



THE DROVES
SOLAR FARM

The Drovers Solar Farm

Preliminary Environmental Information Report

Volume III, Chapter 10: Noise and Vibration

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Appendix 10.1

Consultation and Legislation, Planning Policy and Guidance



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1 Consultation and Legislation, Planning Policy and Guidance

1.1 Consultation

- 1.1.0 The Planning Inspectorate (PINS) was provided with the Scoping Request in November 2024 (**Volume III, Appendix 2.1**), which included a chapter setting out the proposed scope of the noise and vibration assessment and methodology for the Scheme. A Scoping Opinion was subsequently issued in December 2024 by PINS on behalf of the Secretary of State (**Volume III, Appendix 2.2**). The comments from PINS in respect of the noise and vibration assessment have been summarised in Table 1.1 below, alongside commentary on where the comments have been addressed in **Chapter 10: Noise and Vibration**.
- 1.1.1 Further consultation has been undertaken throughout the pre-application phase of the Scheme, and a summary of this, as relevant to noise and vibration, is also provided within Table 1.1 below.
- 1.1.2 The scope and information set out within this chapter has been, and will continue to be, informed by initial scoping and ongoing consultation with a number of relevant bodies. In the first instance, the information set out has been informed by the formal Scoping Opinion provided by PINS, with consultees having been contacted and/or providing input into the consultation in relation to noise and vibration.

Table 1.1 Summary of Consultation Undertaken as of January 2025

Consultee	Comments	Response
Breckland Council Environmental Health Officer (EHO) – October 2024	Outlined the proposed survey and operational noise prediction methodology. This included a plan of the proposed survey locations.	Survey undertaken in line with proposed approach, as shown in Volume III Appendix 10.2.
Breckland Council EHO – October 2024	Shows agreement with proposed approach and survey measurement locations, requests consideration of tonality and low frequency noise, including consideration of 1/3 octave band levels and DEFRA / University of Salford method for the assessment of low frequency noise.	Feedback taken into account when considering criteria for the assessment of operational noise (see section 10.2).
PINS - Scoping Report – November and December 2024	Submitted scope of noise & vibration assessment as outlined in Chapter 11: Noise and Vibration of the Scoping Opinion Request. Receipt of Scoping Opinion outlined agreements on scoped-out elements and recommended consultation with EHO of local authority to agree on the full scope of the assessment	Scope of the assessment in line with the agreed scope outlined in PINS response and consultation to take place (see section 10.2.3 and Table 10.1 for scope of agreed assessment). 3.6.1: Decommission



Consultee	Comments	Response
	<p>Response as follows:</p> <p>3.6.1: Decommissioning traffic noise to be scoped in.</p> <p>3.6.2: Traffic vibration scoped out.</p> <p>3.6.3: Decommissioning noise from BESS/NGS/CS scoped in based on comparison to construction effects.</p> <p>3.6.4 Decommissioning vibration from BESS/NGS/CS/Solar PV scoped in.</p> <p>3.6.5: Operation and decommissioning noise from Grid Connection Infrastructure to be scoped out.</p> <p>3.6.6: Operation and decommissioning vibration from Grid Connection Infrastructure scoped out.</p> <p>3.6.7: Receptors of low sensitivity to be scoped out.</p> <p>3.6.8: Noise & vibration effects on Ecological receptors from Operation to provide further information for scoping, not requested for construction or decommissioning.</p> <p>3.6.9: Study area to be justified and agree with consultation bodies.</p> <p>3.6.10: Noise & vibration from traffic during construction and decommissioning to be assessed.</p> <p>3.6.11: Construction noise & vibration to refer to separate distances from piling or drilling works and likely level of vibration/noise.</p>	<p>traffic noise assessed based on construction traffic effects. (para.10.2.4)</p> <p>3.6.2: Scoped out (para.10.2.8)</p> <p>3.6.3: Assessment undertaken (para.10.2.4)</p> <p>3.6.4: Scoped out (para.10.2.7)</p> <p>3.6.5: Scoped out (para.10.2.10)</p> <p>3.6.6: Scoped out (para.10.2.10)</p> <p>3.6.7: Scoped out (para.10.2.11)</p> <p>3.6.8: Scoped In for operational phase – Information provided in para 10.2.6.</p> <p>3.6.9: Consultation sent, justified in para.10.2.12</p> <p>3.6.10: Construction traffic noise assessed; vibration scoped out.</p> <p>3.6.11: Assessment outlines levels at separate distances for HDD/drilling noise and vibration.</p>
Breckland Council EHO - Jan 2025	Seeking agreement of scoped in and scoped out elements of the noise and vibration assessment.	Response received on 8 th April 2025, confirming agreement to proposed scope and methodology.

1.2 Legislation, Planning Policy and Guidance

Legislation

1.2.0 This section identifies the relevant legislation, planning policy, and guidance which underpin the assessment methodology for noise and vibration, and which have informed the preliminary environmental information presented in this chapter.

1.2.1 The following legislation has been taken into account in the assessment of effects:

- Environmental Protection Act 1990; and



- Control of Pollution Act 1974.

1.2.2 The Environmental Protection Act 1990 (Her Majesty's Stationery Office (HMSO), 1990) [Ref 10-1] defines the powers for local authorities to investigate and control statutory nuisance from noise. Local authorities also have powers under the Control of Pollution Act (CoPA) 1974 (HMSO, 1974) [Ref 10-2] to control noise and vibration from construction activities. Specifically, Section 60 of the CoPA provides the Local Authority with the power to impose at any time operating conditions on the development site. Section 61 allows the developer to negotiate a set of operating procedures with the Local Authority prior to commencement of site works. Notwithstanding these powers, the aim of the planning system is to minimise and control where required construction and operational noise levels from commercial developments.

National Planning Policy

1.2.3 The following policy has been taken into account in the assessment of effects and the development of mitigation measures to reduce effects.:

- National Policy Statement for Energy (NPS EN-1, November 2023);
- National Policy Statement for Renewable Energy Infrastructure (NPS EN-3, November 2023);
- National Policy Statement for Electricity Networks Infrastructure (NPS EN-5, November 2023);
- Noise Policy Statement for England (NPSE, March 2010);
- National Planning Policy Framework (NPPF, December 2024);
- Noise Planning Practice Guidance (PPG, July 2019); and
- Breckland Local Development Plan (September 2023).

1.2.4 The Overarching National Policy Statement (NPS) for Energy (NPS EN-1) [Ref 10-5] in section 5.12 Noise and Vibration recognises that noise and vibration from energy development can have effects on the quality of human life as well as on wildlife in some cases. This document outlines general principles for the control and management of these effects and relevant factors and standards to consider but do not provide specific guidance.

1.2.5 The NPS for Renewable Energy Infrastructure (NPS EN-3) [Ref 10-6] section 2.10 Solar Photovoltaic Generation) specifically considers solar photovoltaic generation and outlines impact considerations for construction including traffic and transport noise and vibration (paragraph 2.10.120), namely assessing worst-case traffic movements for material deliveries and potential routes to the site. The accompanying text does not however identify specific effects related to noise from operation of a solar development.

1.2.6 The NPS for Electricity Networks Infrastructure (NPS EN-5) [Ref 10-7] section 2.9.26 Noise and Vibration sets out specific considerations which apply to electricity network infrastructure. Noise can be generated by high-voltage transmission lines under certain conditions due to corona discharge, although this is not considered relevant in this case due to the nature of the Scheme (see paragraph 10.2.11 of **Volume I, Chapter 10: Noise & Vibration**). NPS EN-5 also notes the potential for substation equipment such as transformers and other voltage regulation equipment to produce noise.



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- 1.2.7 The Noise Policy Statement for England (NPSE) [Ref 10-4] and National Planning Policy Framework (NPPF) [Ref 10-3] both include general planning guidance on noise and introduces the principles of adverse noise effects (which should be mitigated and reduced to a minimum) and significant adverse noise effects (which should be avoided). Paragraph 198 of the NPPF also notes that tranquil areas which have remained relatively undisturbed by noise, and which are prized for their recreational and amenity value should be identified and protected.
- 1.2.8 The Planning Practice Guidance (PPG) [Ref 10-8] provides more detailed information on the relevance of noise to the planning process and on defining effect thresholds, although these are not precisely defined and need to be considered on a case-by-case basis.
- 1.2.9 Professional Practice Guidance on Planning and Noise (ProPG), published by the Association of Noise Consultants, Institute of Acoustics and the Chartered Institute of Environmental Health, provides practitioners guidance on a recommended approach to the management of noise in the context of the planning system. Although the guidance is focused on new residential development, it encourages good acoustic design processes and highlights the importance of considering noise as an early part of development design.

Local Planning Policy

- 1.2.10 The Local Development Control Plan [Ref 10-9] and Site-Specific Policies [Ref 10-10] of Breckland Council promote the use of renewable energy and set out the strategic mechanisms through which an increase in the use of renewable energy can be achieved. Policy ENV 10 (Renewable Energy Development) shows support for commercial scale renewable energy developments unless the environmental impacts (including noise) of allowing the proposal would outweigh the wider social, economic and environmental benefits derived from it.

Guidance

- 1.2.11 The noise and vibration assessment has also considered the following guidance documents:
- BS 4142:2014 (amended 2019) (BS 4142): 'Method for rating and assessing industrial and commercial sound' [Ref 10-12], provides a method of assessing the operational noise associated with the onshore NGS, and customer substation;
 - British Standard (BS) 5228:2009 (amended 2014) Part 1 & 2 (BS 5228): 'Code of Practice for noise and vibration control on construction and open sites' [Ref 10-13], provides detailed guidance on construction noise and vibration (respectively), and its estimation and control;
 - International Organisation for Standardisation (ISO) 9613-2 'Acoustics - Attenuation of sound during propagation outdoors - Part 2: General method of calculation' (2024) [Ref 10-11], provides a standardised method of calculating sound propagation outdoors.;
 - Calculation of Road Traffic Noise (CRTN), Department of Transport (1988) [Ref 10-15], is used to assess road traffic noise; and
 - Design Manual for Roads and Bridges (DMRB), Transport Scotland (2020) [Ref 10-14], contains information about current design standards relating to the design, assessment and operation of motorway and all-purpose trunk roads in the United Kingdom.
 - Current Government advice to local planning authorities in both England and Wales refers to BS 4142:2014+A1:2019 (BS 4142) as being the appropriate guidance for assessing



commercial operations and fixed building services plant noise. The standard provides an objective method for rating the significance of impact from industrial and commercial operations. It describes a means of determining sound levels from fixed plant installations and determining the background sound levels that prevail on a site.

- 1.2.12 The assessment of the impacts is based on the subtraction of the pre-existing background sound level ($LA_{90,T}$) from the Rating Level ($L_{Ar,T,r}$). This method is only applicable for external noise levels.
- 1.2.13 The standard does not give a definitive method for determining the background sound level but instead, as a commentary, states that “*the objective is not simply to ascertain a lowest measured background sound level, but rather to quantify what is typical during particular time periods*”. Clause 8.1.4 of the standard, which discusses the monitoring duration, states “there is no “single” background sound level as this is a fluctuating parameter. However, the background sound level used for the assessment should be representative of the period being assessed.”
- 1.2.14 As a note to this clause the following commentary is given on obtaining a representative backgrounds sound level: “*To obtain a representative background sound level a series of either sequential or disaggregated measurements ought to be carried out for the period(s) of interest, possibly on more than one occasion. A representative level ought to account for the range of background sound levels and ought not automatically to be assumed to be either the minimum or modal value.*”
- 1.2.15 The rating level is defined objectively as the specific source noise level in question (either measured or predicted) with graduated corrections for tonality (up to +6 decibels (dB) A-weighted sound level (A)), impulsivity (up to +9 dB(A)), intermittency (+3 dB(A)) and other sound characteristics (+3 dB(A)) which may be determined either subjectively or objectively, if necessary.
- 1.2.16 The background sound level is subtracted from the rating level. The following is considered to evaluate the likelihood of complaint:
- A difference of around +10 dB is likely to be an indication of a significant adverse impact, depending on context;
 - A difference of around +5 dB is likely to be an indication of an adverse impact, depending on context; and
 - A difference of +0 dB or less is an indication of the specific sound source having a low impact, depending on the context.
- 1.2.17 Noise and vibration from onsite construction and decommissioning activities have been assessed with the guidance of BS 5228 Parts 1 and 2 ‘Code of practice for noise and vibration control on construction and open sites’ (BSI, 2009, amended 2014). This provides guidance on a range of considerations relating to construction noise and vibration including general control measures, estimating likely levels and example criteria.
- 1.2.18 The prediction method of Calculation of Road Traffic Noise’ (CRTN, Department of Transport, 1988) has been used to calculate the possible noise impacts of construction related traffic passing to and from the Site along local surrounding roads. This is assessed with reference to the DMRB (Highways England, 2019): see criteria in Table 10.2 of **Volume I, Chapter 10: Noise & Vibration**.



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1.2.19 The propagation of operational noise from Scheme and associated Development plant was modelled using the standard methodology set out in International Organisation for Standardisation (ISO) 9613-2 'Acoustics - Attenuation of sound during propagation outdoors - Part 2: General method of calculation' (2024). This allowed evaluating the potential noise generated at different distances from the Solar PV Site on a worst-case basis.



References

- Ref 10-1. HMSO (1990): Environmental Protection Act, Part III.
- Ref 10-2. HMSO (1974): Control of Pollution Act, Part III.
- Ref 10-3. Ministry of Housing and Communities & Local Government (2024), National Planning Policy Framework (NPPF).
- Ref 10-4. Department for Environment, Food and Rural Affairs (2010), Noise Policy Statement for England (NPSE).
- Ref 10-5. Department for Energy Security & Net Zero, The Overarching National Policy Statement (NPS) for Energy (EN-1)
- Ref 10-6. Department for Energy Security & Net zero, National Policy Statement for Renewable Energy Infrastructure (EN-3)
- Ref 10-7. Department for Energy Security & Net zero, National Policy Statement for Electricity Networks infrastructure (EN-5)
- Ref 10-8. Institute of Acoustics, Chartered Institute of Environmental Health & Association of Noise Consultants (2017), Professional Practice Guidance on Planning and Noise (ProPG).
- Ref 10-9. Breckland Council - 'Adopted Core Strategy and Development Control Policies Development Plan Document' [accessed January 2025]
- Ref 10-10. Breckland Council - 'Adopted Site Specific Policies and Proposals [accessed January 2025]
- Ref 10-11. International Standards Organisation, ISO 9613-2:2014 'Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation'
- Ref 10-12. BSI (2019), BS 4142: 2014-A1 2019: Methods for rating and assessing industrial and commercial sound.
- Ref 10-13. BSI (2014), BS 5228:2009-A1:2014, Code of practice for noise and vibration control on construction and open sites – Part 1: Noise and Part 2: Vibration.
- Ref 10-14. Highways England (2019): Design Manual for Roads and Bridges (DMRB) – LA111 – Noise and Vibration, Nov 2019.
- Ref 10-15. HMSO Department of Transport (1988), Calculation of Road Traffic Noise (CRTN)
- Ref 10-16. Department of Environment, Food & Rural Affairs (DEFRA) and University of Salford (2005), Method for the assessment of low frequency noise.



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