

The Great Grid Upgrade

Sea Link

Sea Link

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1. Introduction

1.1 Construction and Operational Noise, Issue Specific Hearing 3, Action Point 55

- 1.1.1 A tripartite noise meeting was held with East Suffolk Council, Thanet District Council, and Sea Link on Thursday 9th April 2026 to discuss the points within Action Point 55, namely:
1. draft a dDCO requirement relating to the s61 process and confirm whether s61 commitments should be on the face of the DCO or within the outline construction noise and vibration management plan (oCNVMP).
 2. agree wording of Article 49 as it relates to both construction and operation.
 3. draft a dDCO requirement for operational converter and substation noise limits and confirm whether noise thresholds should be on the face of the DCO or part of the REAC.
- 1.1.2 This Technical Note has been drafted to encapsulate the discussion between the parties present during the meeting before Deadline 6 and the actions undertaken by the Applicant following the meeting. It should be noted that given the timeframe between the meeting and Deadline 6, the position could not be agreed in all areas between the parties prior to the deadline.

2. Construction Noise, Draft Section 61 Requirement & Article 49 Wording

2.1.1 Construction noise and vibration will be managed through a Section 61 process with the local authorities. The following revised wording in the Outline Construction Noise and Vibration Management Plans (oCNVMP) has been agreed and included in the version submitted at Deadline 6.

“4.4.2 Section 61 applications for prior consent under the Control of Pollution Act 1974 (HM Government, 1974) will be prepared and submitted in accordance with the requirements, preferences and processes set by [the local authorities]. The contractor(s) will engage proactively with [the local authorities] to agree the format, scope, level of detail, and submission frequency of Section 61 during the works.

4.4.3 [The local authorities] will retain full discretion to determine how the Section 61 process is implemented throughout the works, including the ability to vary, increase, reduce or otherwise modify the nature or frequency of applications as the Proposed Project progresses, including the use of pre-application assessments, if appropriate. This approach ensures [the local authorities] has sufficient oversight of how construction noise and vibration is regulated and monitored.

4.4.4 The purpose of adopting a Section 61 led approach is to secure and demonstrate the use of Best Practicable Means (BPM) for controlling construction noise and vibration, in line with Control of Pollution Act 1974 and relevant guidance such as BS 5228-1 (BSI, 2014) and BS 5228-2 (BSI, 2014). Section 61 applications will provide details of proposed working hours, plant and equipment, construction methods, and any mitigation or monitoring to manage potential effects.

4.4.5 This process gives assurance to [the local authorities] and nearby communities that noise and vibration will be managed transparently and responsibly, that appropriate mitigation will be implemented, and that any exceedances or changes in methodology will be notified and addressed through the agreed S61 process.”

2.1.2 Reference to ‘the local authorities’ in parentheses state the applicable local authority(s) (East Suffolk Council, or Thanet District Council and/or Dover District Council) in each of the respective oCNVMPs for the Suffolk and Kent Onshore Schemes.

2.2 Article 49 Wording

2.2.1 Following discussion, the Applicant has agreed to amend Article 49(1)(b) and (2) of the draft Development Consent Order submitted at Deadline 6 to clarify that the operational measures contained within the Register of Environmental Actions and Commitments will apply where the nuisance is related to the ongoing use of the authorised project rather than construction (rather than referring to the Construction Noise and Vibration Management Plan).

2.3 Operational Noise: Commitments to Specific Noise Levels

- 2.3.1 The Applicant considers that the application documents already secure the noise controls discussed in Action Point 55.
- 2.3.2 Under Register of Environmental Commitments and Actions commitment NV11, the Applicant is committed to not exceeding a rating level of 34dB $L_{A,r,Tr}$ in accordance with BS4142:2024+A1:2019 'Methods for rating and assessing industrial and commercial sound' at any noise sensitive receptor from Saxmundham Converter Station and Minster Converter Station and Substation. There is also a commitment to reduce levels to as low reasonably practicable for Saxmundham Converter Station and Friston Substation under NV07 and for Minster Converter Station and Minster Substation under NV09.
- 2.3.3 East Suffolk Council and Thanet District Council requested aspirational targets to achieve 5 dB below background sound level as a result of noise from the converter stations. The Applicant has committed to practicable means to reduce sound levels from Saxmundham Converter Station and Minster Converter Station and Substation where possible, although the Applicant is not planning to incorporate a requirement to achieve 5 dB below background sound level, as they are below reasonable levels to secure and unnecessary given the above.
- 2.3.4 For example, 5dB below background sound level would mean securing 20 dB $L_{A,r,Tr}$ at Manor Gardens (639206,262890), 17 dB $L_{A,r,Tr}$ at Hill Farmhouse (639802,261758), Hurts Hall (639058,262556), and Properties in Sternfield to the southwest (nominally: 639117,261686) and 15 dB $L_{A,r,Tr}$ at Wardspring Farm (640274,262954) and Trust Farm (640472,262618). For Minster Converter Station and Substation, noise levels of 5dB below background sound levels would be 24 dB $L_{A,r,Tr}$ for Great Oaks Small School and Ebbsfleet Farm House (633201,163044), 1 & 2 Ebbsfleet Farm Cottages (633354,163118), and 3 & 4 Ebbsfleet Farm Cottage (633323,163233). These noise levels are far below what is reasonable to secure.
- 2.3.5 NV07 and NV09 state:
- “Proposed substations and converter stations will be designed such that noise from their normal operation does not cause a significant adverse effect at nearby noise sensitive receptors. Additionally, where practicable, the substation and converter station designs will seek to achieve noise levels at nearby noise sensitive receptors as low as reasonably possible.”*
- 2.3.6 It was raised by local authorities whether these Register of Environmental Commitments and Actions commitments for operational noise be changed to explicit decibel levels.
- 2.3.7 NV11 already provides a firm commitment to a maximum of 34 dB $L_{A,r,Tr}$ and this commitment is contained within Section 1 of the Register of Environmental Commitments and Actions, which in turn is firmly secured by Requirement 5 in the draft DCO. Therefore, it is not considered necessary to replicate the commitment to 34 dB $L_{A,r,Tr}$ in NV07 and NV09 or to secure noise levels that are even lower than this at individual properties. It should also be noted that NV07 and NV09 already provide further commitments to reducing noise levels to 'as low as reasonably possible'. Ensuring that the Applicant continues to seek ways to reduce noise below the already low noise levels. Of course, the Applicant cannot reduce noise levels to levels that are not practicable or possible, so it would be challenging to commit more firmly than is already contained in the commitment. However, it is considered that existing

commitments already achieve the discussed aims of ensuring the Applicant continues to consider whether noise levels can be reduced to levels further below 34 dB $L_{Ar,Tr}$.

- 2.3.8 Under NV12, Friston Substation rating levels shall be at least 5dB below background noise levels at any noise sensitive receptor, under equivalent free-field conditions 1 meter from the façade of the receptor. This is significantly below the noise rating levels (and also equivalent to 10 dB below the operational rating level limit of East Anglia ONE and TWO) at the potentially cumulatively impacted residential receptors. It is possible for the Applicant to agree this commitment at Friston because the equipment at Friston substation generates very little noise and because the design has progressed to an extent where this commitment can be made.
- 2.3.9 The local planning authorities also asked whether there could be a process to demonstrate compliance with NV07 and NV09 in terms of reducing noise levels. Due to the short time-frame between the meeting and Deadline 6 requirement, the Applicant is still considering whether any further commitments can be made on demonstrating to relevant planning authorities how the Applicant has complied with the commitments to reduce operational noise levels in line with NV07 and NV09 and will make any appropriate revisions to the Register of Environmental Commitments and Actions at Deadline 7 should an approach be agreed on this point.

2.4 Justification for 34 dB $L_{Ar,Tr}$ noise rating limit

- 2.4.1 BS 4142 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, particularly at night.
- 2.4.2 The 2019 version of BS 4142 does not define 'low' in the context of background sound levels or rating levels. However, Association of Noise Consultants (ANC) guidance suggests that the values stated in the 1997 version would not be unreasonable, namely: very low background sound levels as being less than about 30 dB L_{A90} , and low rating levels as being less than about 35 dB $L_{Ar,Tr}$.
- 2.4.3 BS 4142 also refers to other guidance, such as BS 8233 in relation to context and absolute sound levels. The assessment also makes reference to other applicable guidance, such as World Health Organization (WHO) Guidelines for Community Noise (GfCN), WHO Night Noise Guidelines (NNG), and The Chartered Institution of Building Services Engineers (CIBSE) guidance.
- 2.4.4 The WHO GfCN and BS 8233 provide recommended guideline values for internal and external amenity spaces, including bedrooms, living rooms, and gardens, albeit for 'anonymous' noise sources, such as road traffic. The guidance values for desirable conditions are:
- Bedrooms at night: 30 dB $L_{Aeq,8h}$;
 - Living rooms and bedrooms during the day: 35 dB $L_{Aeq,16h}$;
 - External amenity spaces (gardens): 50 dB $L_{Aeq,16h}$.
- 2.4.5 With regards to internal sound levels, consideration must be given to reduction in sound level through a partially open window, which may be required for ventilation. WHO GfCN and BS 8233 indicate that the reduction in sound level through a partially open window is 15 dB (attenuation through closed windows would be expected to be in the region of 25 dB). Assuming a 15 dB reduction, the corresponding external sound levels for desirable conditions are:

- Outside bedrooms at night: 45 dB $L_{Aeq,8h}$; and
- Living rooms and bedrooms during the day: 50 dB $L_{Aeq,16h}$.

2.4.6 It is noted that the guideline values for reasonable conditions in external amenity areas is the same as the guideline value outside of habitable spaces during daytime periods (i.e. 50 dB $L_{Aeq,16h}$).

2.4.7 The WHO NNG (WHO, 2009) indicates that the lowest observed adverse effect level (LOAEL) is 40 dB $L_{night,outside}$ (this is the same as 40 dB $L_{Aeq,8h}$ externally).

2.4.8 CIBSE guidance provides recommended sound level criteria for various internal spaces, including bedrooms, with a recommended internal upper sound level of NR25. Previous versions of the CIBSE guidance stated that if the sound contained tones, values should be reduced by 5. It is considered that this is a sensible precaution and as such a guidance upper sound level of NR20 is assumed. The NR value is approximately 6 dB lower than the corresponding dBA level (i.e. NR20 \approx 26 dBA) (25 dBA assumed for simplicity). Assuming a 15 dB reduction through an open window, suitable internal sound levels would be expected to be achieved where the noise rating level is below 40 dB $L_{Aeq,8h}$ externally, which aligns with the WHO NNG guidance.

2.4.9 The various guidance documents therefore tend towards a LOAEL of 40 to 45 dB $L_{Aeq,T}$ for night-time, which is considered the worst-case period. The lower of these values has been taken and a 6dB 'penalty' applied to account for the non-anonymous nature of the source to derive a conservative criteria of 34 dB $L_{Ar,Tr}$.

2.4.10 The operational criterion of a noise rating level of 34dB $L_{Ar,Tr}$ is considered to comply with English policy such as Planning Practice Guidance – Noise, which defines noise below the lowest observed adverse effect level (LOAEL) into no observed adverse effect level (NOAEL):

“Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life”.

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