



## **The Planning Act 2008**

**East Anglia One North (EA1N) and East Anglia Two (EA2) Offshore Wind Farms**

**Planning Inspectorate Reference: EA1N – EN010077 & EA2 – EN010078**

**Deadline 5 - 3 February 2021**

**East Suffolk Council's Summary of Oral Case - Issue Specific Hearing 4**

**Issue Specific Hearing 4 (19 & 20 January 2021) – Onshore Environment, construction, transport and operational effects**

Examining Authority's Question	East Suffolk Council's Summary of Oral Case
<b>Agenda Item 1 – Welcome, introductions and arrangements for these Issue Specific Hearings 4</b>	
<b>Agenda Item 2 – Energy White Paper: Powering our net zero future</b>	
<p>a) Review of issues arising b) Responses</p>	<p>ESC considers The Energy White Paper is an important and relevant consideration. The document confirms that a review of the national policy statements will be undertaken and commitments to updating them during 2021. The White Paper is however also clear that until such time as a new national policy statement is published the existing documents remain in force.</p> <p>On page 80 the Energy White Paper sets out in summary, the approach of the Government and other relevant bodies to the coordination and consolidation of offshore transmission infrastructure.</p> <p><i>“The review will seek the appropriate balance between environmental, social and economic costs. It will also consider the potential of hybrid, multi-purpose interconnectors, which are already being explored by developers in the UK and the Netherlands, to get the most from our offshore wind and transmission assets. These hybrid projects could integrate the transmission links we need to connect offshore wind to our grid with interconnectors to neighbouring markets.”</i></p> <p>The paper goes on to state that <i>“In order to start delivering these benefits, we will encourage projects already in development, where early opportunities for coordination exist, to consider becoming pathfinder projects.”</i> The term ‘in development’ is however not defined but it is clear that these would encompass projects before consent and therefore the current projects would appear to fall within this category.</p>

		<p>ESC would encourage and welcome any additional coordination which can be achieved between the two projects which would help to minimise their cumulative impacts as well as to ensure that there is sufficient flexibility to respond to policy change or technological advances. Such flexibility could be built into the Substations Design Principles Statement (REP4-029) with the addition of a new design principle. ESC would support the wording which SCC has submitted at Deadline 5 to address this matter.</p>
<p><b>Agenda Item 3 – Landfall and Coastal Processes</b></p>		
<ul style="list-style-type: none"> <li>a) The Applicant’s D1 Outline Landfall Construction Method Statement [REP1-153]</li> <li>b) Proposed method(s) of installation</li> <li>c) Coastal change and the integrity of the cliffs</li> <li>d) The potential impact on the Coraline crag outcrop and Leiston-Aldeburgh SSSI</li> <li>e) Potential exposure of structures and remediation</li> </ul>		<p><b>Landfall and Coastal Processes</b></p> <ul style="list-style-type: none"> <li>a) ESC is are satisfied with the Outline Landfall Construction Method Statement (OLCMS REP1-042), subject to the comments below, noting that it includes a requirement for further site investigation and design by the Applicants (on cable duct line, breakout location and cliff vibration damage risk management), the output of which is to be submitted to ESC for review and approval in accordance with Requirement 13.</li> </ul> <p>ESC would have preferred for the documents submitted by the Applicants for scrutiny as part of the examination process to have included final works design and specification proposals. However, ESC understands that this is not a requirement of the process. That being the case, ESC has included protective provisions in the OLCMS requiring the Applicants to submit the outstanding site investigation, design and method information for approval by ESC before work commences.</p> <ul style="list-style-type: none"> <li>b) ESC understands that Horizontal Directional Drilling (HDD) is proposed by the Applicants. The Applicants have confirmed their commitment to this technique within their response</li> </ul>

to ISH1, CAH1 and ISH2 Hearing Actions Points (REP3-083). This is preferred by ESC to open cut excavation and therefore this commitment is welcomed. It is also understood that the use of this technology will be secured within an amendment to the wording of Requirement 13.

ESC believes that installation of ducts at the coastal landfall site by use of HDD, is preferable to open cut excavation because the latter would cause far greater temporary and permanent disturbance to the coastal environment in the landfall zone. It is recognised that a drilling operation presents a potential risk to the land through which it is installed from vibration and escape of bentonite fluid. ESC is satisfied that obligations requiring the Applicants to identify and propose measures to manage those risks to an acceptable level are in place in the OLCMS.

- c) ESC is satisfied with the findings of the Applicants' studies to assess potential coastal change over the operational life of the landfall site, that includes a significant risk allowance, which will be used to set the transition bay locations.

The Applicants employed consultant RHDHV to prepare a study on coastal change to inform the siting and design of the landfall. RHDHV prepared the Suffolk Shoreline Management Plan between 2007 and 2010 and were also involved in studies associated with the Thorpeness coastal defence scheme between 2010 and 2012. RHDHV are therefore familiar with this section of coastline in general and, of key importance, coastal processes at Thorpe Ness. The original report was updated at the request of ESC after a significant increase in the rates of cliff erosion over the southern part of the potential landfall frontage. The study included consultation with the Environment Agency. ESC is satisfied that the study findings are robust and provide a sound evidence base for the Applicants to base their cable landing design proposal.

d) ESC’s objective to avoid a significant negative impact on the Coraline Crag is known to and shared by the Applicants (Section 1.3, OLCMS, REP1-042). The outstanding site investigation and design actions by the Applicants described in item a) above are required to demonstrate compliance by the Applicants with this objective.

The crag outcrop at the Ness is critical to the relative stability of this part of the Suffolk coast. It is believed to provide an anchor to the southern end of the Sizewell Bay that extends north to the river Blyth estuary at Southwold. Its presence is believed to modify water flows and sediment movements which nourish the sandbanks located over the Sizewell to Dunwich frontage. Those sandbanks provide protection to the shoreline behind. The Ness is also believed to provide stability to the Thorpeness village frontage, under long term average conditions. The exposed crag surface is therefore considered to be of significant beneficial value to stability of the shoreline and for this reason ESC has opposed any activity that may lead to significant damage or loss, including cable landing route options that pass to the north of the Ness.

Research also suggests that particular weather conditions acting on the Ness can cause persistent erosion pressure to affect the northern part of the Thorpeness village frontage. This locally erosive condition appears to have been active over recent years leading to untypically high beach variability and rates of cliff erosion. There is concern within the local community that the Applicants landing will pass below this eroding cliff and accelerate its retreat and also that the transition bay will be at risk from the potentially higher than anticipated erosion rates.

ESC’s understanding of the Applicants proposals is that the transition bays will be located landward of a cliff zone closer to a part of the Ness where historically there has tended to be greater stability, north of those parts that have experienced recent high erosion rates. ESC also understands that the HDD line will run in a ~ South East direction from the

transition bays, and not directly offshore, and so may pass under an actively eroding cliff. This HDD line is necessary to achieve a beach break out location that avoids the exposed crag. These assumptions will not be confirmed until receipt of the final design information.

ESC believes that the beach break-out point and cable installation running seaward from it will not result in a significant negative impact on either Thorpeness or shorelines to the south.

From an ecology perspective ESC agree that HDD is the construction technique that needs to be used for the landfall and that it should be ensured that HDD is undertaken in such a way that it does not impact on the cliff. There should also be no vehicle movements on the beach due to the sensitive shingle flora habitats that are present (which is recognised in the OLCMS, paragraph 15 and 54 – REP1-042).

- e) ESC requires the Applicants to provide a final 'for-construction' Landfall Construction Method Statement (LCMS) to demonstrate how the breakout location and profile of the duct installation will be resilient to coastal change over the operational life of the landfall site. This to include evidence of consideration of construction tolerances in horizontal and vertical planes. Requirement 13 secures the final LCMS and ensures that the document is in accordance with the OLCMS.

ESC considers that the Applicants should set up a monitoring programme to compare actual shoreline change trends with as-built records to ensure that design assumptions on resilience are not compromised. If monitoring suggests there is a risk of duct or exposure of breakout connection point damage then ESC considers that the Applicants should submit proposals for remediation to the planning authority, and all other relevant approval bodies, at least 12 months in advance (if possible) of action being needed.

		<p>Monitoring could be secured by an update to the OLCMS to ensure that a monitoring provision is set out in the final LCMS and secured by Requirement 13, along the lines of Requirement 37. ESC recommends that the Applicants use data currently collected, and made publicly available, under the Anglia Coastal Monitoring Programme (ACMP) to undertake these reviews. Only if the ACMP is stopped or modified would the Applicants be required to undertake their own surveys. Annual surveys (with a report of findings to ESC) are recommended for at least 3 years following installation with a review at end of year 3 to consider a reduction in frequency.</p> <p>ESC is currently discussing this matter with the Applicants.</p>
<p><b>Agenda Item 4 – Onshore Construction and Operational effects</b></p>		
<ul style="list-style-type: none"> <li>a) Air Quality</li> <li>b) Noise</li> <li>c) Light</li> <li>d) Flood Risk and drainage             <ul style="list-style-type: none"> <li>i. Surface water flooding in Friston</li> <li>ii. The Applicant’s D3 Outline Operational Drainage Management Plan [REP3-046]</li> <li>iii. Existing conditions</li> <li>iv. Sustainable drainage principles</li> <li>v. Surface water drainage</li> <li>vi. Foul water drainage</li> </ul> </li> </ul>		<p><b>a) Air Quality</b></p> <p>ESC has been able to work with the Applicants to produce an extensive and detailed draft Statement of Common Ground (Section 2.5 REP1-072). As a result of this, ESC now has only a relatively small number of outstanding concerns regarding the proposed developments. These are as follows:</p> <ol style="list-style-type: none"> <li>1. ESC remains concerned about the potential for impacts on air quality in the Stratford St Andrew Air Quality Management Area (AQMA) (pages 7-9, REP4-059). These relate to the risk of in-combination impacts in the event that Sizewell C goes ahead. To mitigate the risk of adverse impacts in this area, ESC requests one of two options, option (a) being the preference:</li> </ol>

- a) Commitment to a minimum of 70% EURO VI standard construction vehicles with the balance EURO V. The figure of 70% is provisional, pending consideration of further information to be provided in relation to Sizewell C.
- b) Commitment to funding a monitoring programme in the AQMA with a management group set up to agree appropriate mitigation, if measured air pollution levels are found to exceed the air quality standards. ESC understands that the Applicants are willing to discuss funding of air quality monitoring with a view to identifying an appropriate sum but have concerns regarding committing to a process of review and further mitigation if air quality impacts are identified in the AQMA.

The Applicants and ESC are continuing discussions in relation to the management of impacts in the Stratford St Andrew AQMA and we are hopeful an agreement can be reached.

2. ESC is concerned about the potential for air quality impacts at designated habitat sites due to Non-Road Mobile Machinery (NRMM). The Applicants' Air Quality Deadline 3 Clarification Note (REP3-061 pages 20, 25, 26, 28, 31) demonstrates that there is a risk of significant contributions to air pollution levels at designated habitat sites with Stage IV non-road mobile machinery being utilised. This occurs in an area where HDD is essential. The Applicants' Deadline 3 Onshore Ecology Clarification Note (REP3-060 page 8 sections 32 and 33) concludes that these impacts are not significant. ESC is concerned that this conclusion is not sufficiently robust. Similar concerns have been raised by Natural England (Appendix C6 to NE's Deadline 4 Submission, paragraphs 7-12, REP4-092).

ESC supports the approach being taken by Natural England to seek further detail in order to enable a robust assessment to be carried out. In the event that this process does not satisfactorily address ESC's concerns, ESC requests that a commitment should be added for NRMM used for HDD to

comply with Stage V standards. This can be specified in the OCoCP (REP3-022) Section 10.1.6 and then final CoCP.

In order to ensure that the findings of the Deadline 3 Air Quality Clarification Note (REP3-061) are robust, the following controls should be applied:

- a) NRMM should as a minimum comply with Stage IV emissions standards. This can be specified in the Outline Code of Construction Practice (REP3-022) Section 10.1.6.
- b) Apart from the landfall areas (Construction Work Areas No 6, 7 and 8 shown in REP3-006 Works Plans (onshore)), open cut trenching should be used in preference to HDD, from the perspective of minimising the risk of air quality impacts. This applies specifically to the Sandlings SPA Crossing (Construction Work Areas No 11, 12 and 13 3). This supports the views on open cut trenching versus HDD previously expressed by ESC (e.g. LIR REP1-132, ESC SoCG with Applicants LA02.32 REP1-072, ESC’s Summary of Oral Case from ISH1 and ISH, page 10 REP3-094)).

The Applicants commented during the hearing that impacts due to emissions from NRMM are not expected to be significant. ESC agrees that, under most circumstances, emissions from NRMM would not be significant. However, for the current applications, a large number of NRMM plant are proposed to be located close to sensitive locations, including habitat sites that are sensitive to air pollution. The results of the assessment carried out by the Applicants and described in the Applicants’ “Air Quality Deadline 3 Clarification Note” (REP3-061) confirms ESC’s view that the impacts due to emissions from NRMM could be significant, and further attention should be paid to assessment and mitigation of these potential impacts.

**b) Noise**

### Operational Noise

1. ESC welcomes the downward direction of revised operational noise limits committed to by the Applicants during the hearing and within their Deadline 4 Project Updated Note (REP4-026) and Noise Modelling Clarification Note (REP4-043).
2. ESC however still considers the revised operational noise limits (31/32 dB  $L_{Ar}$ ) would have a significant adverse impact on the surrounding receptors as illustrated in Figures 1 and 2 of ESC Deadline 4 responses on noise (Appendix 2, page 36, REP4-059). These figures are based on the graphs in Appendix 3 of the Applicants' Response to Appendix 4 of the LIR ref (REP3-071).
3. Noise from the proposed industrial sources at this level would permanently alter the existing rural sound climate in the area and the proposed operation limits would also set a precedent for future wind farm connections to the national grid substation, as discussed in 6.48 to 6.54 of the Local Impact Report (REP1-132). This would lead to further and substantial noise creep in the area over time were further substation connections permitted.
4. The proposed operation noise limits were set at Paragraph 121 of Chapter 25 of the Environmental Statement (ES) (APP-073) at the background sound level +5dB on the basis that the Applicants consider this to be the Lowest Observed Adverse Effect Level – LOAEL. This is not agreed by ESC. Section 11 of BS4142 states that a rating level of around 5 dB over the background sound level "is likely to be an indication of an adverse impact, depending on context". The Council maintains that a rating level equal to the background sound level is a more appropriate figure for the LOAEL threshold, as discussed in Section 19.22 of the Local Impact Report (REP1-132).

5. The operational noise limits were set according to the lowest “representative” background sound level reported for the assessment positions in Chapter 25 of the ES (APP-073) of 29 dB  $L_{A_{f90}}$ . However, as discussed in Appendix 4 of the Local Impact Report (REP1-132), these figures are subject to flawed analysis and reporting errors. Section 4.3 of the Applicants response to this document submitted at Deadline 3 (REP3-071) states in relations to SSR3 that “The Applicants accept this background noise level was misreported within chapter 25 of the ES (APP-073) and agree that a mean background sound level of 26.1 dB  $L_{A_{f90,5mins}}$  is appropriate at SSR3.” However, the Applicants fail to acknowledge that this figure will be adversely affected by the noise floor of the sound level meter used and that the mean of the true background sound levels during the survey will be lower than this figure. The modal measured sound level of 24 dB  $L_{A_{f90}}$  is largely unaffected by the same measurement errors and is therefore a fundamentally more reliable figure for the representative background sound level at this location.
6. ESC welcomes the commitment from the Applicants to include a new monitoring location to the north of the site at SSR3, as discussed during SoCG meetings and highlighted in ESC’s SoCG with the Applicants (REP1-072) and set out in the Local Impact Report (REP1-132). We look forward to seeing this amendment in the draft DCOs submitted at Deadline 5.
7. ESC maintains that the proposed National Grid substation is intrinsic to the overall development and should therefore be included in the cumulative operational noise limits set out in Requirement 27, as identified in ESC’s SoCG with the Applicants (REP1-072).
8. ESC therefore requests:
  - Clarification as to whether 31/32dB is the lowest achievable sound level or whether this limit has been specified based on impacts?

- Lower operation noise limits to minimise permanent changes to the existing sound climate, to avoid a significant adverse impact from noise, and to control future noise creep. The proposed Operational noise limit (Requirements 26 and 27) should be set equal to the background sound level rather than the background sound level +5dB. This is a compromise which will not prevent noise creep, a noise limit well below the background sound level would be required for this. The background sound level used to set the operational noise limits (Requirements 26 and 27) should be changed from 29 dB  $L_{A90}$  to 24 dB  $L_{A90}$ .
- Noise from operation of the National Grid substation site should be included in noise limits set in Requirement 27.

The Applicants have supplied details of the analysis used to conclude that the rating level should not be subject to penalty for tonality. ESC does not accept this analysis and maintain that the rating level of operational noise should be subject to acoustic feature corrections in accordance with BS4142. ESC however notes that requirements 26 and 27 refer to a rating level and therefore will need to include any penalty corrections to be applied.

#### **Construction Noise**

ESC welcomes the additional information that was provided by the Applicants in the updated Outline Code of Construction Practice (OCoCP) (REP3-022). ESC requested some additional commitments within the Local Impact Report (REP1-132) which have on the whole been addressed.

- *Commitment to identify specific areas sensitive to noise and/or vibration within the onshore development area and provide appropriate mitigation (REP3-022, paragraph 83).*

- *Commitment that noise monitoring locations will be agreed with ESC (REP3-022, paragraph 88).*

ESC also requested in the LIR (REP1-132)

- *Commitment that prior to any out of hours work taking place, the timing and duration of the work will be agreed with ESC.*

ESC considers that there is potential for significant adverse noise effects due to construction works occurring outside consented onshore working hours. Part (2) of Requirements 23 and 24 sets out the activities which, subject to advanced approval from ESC, can occur outside the working hours set out in Requirement 23(1) and 24(1). The wording is however not sufficiently precise on what activities are considered 'essential', 23(2) and 24(2) identify some activities considered 'essential' works a) to e) but the wording states that the definition is not limited to those works. This would imply any works could be considered essential which is not acceptable.

In addition to this, the Council is concerned that the wording of 23(2)(b) is too vague and could incorporate many activities some of which could cause noise disturbance. It is also not clear why it is necessary to undertake these works outside the specified working hours. It is therefore considered this activity should be removed from the requirements.

ESC considers that in addition to seeking agreement from the Council in relation to the duration and timing of the works, the Applicants should also be required to seek agreement from ESC as to whether the works are 'essential' and therefore can take place out of hours, with the exception of the works identified on the face of the DCOs. As indicated above however, ESC considers that (2)(b) should be removed from both requirements.

The draft DCOs as indicated above and 'Construction in Proximity to Properties' document (REP3-058) provided at Deadline 3 refers to the "essential activities" which may also occur outside consented hours, as discussed above. The OCoCP is currently silent in relation to the matter of essential activities and refers only to emergency works. It is considered that the OCoCP should be updated to include reference to these works to ensure consistency.

ESC considers that construction noise monitoring could play an important role in ensuring that adverse effects are adequately controlled, particularly during works occurring outside consented hours. The OCoCP states that the locations for any such monitoring that is required would be agreed in advance with ESC. It will be important that the wording of the final CoCP makes it clear that ESC should have the final say on whether construction noise monitoring is required, and that this should form part of the approval process described.

**c) Light – this agenda item was deferred for written comments.**

*Construction Lighting*

Requirement 22 which secures the CoCP includes an artificial light emissions plan for the construction phase. The OCoCP (REP3-022) provides the Council with sufficient confidence that the lighting in the final plan will be designed to minimise nuisance and impact on residential and ecological receptors. The final CoCP including artificial light emissions plan will be agreed with the ESC at the discharge of requirements stage.

*Operational Lighting*

ESC is satisfied that Requirement 25 secures the provision of an Operational Artificial Light Emissions Management Plan which will include measures to minimise lighting pollution and the hours of lighting for both the EA1N and EA2 onshore substations and the National Grid substation.

The Environmental Statements highlight that operational lighting will be required around the perimeter fence and car park and these could potentially be motion sensitive. No additional lighting is proposed along the access road or Grove Road.

The Operational Artificial Light Emissions Management Plan is required to be approved by ESC. Although limited information has currently been provided, the Council will ensure that the lighting is appropriate designed to minimise its impact post consent through the discharge of requirements process.

**d) Flood Risk and Drainage**

ESC will defer to SCC on the matter of surface water flood risk and drainage.

In terms of foul drainage, the Applicants have not yet determined how their foul drainage will be disposed of at this stage either for construction or operation. Requirement 22 secures the CoCP which will include a Surface Water and Drainage Management Plan detailing foul waste during construction. An OCoCP has been provided confirming that the management plan will provide full details of foul water drainage during construction.

Requirement 41 secures the submission of an Operational Drainage Management Plan which will contain details of foul drainage during operation. The Outline Drainage Management Plan has confirmed that the final plan will provide full details of how foul drainage will be managed from the substations during operation.

<ul style="list-style-type: none"> <li>a) Regional issues and effects including ports and AIL</li> <li>b) Local issues and effects – construction and operation</li> <li>c) Cumulative effects</li> </ul>		<p>ESC will defer to SCC as the local highway authority on this matter.</p>
<p><b>Agenda Item 6 – Public Rights of Way (PRoW) - SCC</b></p>		
<ul style="list-style-type: none"> <li>a) Construction effects on the PRoW network                             <ul style="list-style-type: none"> <li>i. Effects on users</li> <li>ii. Effects on the network</li> </ul> </li> <li>b) Effects on the PRoW network in the operational period                             <ul style="list-style-type: none"> <li>i. Effects on users</li> <li>ii. Effects on the network</li> </ul> </li> </ul>		<p>ESC will defer to SCC as the local highway authority on this matter.</p>
<p><b>Agenda Item 7 – Any other business relevant to the Agenda</b></p>		
<p>The ExAs may raise any other topics bearing on onshore environment, construction, transport and operational effects as is expedient, having regard to the readiness of the persons present to address such matters.</p>		

<p>The ExAs may extend an opportunity for participants to raise matters relevant to the topic of these hearings that they consider should be examined by the ExAs. If necessary, the Applicants will be provided with a right of reply.</p>		
<p><b>Agenda Item 8 - Procedural Decisions, Review of Actions and Next Steps</b></p>		
<p>The ExAs will review whether there is any need for procedural decisions about additional information or any other matter arising from Agenda items 2 to 7. To the extent that matters arise that are not addressed in any procedural decisions, the ExAs will address how any actions placed on the Applicants, Interested Parties or Other Persons are to be met and consider the approaches to be taken in further hearings, in the light of issues raised in these hearings. A written</p>		

action list will be published if required.		
<b>Agenda Item 9 – Closure of hearings</b>		