



An tOifig Náisiúnta um Sláinte Chomhshaoil
Feidhmeannacht na Seirbhíse Sláinte,
Urlár 2, Teach na Darach, Ascaill na Teile
Páirc na Milaoise, An Nás, Co. Chill Dara.

National Office for Environmental Health Services
2nd Floor, Oak House, Lime Tree Avenue
Millennium Park, Naas, Co. Kildare
Eircode: W91KDC2

6th December 2024

NEHS ID 4353

Bord Pleanála Case reference: PA08.321029

10 year planning permission for wind energy development consisting of 17 no. wind turbines and related works

Located on land at Cummeennabuddoge (County Kerry), Clydaghroe (County Kerry), Glashacormick (County Kerry), Cummeenavrick (County Kerry), and Caherdowney (County Cork). (www.cummeennabuddogeplanning.ie)

The following are the observations of the National Environmental Health Service (NEHS) on the above application.

The following HSE stakeholders were notified of the application on the 11th November 2024:

- HSE Emergency Planning
- HSE Estates
- Director of National Health Protection
- Community Health Organisation

The HSE is a statutory consultee under Article 28 of the Planning and Development Act 2000 (as amended) and has a remit to make observations on a planning application accompanied by an EIAR with regard to any likely significant effects on Public and Environmental Health. The NEHS can make observations on any planning application as a statutory consultee.

The objective of any observations by the NEHS are to inform the Planning Authority on any likely significant effects on Public and Environmental Health and give an opinion on any proposed mitigation to protect Public and Environmental Health. Any observations made are to inform and assist the decision making of the Planning Authority in the planning process.

This submission is the observations and comments of the NEHS based on the submitted planning application and the accompanying Environmental Impact Assessment Report (EIAR). The NEHS does not carry out any independent environmental monitoring or validation of any measurements or data reproduced in an EIAR.

Scoping of the Environmental Impact Assessment (EIA)

The applicant made an informal scoping request to the HSE in 2021. A response to this request was made by the NEHS dated 13th October 2021 (ref ID1939). This response is reproduced in scoping section of the EIAR.

The NEHS is satisfied that the areas identified in the scoping response dated 13th October 2021 that, in the opinion of the NEHS, should be included for assessment in the EIA have been included and reported in the EIAR.

The NEHS is also satisfied that reference has been made to the correct general guidance for carrying out the EIA and the content of the EIAR.

The following additional observations are made:

1. The EIAR clearly identifies the scoping recommendations made by the NEHS and links them to the EIA. This can be seen in Appendix 2.2.
2. A key scoping recommendation by the NEHS is a dedicated website for the proposed development with planning documents and environmental assessments available in an accessible format. The dedicated website at <https://cummeennabuddogeplanning.ie/> achieves this objective.
3. It is the experience of the NEHS that EIARs can be challenging for members of the general public to navigate due to their size and complexity. The Non-Technical Summary (NTS) is therefore important to enable access to the information in a non-technical format. It is the opinion of the NEHS that the NTS is an accurate summary of the likely significant effects and the proposed mitigation and residual impacts.
4. The separation of the EIAR into chapters on the dedicated website facilitates access to the assessments and has to be welcomed as a good model for presenting the findings in the EIAR.
5. Another key recommendation was early community engagement in the process. A report on this is included in volume 4 of the EIAR. It is important that this process is not just consensus building, but can demonstrate a link between the outcomes of the engagement and the design of the project. This seems to have been achieved.

Criteria for Consideration of Likely Significant Effects on Public Health

The NEHS considers likely significant effects on Public Health as per the EPA issued National Guidance (known as the EIAR Guidance): ***Guidelines on the information to be contained in Environmental Impact Assessment Reports***, 2022

https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Particularly section 3 of the EIAR Guidance on Human Health which is reproduced below:

Human Health

The recitals to the 1985 and 2011 Directives refer to 'Human Health' and include 'Human Beings' as the corresponding environmental factor. The 2014 Directive calls this factor 'Population and Human Health'.

While no specific guidance on the meaning of the term Human Health has been issued in the context of Directive 2014/52/EU, the same term was used in the SEA Directive (2001/42/EC). The Commission's SEA Implementation Guidance states 'The notion of human health should be considered in the context of the other issues mentioned in paragraph (f)'. (Paragraph (f)⁴⁷ lists the environmental factors including soils, water, air etc). This is consistent with the approach set out in the 2002 EPA EIS Guidelines where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water or soil, namely:

'The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment.'

In an EIAR, the assessment of impacts on population & human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.. The Advice Notes provide further discussion of how this can be addressed.

Assessment of other health & safety issues are carried out under other EU Directives, as relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives⁴⁸. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them.

The NEHS therefore considers likely significant effects within a population and Human Health context that uses a source – pathway- receptor model, based on emissions through environmental media and population exposure. The exposure of populations, if any, is then considered against recognised health protection criteria.

Whilst EIAR guidance recognises the requirement to identify sensitive receptors within the assessment process, the Planning Authority should be clear that it is within a Population Health approach.

A Population Health approach to the sensitivity of receptors would not consider individual specific sensitivity of a human receptor, but the sensitivity of the established land use or service provision. For example, a school would be considered a sensitive receptor within a Population Health approach, but an individual student who was particularly sensitive to noise attending the school would not be specifically considered in the assessment criteria. But, a health care facility that provided services for people with recognised noise sensitivity would be considered in its entirety as a particular noise sensitive location.

The Population Health approach therefore has important differences in how likely significant effects on Population and Human Health are considered in EIA. The assessment should consider established land development and use and service provision and activities within communities and not individual members of communities.

It is recommended that the Planning Authority also follows this method when consider Public Health in their decision making.

Consideration of Chapter 5 Vol 2 of EIAR – Population and Human Health

The NEHS notes table 5.1 which specifically identifies the content of the scoping submission made by the NEHS and how it has been addressed in the Chapter.

The assessment of likely significant effects on population and human health has to be a proportionate assessment and any consideration of the adequacy of it should be considered in that context.

The NEHS notes section 5.5.4 of the Chapter that refers to the other Chapters in the EIAR for likely significant effects from emissions into the environment. This is the preferred methodology identified in current guidance referenced in the NEHS scoping submission and identifies a source, pathway, receptor model in assessing likely significant effects on Population and Human Health. The residual impact can then be considered against a recognised health protection standard.

Assessing the wider determinants of health and any opportunity for health gain is project specific and has been consider in Community Engagement and in Chapter 5.

Project Specific Guidance for Wind Energy Development

The current Guidelines for Wind Energy Development are: Wind Energy Development Guidelines (2006) <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

It is recognised that the nature of wind energy development has significantly changed since the publication of these Guidelines. Particularly the size of the turbines and the proximity to centres of populations and the cumulative effects with other wind energy development. There has also been substantial increases in the body of knowledge around the likely significant effects of the operation of wind farm development on Population Health, in particular around the characteristic of the noise emissions and health effects of shadow flicker.

A revision of the 2006 GWED commenced in 2013 and Draft Revised Wind Energy Development Guidelines were issued in December 2019.
<https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/>

New guidance has not been issued since the 2006 Guidance.

The Revised WEDG 2013 states 'the revised guidelines will provide greater consistency of approach in planning for onshore wind energy development, as well as providing greater certainty and clarity to the planning system, to the wind industry and to local communities'

The NEHS is aware of the High Court decision in ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024***, and details of the judgement. The judgement that the noise from the wind farm was a Private Nuisance is a predominately health based assessment, in that the elements that were deemed to create the nuisance were directly related to health effects on the complainants. It is the understanding of the NEHS that assessment of compliance with health protection conditions set in the consent process was not a material consideration in the judgement. The judge did state that she could consider nuisance irrespective of any compliance with consent conditions, particularly in the absence of up to date national policy and guidance in the area. The Judgement also states the revised Draft Guidance has been withdrawn. There is no public indication this is the case. It is still on the Department's website as of the date of this submission.

Nuisance from noise is fundamentally a subjective assessment based on 'reasonable' perception and reaction of the effects of the noise exposure. This perception and reaction depends on situational specific conditions and land use. This was recognised in the Judgement after 51 days of evidence and consideration of the specific facts. It also the understanding of the NEHS that the Judgement did not make an order as to the level or characteristic of the noise that would abate the nuisance.

If the Planning Authority are now considering that they are under a duty to incorporate the likelihood of a Private Nuisance into their decision making, then they should consider the judgement in ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024***. This judgement identified, in the absence of Irish guidance, the usefulness of UK guidance in the investigation of wind farm noise as a statutory nuisance. This is, of course, a reactionary methodology where specific noise exposure is known and not a predictive methodology for the likelihood of a Private Nuisance.

<https://assets.publishing.service.gov.uk/media/5a795184e5274a3864fd5f82/pb-13584-windfarm-noise-statutory-nuisance.pdf>

Likely Significant Effects from Noise and Vibration

The NEHS has considered chapter 13 Vol 2 of the EIAR and makes the following observations:

Predicted Operational Noise

- a) The 2006 Guidelines include guidance on how to derive noise limits for daytime and night-time periods, which can be summarised as: daytime limits take account of existing background noise levels and include a fixed limit of 45 dB, or background + 5 dB, whichever is the greater, except in low background noise environments where a fixed minimum limit in the range 35-40 dB should be considered.
- b) This criteria is therefore that turbine noise at noise sensitive locations should not exceed for daytime periods:

40 dB(A) where background noise levels are below 30 dB; and, 45 dB(A) or background noise plus 5 dB, whichever is the greater, where background noise levels are greater than 30.

The EIAR states on page 19 of Chap 13 vol 2: *Where the limits are set relative to background noise levels, the background noise must not contain any contribution from existing wind turbines, and although not expressly stated, it is assumed that the relevant noise limits apply to cumulative noise from all wind turbines in the vicinity.* The NEHS concurs with this statement in that noise exposure should be the cumulative noise from all noise sources.

- c) This criteria can potentially see a predicted increase of up to 15 dB(A) change in the noise environment as compliant with the criteria. Any change in the noise environment of this magnitude is highly likely to cause complaints and/or nuisance. **BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound** identifies an increase of 10 dB above existing rated noise levels will have a significant adverse impact and is highly likely to cause complaints. It is noted that the predicted noise exposure does not meet these levels of increase above background levels except at NSL 153 and NSL 65.
- d) The EIAR states in Chapter 13 Vol 2 page 21: *For the purposes of this noise chapter significance is assessed in terms of whether the noise limits are met. For properties where noise from the Proposed Development is below the remaining noise budget noise limits, noise is considered to be not significant. Where noise exceeds these noise limits, the noise impact is considered to be significant. The noise limits which apply to the Proposed Development are derived at 13.7.3 according to the approach described at 13.5*
- e) The EIA process specifically requires the assessment to be 'the likely significant effects' and if the knowledge on an evaluation criteria of significance has developed since the publication of a guidance, then it is reasonable and correct to use the developed knowledge base in assessing the significance of any effect. This is particularly relevant to the protection of Public Health. Statutory Guidance issued under the Planning Development Act 2000 (as amended) has to be considered by the Planning Authority when making a decision, but it is not a consideration that precludes all other evidence and knowledge.
- f) Tabulation of the predicted change in the noise environment from the proposed development and the cumulative change in the original baseline noise environment before any wind farm development in the area would be the most informative way of assessing the likely effect of operational noise.
- g) Whilst the NEHS would consider the most appropriate criteria for assessing significance of the predicted noise would be consideration of the **ENVIRONMENTAL NOISE GUIDELINES for the European Region, 2018**, which is a health protection standard, the predicted noise exposure levels are of a level that this would not be considered requiring this assessment, except at one sensitive receptor R153.

This opinion is based on the data in table 13.16 and 13.17 in chapter 13 of vol 2 of the EIAR page 27 and 28.

The 2018 WHO Guidance set health protection levels from environmental noise. <https://iris.who.int/bitstream/handle/10665/279952/9789289053563-eng.pdf?sequence=1>

The NEHS notes the curtailment strategy in 13.8.2 to ensure the noise exposure at NSL 65 and NSL 153 is below the exposure limit criteria set in the 2006 Guidance.

Construction Noise

The NEHS considers the most effective mitigation for the protection of Public and Environmental Health from noise during construction is limiting hours of operation for noisy activity such as blasting. The NEHS notes the distance between turbine construction activity and NSL. With only one NSL closer than 1km from turbine construction. From the draft CEMP in Appendix 4:

3.3 Working Hours

The proposed normal hours of operations for construction activity are between 07:00 - 19:00 Monday to Saturday, with deliveries on a Saturday and during public holidays restricted to the hours of 07:00 to 14:00. During the installation phase, there may be a requirement for extended working hours as some critical elements of installation cannot be stopped once started such as concrete pouring, this will be agreed in advance with the Planning Authority.

The NEHS would consider this adequate protection of Public and Environmental Health during the construction phase. Blasting activities should not be carried out early morning or evening times.

Shadow Flicker

The NEHS has considered Chapter 13 of the EIAR Vol 2 on the likely significant effects from shadow flicker.

The draft 2019 Guidelines proposed a planning condition of:

The adopted DoEHLG 2006 Guidelines are currently under review. The Draft DoEHLG 2019 Guidelines recommend local planning authorities and/or An Bord Pleanála impose conditions to ensure that:

"no existing dwelling or other affected property will experience shadow flicker as a result of the wind energy development subject of the planning application and the wind energy development shall be installed and operated in accordance with the shadow flicker study submitted to accompany the planning application, including any mitigation measures required."

The Draft DoEHLG 2019 Guidelines are based on the recommendations set out in the 'Proposed Revisions to Wind Energy Development Guidelines 2006 - Targeted Review' (December 2013) and the 'Review of the Wind Energy Development Guidelines 2006 - Preferred Draft Approach' (June 2017).

Chapter 13 identifies the available technology to mitigate against shadow flicker.

In the interest of the protection of Public Health the proposed condition in the 2019 Draft guidance should be implemented if consent is given for the development. The technology has advanced since the publication of the 2006 Guidance and it is a reasonable health protection measure to be included in any conditioning of a wind farm development. The mitigation measures that will eliminate exposure to shadow flicker are identified in the EIAR. This mitigation should be implemented irrespective of whether the current guidance is updated.

Protection of Drinking Water Sources

The NEHS has considered Chapter 11 Vol 2 of the EIAR – Hydrology. In particular section 11.3.14 Drinking Water. It is noted that the only drinking water source identified is 5km down-stream from the site. It's not clear if Private Wells have been included in the consideration for drinking water sources. The section states:

11.3.14 Drinking Water

Drinking water datasets available from the EPA identified a section of the River Flesk (Flesk (Kerry)_040) approximately 5 km downstream from the Proposed Development as a drinking water source (Article 7 Abstraction for Drinking Water). No other waterbodies designated as drinking water sources (including Group Scheme Source Protection Areas or Public Supply Source Protection Areas) were found to be hydrologically connected to the Proposed Development.

Schedule of Mitigation – Chapter 19 Vol 2 EIAR

The schedule of mitigation in Chapter 19 is detailed and comprehensive. The NEHS has considered the schedule table in the context of the protection of Public and Environmental Health. At this stage, the NEHS has not identified any additional mitigation measures required to Protect Public and Environmental Health during the construction and operational phase of the proposed development.

Construction and Environmental Management Plan (CEMP)

The NEHS has considered the draft CEMP in appendix 4 and the schedule of mitigation for the construction phase.

The NEHS is satisfied there will be adequate protection of Public and Environmental Health during the construction phase if all the mitigation measures are implemented in full. The following recommendations are in the interest of the protection of Public Health:

- a) All drinking water and water used for the preparation of food in the temporary construction compounds should meet the requirements of. **S.I. No. 99/2023 - European Union (Drinking Water) Regulations 2023**

- b) All waste water should be contained and taken off site to a licensed treatment facility, There should be no direct emission to ground or surface water of any foul waste water,
- c) The NEHS notes the commitment to restrict the storage height of excavated peat to below 1.5m. This is an important measures to protect from any accidental slippages and contamination of ground and surface water during the construction phase.
- d) The NEHS has considered section 4.7 of the CEMP. This section covers proposed mitigation measures and the design of the site drainage. The main objective is the protection of surface and ground water during the construction phase. The NEHS is satisfied that if all the mitigation identified in this section is implemented in full there will be adequate protection of ground and surface water during the construction phase. The NEHS notes the proposed water quality monitoring to validate construction controls are effective.
- e) The NEHS has considered section 4 of the CEMP on dust control and noise control during the construction phase and are satisfied that if all the mitigation identified in this section is implemented in full there will be adequate protection of Public and Environmental Health during the construction phase, with regard to the control of dust and noise.


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