



Galileo 03 Ltd.

Mynydd Ty-talwyn Energy Park - Environmental Statement Volume III

Appendix 9.1: Scoping Direction Response

Project Reference: 663870

NOVEMBER 2025

RSK



Appendix 9.1 - Scoping Direction Response

This report has been prepared by RSK Acoustics on behalf of Galileo 03 Ltd (part of Galileo Empower UK Ltd) (hereinafter referred to as 'Galileo' or the 'Applicant').

The below section details the comments raised within the scoping direction document, reference number and the response from the applicant along with any further discussion and justification of each item identified within the scoping direction document (**ES Volume III, Appendix 1.2: Scoping Direction**).

ID.58 Study Area and Methodology

Comment	Response
ID 58 Study Area and Methodology 1. Bridgend County Borough Council (BCBC) do not agree with the proposed 3 km study area to inform the cumulative assessment. BCBC highlight that the Institute of Acoustics (IoA) 'Good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise' states that 'if the proposed wind farm produces noise levels within 10 dB of any existing wind farm/s at the same receptor location, then a cumulative noise impact assessment is necessary'. Therefore, the applicant will need to provide predicted noise levels for the wind farm and determine whether this proposal will add to the cumulative impact with other wind farms. 2. BCBC recommend a 5 km search area, with wind farms between the 3 km and 5 km zone only being ruled out if they do not meet the criteria in the IoA guidance. BCBC also advise that the assessment must be based on the consented noise levels for the existing wind farms, as opposed to the noise emission levels provided by manufacturers. 3. BCBC raise further concerns with the statements in the SR that smaller turbines do not need to be considered as part of the noise assessment, and that the noise assessment is dependent on the availability of data from other turbines. The applicant should refer to BCBC's detailed comments in appendix 1. 4. Neath Port Talbot Council's (NPTC) Environmental Health Officer (EHO) also request that the applicant liaises with them early in the process regarding the detailed methodology and to identify sites of interest in the study area.	1. The assessment of wind turbine noise is to be undertaken in line with both ETSU-R-97 and the IOA 'Good practice guide to the application of ETSU-R-97 for the assessment and rating of wind turbine noise'. The assessment will use the BCBC recommended 5 km search area. 1, 2 & 3. The assessment and cumulative assessment of wind turbine noise will refer to the consented noise levels of any existing wind farms. For consented, but not yet operational, wind farms, the noise levels will be obtained from publicly available planning documentation (e.g. Environmental Statement). 4 & 5. Consultation was undertaken with a Director and Principal Consultant from 24 Acoustics (acting on behalf of BCBC / NPTC) in 2024, which culminated in agreement that the baseline noise monitoring locations and data collected are suitable for assessment in line with ETSU-R-97¹ (2061688-RSKA-TN-002-(03) - MTT - Monitoring Installation dated 31 July 2024).

¹2061688-RSKA-TN-002-(03) - MTT - Monitoring Installation



Comment	Response
5. PEDW advises that the study area and methodology should be agreed through consultation with the LPA's EHOs. The above matters should be fully addressed, and the methodology should accord with best practice guidance. Full justification and rationale should be provided in the ES to support the assessment.	

ID.59 Study Area and Methodology

Comment	Response
ID 59 Monitoring Locations 1. NPTC's EHO advises that further information is required to understand the rationale of the number and location for the monitoring locations. They highlight that the assessment should focus on the sensitivities of receptors, and ensure the locations account for these receptors. BCBC also raise concerns with the distribution of monitoring locations, stating that the number of monitoring locations should be determined from the receptors and likely impact. 2. PEDW recommends that the applicant liaises with the LPAs in order to determine appropriate monitoring locations to fully inform the assessment. The justification for the monitoring locations selected should be set out in the ES.	1 & 2. Consultation was undertaken a Director and Principal Consultant from 24 Acoustics (acting on behalf of BCBC / NPTC) which culminated in agreement that the baseline noise monitoring locations and data collected are suitable for assessment in line with ETSU-R-97².

ID 60 Low Frequency Noise

Comment	Response
ID 60 Low Frequency Noise 1. NPTC's EHO and BCBC raise concerns with operational low frequency noise being scoped out at this early stage. NPTC's EHO states that the guidance referred to is not available, and as such further information is required to justify this matter being scoped out. BCBC state that the low frequency content of the noise from wind farms should be considered with octave band specific noise emission and propagation modelling. This assessment should be included in the ES.	1. Although Low Frequency Noise (LFN) can be audible under some conditions, studies have shown that LFN produced by wind turbines does not typically exceed levels from other common sources, such as road traffic noise³. More recent studies have identified that there is little evidence that LFN from wind turbines is unlikely to result in specific adverse effects or health outcomes beyond annoyance, as summarised within the 2023 Department for

²2061688-RSKA-TN-002-(03) - MTT - Monitoring Installation

³ Infrasound and low frequency noise from wind turbines: exposure and health effects, Karl Bolin et al 2011 Environ. Res. Lett. Available at: <https://iopscience.iop.org/article/10.1088/1748-9326/6/3/035103>



Comment	Response
2. PEDW therefore advises that low frequency noise is scoped in to the ES. Should, through consultations with EHOs and additional survey work, there be satisfactory justification for low frequency noise being scoped out, this must be set out in the ES.	Business, Energy and Industrial Strategy report prepared by WSP⁴. A previous study was undertaken on behalf of the Department of Trade & Industry (DTI)⁵ to investigate whether LFN emissions from wind turbines had given rise to health effects to neighbours of wind farms in Cumbria, North Wales and Cornwall, and summarised that: ▪ Wind turbine noise may result in internal noise levels (LFN) within a dwelling that is just above the threshold of audibility, however it was always lower than that of local road traffic noise; and ▪ The common cause of complaint was not associated with LFN, but the occasional audible modulation of aerodynamic noise especially at night. A collective of articles addressing health effects and LFN related to wind turbines found that⁶: <i>“At present, a specific health condition or collection of symptoms has not been documented in the peer-reviewed, published literature that has been classified as a ‘disease’ caused by exposure to sound levels and frequencies generated by the operations of wind turbines. It can be theorized that reported health effects are a manifestation of the annoyance that individuals experience as a result of the presence of wind turbines in their communities.”</i> The potential for adverse impacts will be discussed in the ES based on the conclusions of existing studies on the prominence of LFN from wind turbines.

⁴ Report for UK government: a review of noise guidance for onshore wind turbines, Department for Business, Energy and Industrial Strategy, prepared by WSP (2023). Available at: <https://www.wsp.com/en-gb/insights/wind-turbine-noise-report>

⁵ The measurement of low frequency noise at three UK wind farms, Department of Trade & Industry (DTI) (2006). Available at: <https://webarchive.nationalarchives.gov.uk/ukgwa/20090609065010/http://www.berr.gov.uk/files/file31270.pdf>

⁶ Roberts JD, Roberts MA. Wind turbines: is there a human health risk? J Environ Health (2013) 75:8–17



ID 61 Noise and Vibration from Construction Activities Associated with the Wind Farm Infrastructure

Comment	Response
ID 61 Noise and Vibration from Construction Activities Associated with the Wind Farm Infrastructure 1. BCBC raise concerns with this matter being scoped out. The SR states that there are large separation distances from receptors. BCBC query what these distances are, but also state that the predicted construction noise levels at residential receptors should still be provided. This will determine if further mitigation or noise monitoring is required during the construction phase. 2. BCBC highlight that this aspect has been scoped in for the solar and BESS parts of the development and should also be scoped in for the wind farm element. PEDW advises that noise and vibration from construction of the wind turbines is scoped in to the ES.	1 & 2. Construction noise and vibration will be undertaken in accordance with both BS 5228-1: 2009 + A1:2014 and BS 5228-2: 2009 + A1:2014. The assessment of noise and vibration will be undertaken at the nearest sensitive receptors to the construction activities.

ID 62 Amplitude Modulation (AM)

Comment	Response
ID 62 Amplitude Modulation (AM) 1. BCBC raise concerns with this matter being scoped out at this stage. The justification in the SE [SR] appears to be based on Renewable UK research from 2013. BCBC highlight a more recent study, commissioned by the Department of Energy and Climate Change in 2016, which includes a method of quantification of the level of AM and any appropriate penalty. BCBC state that consideration should be given to AM and the indicators set out in the guidance, this can inform the justification in the ES to scope out (if appropriate) this matter. 2. PEDW therefore advises that there is inadequate information provided in the SR to scope out AM. The applicant should liaise with the LPAs on the supporting information to be provided with regards to amplitude modulation and agree a methodology for this assessment. The approach should be set out in the ES.	1 & 2. No standardised methodology exists to predict AM occurrence with certainty. Reliable predictions of AM in the context of development planning and noise assessment guidance are unlikely to be practically feasible in the near future⁷. Acoustic experts have proposed planning conditions to regulate AM, but legal input is required to ensure compliance with policy guidance. Qualitative discussion of the potential effects resulting from AM will be included within the ES with appropriate monitoring and control measures proposed (see ES Volume III, Appendix 9.2: Legislation, Policy and Guidance). This can include the example planning condition proposed by a group of IOA members in 2017⁸ as a starting point for the planning condition mechanism.

⁷ Report for UK government: a review of noise guidance for onshore wind turbines, Department for Business, Energy and Industrial Strategy, prepared by WSP (2023). Available at: <https://www.wsp.com/en-gb/insights/wind-turbine-noise-report>

⁸ McKenzie, A, Cand, M, Bowdler, D, Jiggins, M, Irvine, G, Reid, M, Perkins, R, Lotinga, M, Hayes, m & Bullmore, A, 2017. A planning condition for wind turbines. Acoustics Bulletin, 42 (6), 56-60. Available at:

https://www.researchgate.net/publication/321965960_A_planning_condition_for_wind_turbines



