WHITESTONE SOLAR FARM

Volume 6: Environmental Statement

6.20 Appendix 14.1 Legislation, Policy and Guidance

Application Document ref. EN0110020/APP/6.20
Revision 01
June 2026

Planning Act (2008)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009**ProjectReference**
Regulations 5(2)(a)

whitestonesolarfarm.co.uk

Document Status					
Version	**Purpose of Document**	**Authored by**	**Reviewed by**	**Approved by**	**Review Date**
Rev01	DCO Submission	ERM	TLT, Pershing, DWD, Whitestone Net Zero Ltd	Whitestone Net Zero Ltd	01/06/2026

Approval for Issue		
Whitestone Net Zero Ltd	[redacted]	1 June 2026

The following report and supporting infographics have been produced by human authors. Artificial Intelligence (AI) has not been used to create or alter the technical meaning of these materials. ERM is technology-enabled and may use technology including AI in service delivery, in compliance with all laws applicable to it. Where AI has been used as an administrative support function, this has been appropriately validated by human authors.

ERM take full ownership and responsibility for the report, notwithstanding that ancillary technology (including AI tools) may have been used in service provision.

Prepared by:

ERM

Prepared for:

Whitestone Net Zero Ltd

Contents

Tables

Glossary

Term	Meaning
Decibel (dB)	The logarithmically scaled measurement unit of sound.
Environmental Statement (ES)	The Environmental Statement which presents the environmental information relating to the Proposed Development. The ES has been prepared to present information for formal consultation in accordance with current EIA regulation.
Rating level, $L_{Ar,Tr}$	The specific sound level plus any adjustment for the characteristic features of the sound.
The Applicant	Whitestone Net Zero Ltd.
The Application	The Application will be submitted to the Secretary of State for a Development Consent Order.
The Proposed Development	The proposed Whitestone Solar Farm.

Acronyms

Acronym	Meaning
BPM	Best Practicable Means
CDC	City of Doncaster Council
CoPA	Control of Pollution Act
CRTN	Calculation of Road Traffic Noise
DMRB	Design Manual for Roads and Bridges
EPA	Environmental Protection Act
LOAEL	Lowest Observed Adverse Effect Level
NOEL	No Observed Effect Level
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NSIP	Nationally Significant Infrastructure Project
PPGN	Planning Practice Guidance - Noise
RMBC	Rotherham Metropolitan Borough Council

Acronym	Meaning
SOAEL	Significance Observed Adverse Effect Level
UAEL	Unacceptable Adverse Effect Level

Units

Units	Meaning
dB	Decibel

14.1 Legislation, Policy and Guidance

Legislation

Control of Pollution Act, 1974[1]

14.1.1 The Control of Pollution Act 1974 (CoPA) provides the definition of Best Practicable Means (BPM) to minimise noise (including vibration), the basis for defence against noise abatement action taken by a local authority (Section 60). The Act also provides for persons responsible to seek prior consent for works on construction sites (Section 61) including BPM steps to minimise noise, and the basis for defining codes of practice (applies to 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').

Environmental Protection Act, 1990[2]

14.1.2 The Environmental Protection Act 1990 (EPA) sets out the duty for local authorities to investigate and, where identified, take abatement action against noise nuisance. The Act provides the definition of BPM to minimise noise (including vibration), the basis for defence against noise abatement action taken by a local authority (Section 80). The Act also provides for individuals to seek for abatement action to be taken by a magistrate's court against noise nuisance (Section 82).

National Planning Policy

Overarching National Policy Statement for Energy (2025)[3]

14.1.3 The Overarching National Policy Statement for Energy (NPS EN-1) provides the overarching government policy on energy Nationally Significant Infrastructure Projects (NSIPs), how planning applications relating to energy will be assessed, and the way in which any impacts and mitigation measures will be considered. Part 5, Section 5.12 of this policy statement specifically relates to noise and vibration.

14.1.4 Paragraph 5.12.6 states:

"Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:

- *A description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal characteristics, if the noise is impulsive, whether the noise contains particular high or low frequency content or any temporal characteristics of the noise;*
- *Identification of noise sensitive receptors and noise sensitive areas that may be affected;*
- *The characteristics of the existing noise environment;*
- *A prediction of how the noise environment will change with the proposed development*
  - *in the shorter term, such as during the construction period;*

  - *in the longer term, during the operating life of the infrastructure; and*
  - *at particular times of the day, evening and night (and weekends) as appropriate, and at different times of year;*
- *An assessment of the effect of predicted changes in the noise environment on any noise-sensitive receptors, including an assessment of any likely impact on health and quality of life / well-being where appropriate, particularly among those disadvantaged by other factors who are often disproportionately affected by noise-sensitive areas;*
- *If likely to cause disturbance, an assessment of the effect of underwater or subterranean noise; and*
- *All reasonable steps taken to mitigate and minimise potential adverse effects on health and quality of life."*

National Policy Statement for Renewable Energy Infrastructure (2025)[4]

14.1.5 The guidance in National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) refers specifically to renewable energy sources, and references the general guidance provided in EN-1 with further considerations that are technology specific.

14.1.6 Section 2.10 acknowledges that many solar farms will be sited in areas served by minor roads and therefore noise and vibration from traffic on these road networks during the construction phase of solar farms will need to be considered as part of the assessment.

National Policy Statement for Electricity Networks Infrastructure (2025)[5]

14.1.7 The National Policy Statement for Electricity Networks Infrastructure (NPS EN-5) provides advice to operators of the electricity transmission and distribution networks and sets out additional technology-specific considerations for noise and vibration.

14.1.8 Section 2.9 provides guidance on possible causes for changes to noise from high voltage transmission lines and substations. Assessment guidance is provided, stating that it may be appropriate to use "modelling tools" for the prediction of noise propagation over distance. It states that assessment should follow the principles of the relevant British Standards, quoting the example of BS 4142.

National Planning Policy Framework (2024)[6]

14.1.9 The National Planning Policy Framework (NPPF) was introduced in March 2012 and most recently revised in February 2025. The document sets out the government's planning policies for England and how these are expected to be applied.

14.1.10 Applications for planning permission must be determined in accordance with a local planning authority's development plan unless material considerations indicate otherwise. The development plan includes any local plan or neighbourhood plans which have been adopted for the area.

14.1.11 The planning system is required to enhance the natural and local environment. Consequently, the aim is to prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of noise pollution. The NPPF at paragraph 198 states that planning policies and decisions should aim to:

14.1.12 Mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise from giving rise to Significant Adverse impacts on health and quality of life; and

14.1.13 Identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

14.1.14 With regards to 'Adverse effects' and 'Significant Adverse effects' the NPPF refers to the Noise Planning Policy Statement for England 2010 Explanatory Note.

Noise Policy Statement for England 2010[7]

14.1.15 Paragraph 1.6 of the Noise Planning Policy Statement for England 2010 (NPSE) sets out the long-term vision of the government's noise policy, as reproduced below:

14.1.16 *"Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development."*

14.1.17 The NPSE sets out aims that together with the vision should provide the necessary clarity and direction to enable decisions to be made regarding what is an acceptable noise burden to place on society:

- Avoid Significant Adverse impacts on health and quality of life;
- Mitigate and minimise adverse impacts on health and quality of life; and
- Where possible, contribute to the improvement of health and quality of life.

14.1.18 The explanatory note in the NPSE sets out the following concepts:

- No Observed Effect Level (NOEL) – the level below which there is no detectable effect on health and quality of life due to noise;
- Lowest Observed Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and
- Significant Observed Adverse Effect Level (SOAEL) - the level above which Significant Adverse effects on health and quality of life occur.

14.1.19 The NPSE recognises that it is not possible to have single objective noise-based measures that define the SOAEL and LOAEL that are applicable to all sources of noise in all situations. The levels are likely to be different for different noise sources, receptors and at different times of the day and night.

Local Policy

Doncaster Local Plan 2015-2035[8]

14.1.20 Policy 54 from the City of Doncaster Council's (CDC) Local Plan document, adopted September 2021, is relevant to noise and vibration. The policy has been reproduced below.

"Policy 54: Pollution Development proposals that are likely to cause pollution, or be exposed to pollution, will only be permitted where it can be demonstrated that pollution can be avoided, or where mitigation measures (such as those incorporated into the design and layout of development) will minimise significantly harmful impacts to acceptable levels that protect health, environmental quality and amenity. When determining planning applications, the agent of change principle will be applied, and particular consideration will be given to:

…

b) the presence of noise generating uses close to the site, and the potential noise likely to be generated by the proposed development. A Noise Assessment will be required to enable clear decision-making on any relevant planning application. Proposals will need to have regard to the standards identified in Appendix 11 to establish is the proposal is acceptable in noise impact terms."

14.1.21 Policy 54 refers to Appendix 11, which provides guidance on assessing noise from industrial sources. The guidance includes assigning specific noise thresholds to the Observed Effect Levels (see NPSE and Planning Practice Guidance – Noise (PPGN)). The relevant guidance has been reproduced below.

14.1.22 *"To ensure that the proposals are acceptable in noise terms development should comply with BS4142:2014 Method for Rating and Assessing Industrial and Commercial Sound. In determining the acceptability of development proposals the standards set out in Table 2 will be applied."*

14.1.23 The noise thresholds and respective Observed Effect Levels are summarised below in **Table 14.1-1**.

Table 14.1-1: CDC BS 4142 Assessment Criteria and Thresholds (Table 2 in Local Plan)

BS 4142 Rating Level Threshold	Comparable Effect Level Threshold	Action Required Above this Level
Equal to Baseline L_{90} Level	No Observed Adverse Effect Level (NOAEL)	No specific measures required
Baseline Level +5 dB	Lowest Observed Adverse Effect Level (LOAEL)	Mitigate and reduce to below +5 dB
Baseline Level +10 dB	Significant Observed Adverse Effect Level (SOAEL)	Mitigate and reduce to below +5 dB or avoid.

Rotherham Local Plan Adopted June 2018 – Sites and Policies[9]

14.1.24 Policy SP 52 from Rotherham Metropolitan Borough Council's (RMBC) Local Plan document relates to noise and vibration. The policy has been reproduced below.

"Development proposals that are likely to cause pollution, or be exposed to pollution, will only be permitted where it can be demonstrated that mitigation measures will minimise potential impacts to levels that protect health, environmental quality and amenity. When determining planning applications, particular consideration will be given to:

a) the detrimental impact on the amenity of the local area, including an assessment of the risks to public health

b) the presence of noise generating uses close to the site, and the potential noise likely to be generated by the proposed development. A Noise Assessment will be required to enable clear decision-making on any planning application…"

North East Derbyshire Local Plan 2014 to 2034[10]

14.1.25 Paragraph 8.66 from North East Derbyshire Local Plan 2014 to 2034 relates to noise:

14.1.26 *"Noise pollution is noise created by man-made sources which is excessive, causes disturbance or annoyance, and can affect wildlife and sensitive areas, including areas known for their tranquillity. It often occurs as a result of industrial perations, transportation, or roads. National Policy [(NPSE)] and the NPPF acknowledge that good planning should aim to prevent the adverse effects of noise from being unacceptable, both in identifying locations for new noise sensitive and noise generating development."*

Noise Assessment Standards and Guidance

Planning Practice Guidance – Noise (2019) (PPGN)[11]

14.1.27 PPGN expands on the 'NOEL, LOAEL and SOAEL' concepts set out in the NPSE, and introduces Unacceptable Adverse Effect Level (UAEL) (Unacceptable Adverse Effect Level). A summary of the advice is reproduced in **Table 14.1-2**.

Table 14.1-2: PPGN Guidance on Observed Adverse Effect Levels due to Noise

Response	Examples of Outcomes	Increasing Effect Level	Action
No Observed Adverse Effect Level			
Present and not intrusive	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.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a	Observed Adverse Effect	Mitigate and reduce to a minimum

Response	Examples of Outcomes	Increasing Effect Level	Action
	small actual or perceived change in the quality of life.		
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory.	Unacceptable Adverse Effect	Prevent

BS 5228-1:2009+A1:2014 – Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1. Noise (BS 5228-1)[12]

14.1.28 BS 5228-1 refers to the need for the protection against noise for persons living and working in the vicinity of and those working on construction and open sites. It provides examples of noise control in respect of construction activities. Guidance on noise control targets and example criteria are provided. Methods of calculating the levels of noise resulting from construction activities are also provided along with sound data for various types of plant and equipment.

14.1.29 The standard discusses the importance of community relations, and states that early establishment and maintenance of these relations throughout site operations will go some way towards alleviating community concerns. In terms of neighbourhood nuisance, the following factors are likely to affect the acceptability of construction noise:

- Site location, relative to the noise sensitive premises;
- Existing ambient noise levels;
- Duration of site operations;
- Hours of work;
- The attitude of local residents to the Site operator; and

- The characteristics of the noise produced.

14.1.30 Recommendations are made regarding the supervision, planning, preparation and execution of works, emphasising the need to consider noise at every stage of the operation. Measures to control noise are described, including:

- Control of noise at source by, for example:
- Substitution of plant or activities by less noisy ones;
- Modification of plant or equipment to reduce noise emissions;
- The use of noise enclosures;
- The siting of equipment and its method of use;
- Equipment maintenance; and
- Controlling the spread of noise, e.g. by increasing the distance between plant and noise-sensitive receptors or by the provision of acoustic screening.

BS 5228-2:2009 + A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 2. Vibration (BS 5228-2)[13]

14.1.31 BS 5228-2 discusses construction vibration affecting human receptors and buildings. BS 5228-2 provides guidance on typical vibration levels, associated risks, empirical prediction methods, and mitigation strategies.

BS 7385-2:1993 Evaluation and Measurement for Vibration in Buildings – Guide to Damage Levels from Groundborne Vibration (BS 7385-2)[14]

14.1.32 BS 7385-2 provides guidance on assessing the potential for damage to buildings resulting from groundborne vibration, particularly from sources associated with construction, demolition, or blasting. It outlines acceptable vibration limits and describes methods for measuring and evaluating vibration levels.

BS 4142:2014+A1:2019 – Methods for Rating and Assessing Industrial and Commercial Sound (BS 4142)[15]

14.1.33 BS 4142 sets out a method for the assessment of sound of an industrial and / or commercial nature. The method described in BS 4142 uses outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling used for residential purposes.

BS 8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings (BS 8233)[16]

14.1.34 BS 8233 provides guidance for the control of noise in and around buildings. BS 8233 provides absolute thresholds for internal and external noise levels affecting various noise-sensitive uses, including residential, educational and commercial premises.

ISO 9613-2:2024 – Acoustics – Attenuation of Sound During Propagation Outdoors. Part 2 (ISO 9613)[17]

14.1.35 ISO 9613 specifies the engineering method for calculating the attenuation of sound propagation outdoors in order to predict the levels of environmental noise at a distance. The methods set out in ISO 9613 are implemented as part of the calculation algorithms for industry-standard noise modelling applications, such as SoundPLAN and CadnaA.

Design Manual for Roads and Bridges – LA111 Noise and Vibration (DMRB)[18]

14.1.36 The DMRB issued by National Highways provides noise assessment guidance relating to the construction of infrastructure projects that have the potential to produce changes in noise and vibration levels in the surrounding environment due to new or changes to existing roads. This relates to traffic on the existing road network during the construction phase of the Proposed Development.

Calculation of Road Traffic Noise[19]

14.1.37 Calculation of Road Traffic Noise (hereafter referred to as CRTN) is a guidance document issued by the Department of Transport and it outlines standardized procedures for estimating noise levels generated by road traffic. The methodology incorporates several input variables, including traffic flow rates, average speeds, proportions of heavy goods vehicles, road surface types, site geometry, and the presence of acoustic barriers or absorptive ground surfaces. Using these parameters, the guidance enables predictions of LA10,18hour or LA10,1hour noise levels at specified receptor points, extending up to 300 meters from the roadway.

References

[1] UK Government. (1974). Control of Pollution Act 1974. [Online] Available at: https://www.legislation.gov.uk/ukpga/1974/40 (Accessed March 2026).

[2] UK Government. (1990). Environmental Protection Act 1990. [Online] Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents. (Accessed March 2026).

[3] Department for Energy Security & Net Zero. *Overarching National Policy Statement for Energy (EN1).* s.l. : Open Government Licence v3.0, 2023. ISBN 978-1-5286-6066-2. (2025) [Online] Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025 (Accessed March 2026).

[4] *National Policy Statement for Renewable Energy Infrastructure (EN-3).* s.l. : Open Government Licence v3.0, 2023. ISBN 978-1-5286-6067-9 (2025) [Online] Available at https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3-2025 (Accessed March 2026)

[5] *National Policy Statement for Electricity Networks Infrastructure (EN-5).* s.l. : Open Government Licence v3.0, 2023. ISBN 978-1-5286-6068-6. (2025) [Online] Available at https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025 (Accessed March 2026)

[6] Ministry of Housing, Communities & Local Government. *National Planning Policy Framework.* London : Crown Copyright 2024, (2024). [Online] Available at https://www.gov.uk/government/publications/national-planning-policy-framework--2 (Accessed March 2026)

[7] Department for Environment, Food & and Rural Affairs. *Noise Policy Statement for England (NPSE).* London : Crown Copyright (2010) [Online] Available at https://www.gov.uk/government/publications/noise-policy-statement-for-england (Accessed March 2026)

[8] City of Doncaster Council. *Local Plan 2015-2035.* Doncaster : City of Doncaster Council (2021) [Online] Available at https://www.doncaster.gov.uk/services/planning/local-plan (Accessed March 2026)

[9] Rotherham Metropolitan Borough Council. *Rotherham Local Plan - Sites and Policies.* Rotherham : Rotherham Metropolitan Borough Council (2018) [Online] Available at https://www.rotherham.gov.uk/downloads/download/64/local-plan-sites-and-policies-documentation (Accessed March 2026)

[10] North East Derbyshire Local Plan 2014 to 2034, North East Derbyshire District Council (2021) [Online] Available at: https://www.ne-derbyshire.gov.uk/planning-and-local-plan/planning-policy-and-local-plan/development-plan#:~:text=The%20North%20East%20Derbyshire%20Local%20Plan%202014%2D2034%20was%20formally,the%20Peak%20District%20National%20Park. (Accessed March 2026)

[11] UK Government . Ministry of Housing, Communities and Local Government. Planning Practice Guidance on Noise. (2014). [Online] Available at: https://www.gov.uk/guidance/noise--2 (Accessed March 2026)

[12] British Standards Institution. *BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites. Noise.* s.l. : BSI, 2014. ISBN 978 0 580 77749 3. (2014) [Online] Available at https://knowledge.bsigroup.com/products/code-of-practice-for-noise-and-vibration-control-on-construction-and-open-sites-noise (Accessed March 2026)

[13] British Standards Institution. *BS 5228-2:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites. Vibration.* s.l. : BSI, 2014. ISBN 978 0 580 77750 9. (2014) [Online] Available at https://knowledge.bsigroup.com/products/code-of-practice-for-noise-and-vibration-control-on-construction-and-open-sites-vibration (Accessed March 2026)

[14] British Standards Institution. *BS 7385-2:1993 Evaluation and Measurement for Vibration in Buildings – Guide to Damage Levels from Groundborne Vibration*. BSI Standards Limited 1993 ISBN 0 580 22188 1 [Online] Available at https://knowledge.bsigroup.com/products/evaluation-and-measurement-for-vibration-in-buildings-guide-to-damage-levels-from-groundborne-vibration (Accessed March 2026)

[15] British Standards Institution. *BS 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound*. s.l. : BSI, 2019. ISBN 978 0 539 02069 4. [Online] Available at https://knowledge.bsigroup.com/products/methods-for-rating-and-assessing-industrial-and-commercial-sound (Accessed March 2026)

[16] British Standards Institution. *BS 8233:2014 - Guidance on Sound Insulation and Noise Reduction for Buildings*. s.l. : BSI Standards Limited 2014, 2014. ISBN 978 0 580 74378 8. [Online] Available at https://knowledge.bsigroup.com/products/guidance-on-sound-insulation-and-noise-reduction-for-buildings (Accessed March 2026)

[17] International Organization for Standardization. *ISO 9613-2 Acoustics - Attenuation of Sound During Propagation Outdoors - Part 2: Engineering Method for the Prediction of Sound Pressure Levels Outdoors.* Geneva : ISO 2024, 2024.[Online] Available at https://www.iso.org/standard/74047.html (Accessed March 2026)

[18] Highways England. *Design Manual for Roads and Bridges, LA 111 Noise and Vibration Revision 2.* London : Highways England, 2020. [Online] Available at https://www.standardsforhighways.co.uk/search/cc8cfcf7-c235-4052-8d32-d5398796b364 (Accessed March 2025)

[19] Department of Transport Welsh Office HMSO. *Calculation of Road Traffic Noise*. London: Crown Copyright 1988, 1988. ISBN 0 11 550847 3.

WHITESTONE
solar farm

Contact

Whitestone Net Zero Ltd

info@whitestonesolarfarm.co.uk

0800 688 9936