



# **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 8 – 25 March 2021** 

East Suffolk Council's Summary of Oral Case - Issue Specific Hearing 12

# Issue Specific Hearing 12 (11 March 2021) – Noise

Examining Authority's Question		East Suffolk Council's Summary of Oral Case	References	
Agenda Item 1 – Welcome, introductions and arrangements for these Issue Specific Hearings 12				
Agenda Item 2 – Noise from construction works				
a) At the transmission connection location –		a) <u>Transmission Connection Location – Friston</u>		
Friston				
a. Local background		a. Local Background		
b. Specific construction processes				
c. Individual receptors		The Council retains some concerns regarding the length of the	Local Impact	
d. Mitigation measures and security		ambient noise measurements which formed the basis for the	Report - REP1-	
		assessment criteria, as set out in the Local Impact Report	132	
		(paragraph 19.10, REP1-132). However, the Council also accepts		
		that this is unlikely to have affected the construction noise		
		criteria that were adopted and are satisfied that these limits can		
		be enforced appropriately through the final Code of Construction		
		Practice (CoCP) and the section 61 of Control of Pollution Act		
		1974 (COPA) consent process.		
		1 6 16		
		b. Specific construction processes		
		The Council's concerns are relatively broad and not necessarily		
		The Council's concerns are relatively broad and not necessarily		
		related to a specific construction phase, sub-phase, or process.		
		However, it is relevant within this part of the agenda to discuss		
		ESC's position in relation to the technical methodology.		
		During pre-application engagement and detailed in the Local	Outline Code of	
		Impact Report (paragraph 19.14, REP1-132), the Council raised	Construction	
		impact report (paragraph 15.14, Ref 1 152), the council raised	Construction	

concerns regarding proposals for Saturday afternoon construction activity. This has been satisfactorily addressed in Section 3.1 of the OCoCP (REP7-026) which states that construction activity on Saturdays would be restricted to 0700-1300hrs.

Practice - REP7-026

Working hours are be controlled by Requirements 23 and 24 of Draft DCO – the draft Development Consent Orders (DCOs) which confirm that Saturday construction will take place between 0700-1300hrs, except for essential and/or emergency grid connection construction works. Part 3 of Requirement 22 states that the timing and duration of any such works must be approved by ESC in advance, with the exception of emergency works.

REP7-007

The Council stated in the Local Impact Report (REP1-132, paragraph 19.6) that wherever there was a requirement for night-time or extended working hours, that this would need to be agreed in advance with ESC through a process to be included in the CoCP. Such a process has been outlined in the OCoCP and secured by Requirements 23 and 24 which is welcomed.

> ESC Response to ExA's Commentary on the draft DCOs -REP6-080 ESC ISH15 Oral Summary of

ESC has however provided some comments regarding the wording contained within Requirements 23 and 24, most recently in writing at Deadline 6 (REP6-080) but also orally at Issue Specific Hearing 15 (ISH15). Two points were raised, the first in relation to the broad interpretation of Requirement 23 and 24 2(b), which has now been addressed by an amendment in the draft DCOs (REP7-007) to state that 2(b) only relates to internal fitting out works. The second concern ESC has raised relates to the open list of essential activities provided within the requirements. ESC

considers that the Applicants should be required to seek agreement from ESC as to whether "essential activities" outside categories (a) to (d) are essential, through the approval process in (3) in addition to the duration and timing of the works.

Case (reference unknown)

ESC has been engaging with the Applicants on this matter and agreed wording to reflect this request. Subject to the inclusion of this wording within the draft DCOs, the Council is content with the wording of Requirements 23 and 24.

#### c. Individual receptors

The Council considers that there are specific locations where residential properties are in close proximity to the Order Limits and therefore will be close to the construction works and activities (paragraph 19.5, Local Impact Report, REP1-132). ESC had requested that special consideration was given to these locations within the OCoCP.

The Applicants have sought to address this by including a commitment in the OCoCP (paragraph 95, REP7-026) that the final CoCP and Construction Phase Noise and Vibration Management Plan will consider the sensitivities of residences within the vicinity of the onshore development area and that this will be submitted to ESC for approval before works progress. The Council is satisfied that Requirement 22 of the draft DCO (REP7-006) will secure these provisions.

d. Mitigation measures and security

ESC considers there remain some unresolved areas of uncertainty in relation to the noise prediction methodology (paragraph 19.10, Local Impact Report, REP1-132). However, the Council also acknowledge that there is inherent uncertainty in the prediction of construction noise, and the ESC is ultimately satisfied that construction noise impacts can be appropriately controlled provided noise mitigation and management measures are suitably robust.

Section 9.1 of the OCoCP (REP7-026) sets out proposed measures for controlling construction noise and vibration.

Within the OCoCP (REP7-026), the Applicants indicate the intention (in paragraph 94) to apply for consent under Section 61 of the COPA prior to commencement of onshore works. The Section 61 application "will include works details and proposed noise mitigation measures". The Applicants state in the same paragraph that this is a proactive approach and represents industry best practice. The Council broadly agrees with this and are satisfied that Section 61 provides a defined process through which satisfactory mitigation and management measures for construction noise and vibration can be secured.

The OCoCP (REP7-026) also states that a Construction Phase Noise and Vibration Management Plan will also be submitted to ESC for approval prior to the commencement of each stage of onshore works, which will set out specific measures for construction noise mitigation and will also consider the sensitivity of individual properties in the area. The Council is satisfied that this, in combination with the Section 61 application, should

provide sufficient opportunity to ensure that appropriate mitigation measures will be in place.

The OCoCP (paragraphs 96 and 97, REP7-026) also set out the standards and Acts of Parliament which will be adhered to, and generic best practice mitigation measures which will be implemented and controlled through the Construction Phase Noise and Vibration Management Plan. The Council is satisfied that these commitments represent a robust basis for considering and controlling potential construction noise and vibration impacts.

In addition to the project-wide onshore mitigation measures proposed, Section 9.1.3 of the OCoCP (REP7-026) also sets out specific measures "anticipated to be implemented" at the onshore substation location. This includes one specific proposal for mitigating noise from construction of the substations, and a commitment to consider additional practicable measures at a later stage. The Council welcomes the efforts to address specific concerns relating to particularly sensitive receptors and are satisfied that the final CoCP will provide an opportunity to ensure the final proposals are suitably robust.

In addition to the measures secured by the outline CoCP, ESC welcomes the provision of an Onshore Preparation Works Management Plan which is to be secured by Requirement 26 of the draft DCOs (REP7-007). The outline details of the plan are provided in Appendix 1 of the OCoCP (REP7-026) and address a key concern previously raised by the Council in relation to how the onshore preparation works would be controlled.

ESC also considers that, "in addition to monitoring required to ensure that works are compliant with the relevant standards that extra monitoring will be required in particularly sensitive locations to inform the requirement for localised, site specific mitigation", as stated in the Local Impact Report (paragraph 19.13, REP1-132).

Section 9.2. of the OCoCP (REP7-026) presents the initial proposals for noise and/or vibration monitoring during construction. The Applicants have stated (paragraph 110, REP7-026) that a decision as to whether construction noise monitoring is required will be deferred to ESC, and that the locations for such monitoring would then be agreed with ESC in advance. This will be part of the submission and approval process for the final CoCP and the Council is satisfied that this will provide the opportunity to ensure adequate monitoring.

In addition, a further point was raised by SASES during the hearing suggesting that Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) values be adopted for the control of construction noise. SASES suggested that the values adopted for the HS2 scheme are generally suitable. ESC agreed with the principles of using LOAEL and SOAEL to define impacts and the use of adopting different values for different time periods depending on sensitivity. Table 5 of the Expert Report on Noise (REP7-041) sets out working times, averaging periods, LOAELs and SOAELs, all derived from HS2, and there was agreement that the general principles of this

Expert Report on Noise - REP7-041

b) Cable corridors and haul roads

- a. Local background
- Specific construction processes (including trenching, trenchless techniques, use of haul roads)
- c. Individual receptors
- d. Mitigation measures and security

be incorporated into the OCoCP. This resulted in an action to find appropriate means of incorporating the table into the OCoCP.

Although ESC agreed with the incorporation of the general principles as set out above, the Council does not support the specific values having any status. The Applicants and ESC have discussed this matter post-hearing and the Applicants have agreed to provide Table 5 in a separate section relating to policy and confirmed their commitment to minimise construction noise impacts in accordance with BS5228, as already defined within the OCoCP (REP7-026). ESC is now satisfied with the means of inclusion of Table 5 within the OCoCP.

## b) Cable Corridors and Haul Roads

a. Local background

The local background in relation to this specific aspect of the construction is the same as for the transmission connection location and ESC therefore has no additional comments on this.

b. Specific construction processes

The Council's position on construction processes and the technical assessment methodology for this specific aspect of the construction are the same as for the transmission connection location and therefore has no additional comments on this.

c. Individual receptors

In relation to individual receptor locations, as set out in the Local Impact Report (paragraph 19.5, REP1-132), the Council considers that there are specific locations within the Order Limits where residential properties are relatively close to some parts of the cable routes and therefore construction activities. Specifically, paragraph 19.12 of the Local Impact Report (REP1-132), notes that "there are certain points along the cable route that are extremely close to the construction works" and that "there may need to be an enhanced level of mitigation employed to protect residents adequately".

The Applicants have sought to address this by including a commitment in the OCoCP (paragraph 95, REP7-026) that the final CoCP will consider the sensitivities of residences in the vicinity off the onshore development area, and that this will be submitted to ESC for approval before works progress. The Applicants have also provided a plan in Figure 1 setting out the key sensitive areas which corresponds to the areas identified by ESC in the Local Impact Report (paragraph 19.34, REP1-132) The Council is satisfied that Requirement 22 of the draft DCOs will secure this.

## d. Mitigation measures and security

The Council's position on mitigation measures and security relating to this specific aspect of the construction is the largely the same as for the transmission connection location, with the caveat that specific concerns exist regarding mitigation along the cabling route.

proposed, Section 9.1.2 of the OCoCP (REP7-026) also sets out specific measures "anticipated to be implemented" at specific locations and considering the sensitivities of specific properties relating to the cabling route, including commitments around working hours, the use of noise barriers, speed limits for construction traffic, plus an overarching commitment to review construction noise predictions during the detailed design of the onshore cable route and introduce additional practicable measures accordingly.

However, in addition to the project-wide mitigation measures

The Council welcomes the efforts to address specific concerns relating to particularly sensitive receptors and construction locations and are satisfied that the final CoCP will provide an opportunity to ensure the final proposals are suitably robust.

The Council also welcomes the Applicants commitment through the introduction of Requirement 26 and within the OCoCP (REP7-026) to provide an Onshore Preparation Works Management Plan to provide controls for the onshore preparation works which can be undertaken pre-commencement.

## c) Landfall

a. Local background

The local background in relation to this specific aspect of the construction is the same as for the substation, cable corridors and haul roads and therefore ESC has no additional comments on this.

## c) Landfall

- a. Local background
- b. Individual receptors
- c. Mitigation measures and security

## b. Specific construction processes

The Council's position on construction processes and the technical assessment methodology for this specific aspect of the construction are the same as for the substation, cable corridors and haul roads and therefore ESC has no additional comments on this.

## c. Individual receptors

In relation to individual receptor locations as identified within the Local Impact Report (paragraph 19.5, REP1-132), the Council considers that there are specific locations within the Order Limits where residential properties are relatively close to the proposed landfall location and therefore construction activities.

The Applicants have sought to address this by including a commitment in the OCoCP (paragraph 95, REP7-026) that the final CoCP will consider the sensitivities of residences in proximity, and that this will be submitted to ESC for approval before works progress. The Council is satisfied that Requirement 22 of the draft DCOs will secure this.

## d. Mitigation measures and security

The Council's position on mitigation measures and security relating to this specific aspect of the construction is the largely the same as for the substation, cable corridors and haul roads. However, in addition to the project-wide mitigation measures proposed, Section 9.1.1 of the OCoCP (REP7-026) also sets out

specific measures "anticipated to be implemented" at specific locations and considering the sensitivities of specific properties relating to landfall, including commitments around working hours, the use of noise barriers, positioning of construction plant and equipment, plus an overarching commitment to review construction noise predictions during the detailed design of the landfall works and explore additional practicable measures accordingly. The Council welcomes the efforts made by the Applicants to address specific concerns relating to particularly sensitive receptors and construction locations and are satisfied that the final CoCP will provide an opportunity to ensure the final d) The highway network/traffic noise proposals are suitably robust. d) The Highway Network/Traffic Noise The ExAs will invite submissions from IPs who wish to raise matters in relation to this item. ESC has no specific comments to make regarding this matter. The Applicants will be provided with a right of reply. Agenda Item 3 - Operational noise a) At the transmission connection location a) At the Transmission Connection Location - Friston Friston a. Local background a. Local background b. Operational processes ESC maintains that the Friston area is typical of a very quiet rural c. Individual receptors environment and that the introduction of a new industrial noise

d. Mitigation measures and security

b) Other operational noise effects

The ExAs will invite submissions from IPs who wish to raise matters in relation to this item. The Applicants will be provided with a right of reply.

source at the levels currently proposed, above the background sound levels would represent a permanent change to the character of the noise climate in the area.

The Applicants have assessed the impact of the substations using with British Standard BS4142 as agreed in consultation with ESC prior to submission. BS4142 compares an A-weighted noise rating level from the proposed source, modified according to a list of specific acoustic features, against a representative background sound level.

The single figure background sound levels presented by the Applicants are not agreed by ESC as being representative of the typical night-time sound climate around Friston. Based on the Council's analysis of the Applicants' own survey data, ESC considers the background sound levels should be revised down to 27 dB LAF90 at SSR2, 24 dB LAF90 at SSR3 and 29 dB LAF90 at SSR5 or the lowest of these values (24 dB LAF90). This analysis is detailed in Appendix 4 of the Local Impact Report (REP1-132) and based solely on the noise survey data supplied by the Applicants. This was not based on the short-term validation measurements taken during the Council's night-time visit to site. The position on background sound levels is not affected by any comments raised in the Applicants' Deadline 7 submissions (REP7-041, REP7-057) which will be addressed in separate representations.

As requested by the Examining Authority, ESC and the Applicants have been discussing operational noise and the areas of disagreement following the hearing. Although the Council and the Applicants remain in disagreement in relation to the

Appendix 4 of the Local Impact Report - REP1-132

background sound levels, notwithstanding this position, the Applicants have confirmed the operational noise limits currently proposed within Requirement 27 of the draft DCOs have been set at the lowest level currently achievable. The Applicants have also committed to providing an Operational Noise Control Plan prior to the construction of the substations which will be agreed with ESC and secured by updates to Requirements 12 and 27. This plan will provide details in relation to the operational noise at the detailed design stage and commits to adopting Best Practicable Means to reduce the noise levels further at this stage providing mitigation measures do not add unreasonable costs, delays to the projects or result in adverse environmental impacts. Based on this new information and commitments, ESC now accepts the rating noise limits provided at this stage within Requirement 27, notwithstanding the disagreement with the Applicants on the background sound levels.

## b. Operational processes

ESC has expressed concern with the Applicants' predicted operational noise rating levels, particularly with regards to the absence of any correction for tonality of other characteristic features.

The Applicants have supplied a copy of the East Anglia One operational noise assessment which states that the sound emissions from transformers and reactors at substations typically contain most of their acoustic energy at 100 Hz. This statement agrees with ESC's position that the substation equipment at Friston is likely to generate significant levels of tonal noise at

Sections 19.20 & 19.21 of Local Impact Report - REP1-132

ESC D5 comments on Noise Modelling Clarification Noise – REP5-048 source. However, the Applicants have not supplied any of the 1/3 Octave band data measured around the substation site which would be required to test for tonality at source or otherwise substantiate the position that no feature correction for tonality is required. There is precedent in assessments for other similar onshore substation projects to include a feature correction for tonality where information on the proposed equipment is not yet available.

ESC has continued to engage with the Applicants after ISH12 as requested by the Examining Authority. The Applicants have now committed to providing a pre-commencement Operational Noise Control Plan based on the detailed substation design which will include 1/3 Octave band analysis of the final design proposals. This report will require approval from ESC and therefore the Council is now satisfied that the concerns associated with the lack of considerations of tonality can be adequately considered at the designed design stage.

## c. Individual receptors

The choice of receptors was agreed with ESC early in the consultation process. The impact of the predicted noise levels is assessed at individual receptors against a LOAEL of the background sound level plus 5 dB. The Council maintains that in this context, a rating level equal to the background sound level is a more appropriate figure for the LOAEL threshold. There is also precedent for this approach on other similar assessments, such as that for Vattenfall Thanet Extension.

Table 25.19 in Chapter 25 of the ES – APP-073

Vattenfall Thanet Extension Environmental Statement Chapter 10 Noise ESC agrees with Mr Cobbings' that BS 4142:2014+A1:2019 states that "Where background sound levels and rating levels are low, absolute levels might be as, or more, relevant than the margin by which the rating level exceeds the background" (REP7-041). However, ESC disagrees with Mr Cobbings' use of the thresholds from the 1997 version of the standard which was superseded in 2014 and the figures removed. This is discussed in more detail in ESC Deadline 8 responses to Mr Cobbings report.

and Vibration, Table 10.10

EA1N & EA2
Expert Report on
Noise – REP7041

Following the hearing ESC has continued to engage with the Applicants. Although the disagreement remains in relation to the LOAEL and SOAEL thresholds, ESC however agrees that the operational noise limit falls into the region between the LOAEL and SOAEL thresholds, where the Noise Policy Statement for England (NPSE) requires that "all reasonable steps should be taken to mitigate and minimise adverse effects" and Overarching National Policy Statement for Energy (EN-1) provides similar wording in paragraph 5.11.9.

The Applicants confirmation that the operational noise limits have been set at the lowest level currently achievable and their commitment to provide a pre-construction Operational Noise Control Plan approved by ESC with a commitment to use Best Practicable Means to reduce the noise limits further at the detailed design stage is welcomed. Based on these commitments, notwithstanding the disagreement with the Applicants in relation to the methodology used to determine LOAEL, ESC now accept that the operational noise limits secured by Requirement 27 are at this stage, consistent with policy.

The Council also welcomes the recent introduction of the additional monitoring location within Requirement 27 of the draft DCOs.

#### d. Mitigation measures and security

ESC maintains disagreement with the Applicants in relation to the methodology used to assess the impact of the proposed onshore substations and advised the Examining Authority that a lower limit should be imposed, unless there is confirmation that this is not achievable or commercially viable at this stage. At the time of the hearing ESC had not received confirmation that the proposed rating levels cannot be further lowered.

ESC welcomed during the hearing the inclusion in Requirement 27 for a post-completion assessment of operational noise levels including use of the methodology in Annex D of BS4142 for assessing tonality. However, given the limited options for post installation mitigation at source or at residential receptors, ESC considered that the DCO should also secure a precommencement assessment based on the detailed design of the substation. There is precedent for this in the DCO for East Anglia One (Requirement 24).

ESC advised this would require the Applicants to submit an assessment to be agreed by ESC based on the finalised detailed design of the substation to demonstrate that the operational noise limits, including any rating level corrections for tonality, are expected to be met. ESC advised during the hearing that if the

Norfolk Vanguard DCO Requirement 27

Applicants were not able to commit to a pre-commencement Norfolk Boreas condition of the type secured in Requirement 24 for East Anglia draft DCO, One, the concerns regarding low-frequency noise from the requirement 27 substations could be controlled via a parallel low-frequency operational noise limit as imposed at Necton in Norfolk for the Norfolk Boreas and Vanguard onshore substations. Following the hearing, the Applicants and ESC have continued to engage as previously discussed. The Applicants commitment to provide a pre-construction Operational Noise Control Plan which will provide 1/3 octave spectrum information is considered to have addressed the Council's concerns and therefore ESC is no longer seeking the inclusion of a low frequency criterion. b) Other Operational Noise Effects ESC has no additional comments to make. Agenda Item 4 - Cumulative effects Possible cumulative or in-combination effects The inclusion of the National Grid substation within an overall between projects and with other projects will be cumulative noise limit in Requirement 27 of the draft DCOs (REP7-007) is welcomed. considered. ESC has expressed concerns previously that the operational limits The ExAs will invite submissions from IPs who currently proposed, by virtue of being above the background wish to raise matters in relation to this item. sound level, will permanently change the sound climate in the The Applicants will be provided with a right of locality. The Council is particularly concerned in relation to noise creep and the impact of future connections to the proposed reply.

substations site. This is because the operational noise impact of future developments would be assessed in the context of a new noise climate. ESC considers that known future connections to the National Grid substation which are reasonably foreseeable should be considered as part of the cumulative assessment. As set out in the Council's Local Impact Report (REP1-132), National Grid Ventures (NGV) has previously identified the Friston site as the connection point for their Nautilus and Eurolink projects should the National Grid substation be consented under these projects. The Applicants have not however undertaken this work. The Applicants commitment to ESC following the hearing to provide a pre-commencement Operational Noise Control Plan which commits to the use of Best Practicable Means to minimise the rating level further providing mitigation measures do not add unreasonable costs, delays to the projects or results in other adverse environmental impacts is welcomed and it is hoped will help to minimise the noise creep. This commitment however does not negate the need to provide a cumulative assessment of the impacts as a result of the connection infrastructure associated of the NGV projects with EA1N and EA2. Agenda Item 5 - Any other business relevant to the Agenda The ExAs may raise any other topics bearing on the topic for this Agenda as is expedient, having particular regard to matters bearing on noise

raised in previous hearings and the readiness of				
the persons present to address such matters.				
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.				
Agenda Item 6 - Procedural decisions, review of actions and next steps				
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 5.				
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 action list will be published if required.				
Agenda Item 7 – Closure of hearings				