline assessment and methodology
- Section 4 reviews the assessment of landscape effects
- Section 5 reviews visual effects (including the Suffolk Coast Path)
- Section 6 considers the effects on the AONB Special Qualities
- Section 7 considers additional issues relating to EA1N and Cumulative effects
- Section 8 provides a summary of effects of the proposed schemes on the AONB

2 Context

2.1 Policy Context

2.1.1 AONBs are nationally valued landscapes designated for their Natural Beauty. The purpose of AONB designation is to 'Conserve and Enhance Natural Beauty' (National Parks and Access to the Countryside Act 1949) and Countryside and Rights of Way Act (2000).

2.1.2 The overarching National Policy Statement EN1 para 5.9.9 requires that:

'National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the IPC should have regard to in its decisions. The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas'.

2.1.3 National Policy Statement on Renewable Energy (EN3) in para 2.5.33 reinforces this and states that:

'...consent for renewable energy projects should only be granted where it can be demonstrated that the objectives of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by the environmental, social and economic benefits'.

2.2 Proposed Developments

2.2.1 The East Anglian Two off shore windfarm comprises 60 wind turbines, 300m high to blade tip. The closest turbine is located c. 31.5km from the Suffolk Coast & Heaths AONB and the windfarm extends c.30km in lateral spread along the coast. The turbines would be lit at night.

2.2.2 The East Anglian One North off shore windfarm comprises 65 turbines, 300m high to blade tip. The closest turbine is located c. 37.5km from the Suffolk Coast & Heaths AONB and the windfarm extends c. 14km in lateral spread along the coast. The turbines would be lit at night.

3 Baseline and Methodology

3.1 General

- 3.1.1 The methodology used to assess the effects of EA2 and EA1N is set out in Appendix 28.1 for each scheme. References to paragraph numbers in this chapter refer to this appendix for EA2 unless otherwise stated.
- 3.1.2 In general terms the methodology adopted for the assessment of seascape, landscape and visual effects generally accords with best practice and published guidance. The assessment is detailed and thorough. However, a number of concerns have been identified which are set out below.

3.2 Mapping and Presentation of Data

- 3.2.1 It is noted that none of the drawings show the entire AONB. A plan showing the full extent of the AONB would help to highlight the extent to which the AONB is a coastal AONB, the extent to which it lies within 50km of the proposed developments and its narrowness.
- 3.2.2 Given the importance of the Suffolk Coast & Heaths AONB, the boundary of the designation should be shown on landscape character, Zone of Theoretical Visibility (ZTV), including cumulative ZTVs, and viewpoint maps to enable the reader to identify those landscape areas and viewpoints, which are relevant to the AONB.
- 3.2.3 Whilst it is recognised that viewpoints have been selected through consultation with key parties, there are a number of Landscape Character Types (LCTs) where landscape effects are identified but no representative viewpoint is provided. Viewpoints for example from North Warren (LCT 7d) or from river flood defence embankments adjacent to the River Ore (LCT 6e) would be informative.
- 3.2.4 Figure 28.17 illustrates the landscape character types and their local subdivision. However not all the local areas are clearly marked on this plan (e.g. 7c and 6e are missing) making cross reference with the assessment tables for landscape impacts difficult. Furthermore LCT 8 is marked as a, b, c on the plan but referred to as 1, 2 and 3 in the report.
- 3.2.5 Figure 28.25 for EA2 is a useful drawing as it summaries the significant effects of the scheme on the coastal landscapes. However LCT 7a is considered to experience significant effects, of which Easton Bavents is a part, and yet this latter area is not shaded in on this plan. Furthermore, the colours used are misleading as the significant effects on seascape are shown as a yellow hatch not pink/red, the yellow hatch being similar in colour to the AONB designation.
- 3.2.6 On the ZTV drawings the categories for number of turbines visible is not the same for EA1N and EA2 making comparison between each scheme more difficult
- 3.2.7 The figures showing cumulative effects of EA1N and EA2 should show the turbine layouts of both schemes.

3.3 Baseline

- 3.3.1 The definition of a 50km radius study area, beyond which significant effects are not considered to occur, is acceptable. However it should be noted that beyond 50km effects may still be experienced.
- 3.3.2 Within this study area the baseline assessment takes account of existing windfarm development off the Suffolk Coast. The location of the other windfarm development is illustrated on drawing 28.9 and existing heights of turbines presented in Table A28.1. Of particular note is that all existing off shore windfarm development in the study area, comprises turbines which are near half the size or less, of the proposed turbines. This is important as wind turbines of different height give rise to very different effects, even if located at the same distance off the coast. Greater Gabbard turbines are 170m high and Galloper 180.5m high to blade tip and therefore considerably smaller than that which is proposed for EA2 and EA1N.
- 3.3.3 Para 139 of Chapter 28 for EA2 states that existing windfarms in the coastal waters off Suffolk establishes a precedent for this type of development in this location. Whilst windfarms exist, it does not follow that the coastal waters have further capacity. The current distribution of windfarm development to the north and south of the study area, infact illustrates the sensitivity of the coast between Kessingland and Felixstowe which is designated as AONB and Heritage Coast and nationally valued.

3.4 Approached Used in Assessing Landscape and Visual Effects

- 3.4.1 Para 16 of Appendix 28.1 (methodology) makes no reference to the Suffolk County Landscape Character Assessment although this is the assessment used to determine landscape and AONB effects.
- 3.4.2 Para 32 of Appendix 28.1 sets out considerations in assessing susceptibility i.e. the ability of a defined landscape receptor to accommodate the specific proposed development without undue negative consequences¹. The assessment makes particular reference to the specific nature of development, seascape/landscape character and association. A number of observations can be made:
- Where the specific nature of the development helps in understanding susceptibility, all aspects should be considered rather than drawing attention to one element of a scheme i.e. distance from the coast.
 - Where the influence of existing development influences susceptibility it should not be based on the simple presence or absence of development but the nature and influence of that development on character.
 - When considering association, especially association between coastal landscape and the sea, visibility of open water is not be necessary for a strong association to still exist.
- 3.4.3 The definition of categories of 'magnitude of change' appear inconsistent. Para 15 of the methodology assessment indicates the use of 6 categories in assessing the magnitude of change and yet table A28.3 has only 4 (not including 'none'). No

¹ GLIVIA page 158

definition is provided for the intermediate scales Medium-High or Low-Medium for landscape effects although they are provided in relation to magnitude of change for visual effects, table A28.7, page 24.

- 3.4.4 Page 13 of Appendix 28.1 sets out a series of bullets to assist with determining the size/scale of change. The third bullet makes reference to the presence of existing windfarm development which is considered to reduce the magnitude of change, if there is a level of integration, and developments form a unified and cohesive feature. However this is unlikely to occur in the context of large scale off shore windfarms which cover a significant area of the horizon, and especially so, along a designated coastline valued for its relationship with the open sea and unfettered skylines. In these circumstances existing windfarm development may already impinge on coastal character and special qualities. When combined with the proposed development, the increased spread and prevalence of this form of development can give rise to a high magnitude of change to key characteristics and special qualities.

3.5 Approach Used in Assessing Visual Effects

- 3.5.1 The visualisations prepared to support the assessment appear to follow best practice and assist in the assessment of effects.
- 3.5.2 Attention is given to Met Office data regarding visibility but no attention is given to visibility at different times of day. This is important as the turbines are likely to be most visually prominent in views in the evenings when the sun is in the west behind the viewer and the turbines are front lit with a darkening sky.
- 3.5.3 The sensitivity of views appears to have been underestimated. Table A28.6 sets out that views within a designated landscape have a higher sensitivity. The views along the coast are known to be of high scenic quality reflected in the AONB designation and users of the foreshore are engaged in enjoyment of the natural environment and sea views. On this basis viewpoints from the foreshore for users of the natural environment would be expected to be high yet in many instances they are categorised as Medium-High e.g. Viewpoints 6, 7, and 18.

3.6 AONB Special Qualities

- 3.6.1 Appendix 28.1 makes no specific reference to the methodology employed to determine effects on the special qualities of the AONB. Instead the approach adopted is set out in Appendix 28.3 page 29-31. The approach adopted utilises the Natural Beauty indicators set out in the report *'Suffolk Coast & Heaths AONB Natural Beauty and Special Qualities Indicators report (V1.8, Nov 2016)*. The special indicators set out in section 3 of this report were not used as they were considered *'somewhat intangible'*. This is considered acceptable as the indicators set out in section 3 do not accord with the definition of special qualities provided by Natural England in their guidance on assessing landscapes for designation².
- 3.6.2 Reliance is also placed on the assessment of landscape effects to inform impacts on special qualities (page 31 para 13 of Appendix 28.1). It is noted in para 14 that the

² Guidance on Assessing Landscapes for Designation as National Park or Area of Outstanding Natural Beauty, Natural England, 2011.

different categories of magnitude of change again comprises four not six as highlighted in para 3.4.3 above.

- 3.6.3 Throughout the documentation the AONB is referred to as having few commanding viewpoints. This is considered misleading as the coastline has many extensive open and exhilarating long views up and down the coast as well as out to sea despite its low elevation.

3.7 Cumulative Effects

- 3.7.1 Cumulative effects between EA2 and EA1 have been assessed but cumulative effects with Sizewell C are only considered in relation to onshore development not offshore. The section of coast between Aldeburgh and Southwold will experience both the on shore development of Sizewell C and the offshore development of the proposed windfarms. Whilst Sizewell C is not strictly the same type of development it is nonetheless an energy development which effects the same coastline. The lack of assessment of the combined effects of Sizewell C and the offshore windfarms is a notable omission especially in the context of effects on the AONB landscape.

4 Landscape Effects

- 4.1.1 The landscape effects of the proposed development are set out in detail in Appendix 28.3.

4.2 Landscape Character

- 4.2.1 The Suffolk Landscape Character Assessment has been used to determine landscape effects. It should be noted however that the landscape types within the AONB form relatively narrow bands of landscape. The perceptual characteristics of these landscapes is therefore, in part, determined by what goes on adjacent to them. It is the inter-relationship between the landscape types and with the sea and sky which gives rise to the character of these areas and special qualities of the AONB.
- 4.2.2 Four coastal landscape types were identified as likely to experience significant landscape effects as a result of EA2 namely LCT 5 Coastal Dunes and Ridges; LCT6 Coastal Levels; LCT 7 Estate Sandlands and LCT 8 Open Coastal Fen.
- 4.2.3 Each landscape type was assessed in terms of value and susceptibility giving an overall sensitivity rating. Then each landscape type was divided into discrete areas reflecting their specific geographical location on the coast and magnitude of change was assessed for each. The assessment concluded significant adverse effects for the Coastal Dunes and Shingle Ridges 5c and 5d, and Estate Sandlands 7a only.

4.3 Landscape Value

- 4.3.1 There are concerns regarding the assessment of the value of the four key landscape types where they occur within the AONB. All four landscape types comprise notable areas of the AONB coast. As such these areas, where they fall within the AONB should have a high value as a result of the designation, their scenic quality and perceptual/experiential aspects as defined in Appendix 28.1 pages 9-10.

4.4 Susceptibility

- 4.4.1 There are concerns regarding the assessment of susceptibility of the landscape types particularly where they occur within the AONB. These are set out below:
- Page 12 of Appendix 28.3 describes susceptibility of landscape type 5 Coastal Dunes and Shingle Ridges and makes reference to the distance of the proposed development from the coast to imply susceptibility is tempered. This is misleading for two reasons – firstly the nature of offshore windfarm development is to introduce vertical elements within the seascape, therefore reference should also be made to height of turbines and lateral spread. To refer to distance alone downplays the susceptibility of the landscape to this type

of development and runs the risk of double counting elements of the proposals which are taken in account during an assessment of magnitude of change.

- LCT 5 is considered to have a high susceptibility due to its direct association with the open sea which forms a setting to the landscape and on account of the high exposure of this type to the proposed development.
- LCT6 is considered to have a medium susceptibility due to the openness of this landscape, its strong association with the sea and the simple, unfettered skylines and open horizons. This landscape is not considered to be visually contained and is susceptible to vertical structures breaking the skyline, even where there are no direct views of the sea. Furthermore, there are parts of this landscape which contain raised flood defences along river channels from which there are elevated views out to sea and along the coast.
- It is agreed that LCT 7 has a medium susceptibility at the coast. This landscape forms an important backdrop to low lying coastal areas and has views out to sea across these areas. As a result, this landscape has an association with the coast, and strong aesthetic qualities making it susceptible to the proposed development.

4.5 Sensitivity, Magnitude and Significance

4.5.1 As a result of an underestimation of value and susceptibility, judgements in relation to landscape sensitivity have also been underestimated.

4.5.2 A comparison of the effects set out in the SLVIA and anticipated effects highlighted in red are provided below. It can be seen that significant effects are likely to be felt on the coastal LCTs within the AONB.

Landscape Type	Sensitivity	Magnitude	Significance	Comments
LCT 5 Coastal Dunes and Shingle Ridges	Medium - High	Medium Med-Low	Significant	It is agreed that significant effects will be experienced by LCT 5C and 5D. However, it is considered that significant effects would also be felt from LCT 5E. Whilst this later landscape is located at a great distance from the proposed development it is also currently affected by existing windfarm development at Greater Gabbard and Galloper. Additional windfarm development of the scale proposed would result in loss of the open unfettered skyline such that, when on the
	High	Medium-High	Significant	

Landscape Type	Sensitivity	Magnitude	Significance	Comments
				foreshore, the windfarm development would be a prevailing influence and would undermine the characteristics of this landscape which are heavily dependent on the uncluttered seascape.
LCT 6 Coastal Levels	Medium	Medium	Not significant	Significant effects arise as a result of the medium-high sensitivity and medium magnitude of change from the addition of a substantial number of new vertical elements which would be readily apparent breaking the simple unfettered skyline over a considerable distance.
	Medium-High	Medium	Significant	
LCT 7 Estate Sandlands	Medium at coast	Medium at coast	7a Significant Other areas not significant	It is agreed the effects of the proposed development on 7a would be significant. However significant effects are also likely in 7c and 7d. This is because parts of this landscape within the AONB have elevated views out to sea across coastal lowland landscapes.
	High	Medium-High	Significant	
LCT 08 Coastal Fens	Medium	Low	Not Significant	This assessment relates to area 8a only. Similarly, to LCT 6, the proposed development is likely to intrude into this open and expansive landscape by appearing on the open, natural landscape and horizontal skyline, despite parts of this landscape not having views of the open sea.
	Medium-High	Medium	Significant	

5 Visual Effects (Inc Suffolk Coast Path)

5.1.1 The visual effects of the proposed development are set out in Appendix 28.4.

5.2 Viewpoints and Visualisations

5.2.1 The viewpoints have been considered as part of this desk-based review. Documents printed at the correct scale were borrowed from Suffolk County Council for this purpose. The ZTVs provide useful information on the likely extent of visual impact noting that they do not take account of vegetation and built form. Importantly, the Suffolk Coast & Heaths AONB coastal landscapes are predominately undeveloped and, due to exposure at the coast, are sparsely vegetated. Therefore, along the coastal margins of the AONB the landscape are frequently open and expansive. Here the ZTV is considered to paint a relatively accurate picture of visual effects.

5.2.2 It is agreed that almost all of the viewpoints within the AONB are likely to experience significant adverse effects as a result the proposed windfarm. However in a number of places the susceptibility and thus sensitivity of visual receptors is considered to have been underestimated. Where visual receptors are engaged in the natural environment (as many are when visiting the AONB), and where views are focused on the coastline and out to sea, (as many are when visiting the coastal parts of the AONB), sensitivity is regarded as high.

5.2.3 On this basis, there are concerns regarding the assessment of a number of viewpoints such as Viewpoint 10 and 14. The sensitivity of Viewpoint 10 is assessed as medium to low on account of the influence of Sizewell A and B. However, directional views for most people visiting the area are out to sea and along the coast, where scenic quality is high, despite the presence of Sizewell. This is a popular viewpoint with facilities, where walkers and tourist come to enjoy the coastal landscape. The sensitivity of visual receptors is considered to be high and effects significant. Similarly for Viewpoint 14 the sensitivity of the visual receptor is considered to be high on account of the historic promoted viewpoint, and importance of the view in understanding and enjoying a key cultural heritage asset of the AONB. With the magnitude of change being medium-low the effects are also considered to be significant.

5.3 Suffolk Coast Path

5.3.1 The SLVIA included a detailed assessment of the effects on the Suffolk Coast Path. Para 208 of Chapter 28 highlights that the repeated exposure to the proposed windfarm can lead to significant effects. The same must equally apply to the wider AONB.

5.3.2 The England Coast Path is being development for this section of coast by Natural England and will adopt the Suffolk Coast Path for some of its length but in places provide new sections which focus more specifically on the coast and on enjoyment of sea views. This means that in future the effects of the proposed development on coastal paths is likely to be greater than has been assessed.

6 AONB Special Qualities

- 6.1.1 The assessment of effect on the Special Qualities of the AONB are set out in Appendix 28.3 pages 29-38 and also within Chapter 28 on pages 63-67. The assessment considers effects on special qualities in relation to landscape types. As noted in paragraph 4.2.1 above the use of landscape types can result in the interrelationship between different landscapes and with the sea and sky, which give rise to many of the special qualities, being underestimated.
- 6.1.2 Natural Beauty Indicators are taken from the Natural Beauty and Special Qualities report (V1.8, Nov 2016) and reiterated and have not been develop further in relation to specific sections of the coast.
- 6.1.3 There appears to be no assessment of the effects of the proposed windfarm on cultural heritage interest, including cultural associations. This is an important oversight as cultural heritage forms a key component of the AONB comprising many historic sites along the coast. Frequently historic sites and assets comprise singular vertical structures which contrast with the otherwise strongly linear and horizontal landscape e.g. Orford Ness or Southwold Lighthouses, Orford Castle or Martello towers. These historic assets, many of which are listed, depend upon the open sea to give them significance and meaning.
- 6.1.4 Similarly, no reference is made to cultural associations including works of art, that like heritage assets, may depend on the seascape setting for their context and aesthetic qualities e.g. The Clam.
- 6.1.5 Para 115 of Chapter 28 notes that a particularly distinctive feature of the AONB is the coast. It is the coast that, in part, gives the AONB its name. Changes to the coastal perceptions of the AONB are therefore fundamental to understand. The assessment of effects on special qualities in Appendix 28.3 correctly highlights the effects of the proposed development and these are summarised below:
- Introduction of large-scale element which would change the uncluttered characteristics of the seascape – the windfarm would increase visual clutter/complexity
 - Partial loss of open sea skyline in long distance and panoramic views out to sea and along the Heritage Coast.
 - Introduction of new wind turbine layer altering the vastness of the seaward aspect by curtailing the limitless aspect out to sea
 - Modern turbines would contrast with naturalness of coastal landscapes
 - Increase in the evidence of apparent human activity changing perceptions of wilderness
 - Introduction of visual movement and night time lighting affecting tranquillity

- 6.1.6 Para 151 of EA2 Chapter 28 sets out that the inshore waters would be significantly affected by the proposed development and that this open water forms a setting to the AONB (para 150).
- 6.1.7 The assessment of impacts on AONB effects concludes that the Natural Beauty factors of landscape quality and scenic quality only, would be adversely affected. However, based on the effects noted above it is likely the proposed development would not conserve nor enhance the special qualities of wildness, tranquillity, natural heritage or cultural heritage interest.

7 East Anglian One North and Cumulative Effects

7.1 EA1N

- 7.1.1 The SLVIA for EA1N scoped out significant effects on coastal landscapes south of Southwold. In assessing LCT 05, 06 and 07 north of Southwold it concluded there would be no significant effects. Similarly no significant effects were identified on the special qualities of the AONB as a whole.
- 7.1.2 In terms of visual effects, the magnitude of change on Viewpoint 3 Covehithe (within the AONB) appears to have been underestimated. Here views are from an area of unspoilt coastline which strong natural characteristics. The turbines would be visible on the skyline and would not be missed. Although distant and relatively small they would add a new element to the horizon and would appear uneven and in places bunched. The magnitude of change is considered to be medium-Low and combined with a high sensitivity, would give rise to a significant effect.
- 7.1.3 In the case of landscape effects LCT 07 north of Southwold is also considered to experience a significant effect. Here the sensitivity of the landscape 07a Estate Sandlands has been assessed as high but the magnitude of effect underestimated. Given the natural characteristics of the coastal landscape within the AONB and open, unfettered sea horizon which is inextricably linked to the coastal character, the magnitude of change is considered to be medium-Low. This would also give rise to a significant effect. These effects are considered to occur along the AONB coastline north of Southwold for approximately 10km.
- 7.1.4 Similarly, the effects on the AONB would be significant north of Southwold affecting in particular landscape quality, scenic quality, relative wildness and tranquillity. Effects would also be felt to the South of Southwold along the coast, although to a lesser extent.

7.2 Cumulative Effects

- 7.2.1 The East Anglian One North combined with the EA2 Off Shore windfarm would comprise 125 wind turbines, 300m high to blade tip. The combination of both schemes would introduce a lateral spread of c.44km of off shore windfarm along the SC&H AONB coastline.
- 7.2.2 The SLVIA for EA1N concluded that, in combination with the EA2 scheme, there would be additional cumulative adverse effects. However, the SLVIA for EA2 concluded that, in combination with EA1N, there would be effects of no greater significance. This latter conclusion does not mean the introduction of EA1N with EA2 would result in no increased adverse effects. On the contrary, the visualisations show the increased lateral spread of the introduction of a further 65 turbines and the intensification of the 'curtain' effect of the turbines on skyline views from the AONB. Therefore, whilst the overall effects would remain significant, the effects would indeed be greater.

8 Summary of Effects on AONB

8.1 Key Effects

- 8.1.1 The Suffolk Coast & Heaths AONB is a nationally important coastal landscape. It extends c. 50km along the Suffolk coast between Kessingland and Felixstowe and varies in width being just c.1.5km at its narrowness. The SLVIA illustrates that up to c. 40km of the AONB, where it abuts the open sea, will be significantly adversely affected by EA2 individually and in association with EA1N. It is likely that EA1N on its own will also significantly affect c.10km of the northern part of the AONB coastline.
- 8.1.2 The SLVIAs have underestimated the effects of the proposed development on the landscapes which sit immediately behind the Sand Dunes and Shingle Ridges landscape type. In these landscape the sea may not be visible but the turbines are still likely to break the strong, open, horizontal skyline. Furthermore, parts of the Estate Sandlands LCT form a backdrop to lower lying coastal marshes and shingle beach affording more elevated views out to sea over these lower landscapes.
- 8.1.3 The conclusion in EA2 Chapter 28 para 161 that only LCTs 05 and 07 are affected is questioned. Whilst types 06 and 08 may not be visually connected to the sea the presence of the sea and coastal location of these landscape remains perceptible not least because of the sense of openness beyond the type. In places the turbines will break the skyline, their vertical form in a horizontal landscape, and their movement, will intrude on these landscapes. The visual intrusion of turbines into these landscape, as indicated on the ZTV, has been underestimated. Therefore, a more substantial part of the coastal stretches of the AONB is likely to be adversely affected by the proposed windfarm development.
- 8.1.4 Para 162 of EA2 Chapter 28 missed the inextricable link between the land and sea which is fundamental to the special qualities and enjoyment of the AONB. The open, unfettered sea views, their expansive and natural qualities are highly susceptible to the introduction of vertical structures which will stretch for c. 30km. The proposed development may be sited some distance from the coast but the degree of impact is also dependant on the height of the structures and the value placed on the open, wild and natural characteristics of the sea and the extent to which this gives rise to special qualities along the coast.
- 8.1.5 There is an unreasonable reliance on the existence of existing windfarm development along the coast in the assessment of effects. The reality is that Great Gabbard and Galloper windfarms, although located at similar distances to EA2, are in fact significantly smaller in height. Furthermore their smaller extent ensures they affect a more limited area of the AONB. In contrast the EA2 and EA1N windfarms will affect c. 40km of the SC&H AONB which is only 50km in length in its entirety. The effects of EA2 or EA2 and EA1N in combination will give rise to a pervading presence of windfarms as perceived from the AONB.
- 8.1.6 The SLVIA considers at para 152 of Chapter 28 that the effect of EA2 would not give rise to a windfarm seascape but that it would comprise a seascape with windfarm. However this cannot be an acceptable circumstance where a national landscape

designation lies adjacent and especially a landscape dependent on the inter-relationship with the sea for its special qualities.

- 8.1.7 The 'curtaining' effect of the proposed windfarm development cannot be assessed simply by the extent of the horizon affected by windfarm development from a specific viewpoint. It must also take account the extent of the coast which has sequential views of the proposed development such that it would not be possible to get away from this type of development when experiencing the vast majority of the AONB coastal landscapes.
- 8.1.8 Wind turbines are not a special quality of the Suffolk Coast & Heaths AONB nor a key characteristic, and the proposed development would not further the purpose of designation. On the contrary, the proposed developments, either individually or cumulatively, would undermine the special qualities and perceptions which are a fundamental component of this nationally valued landscape.