

OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Ronan Gilligan

Dangan

Tuam

Galway

To: An Coimisiún Pleanála

64 Marlborough Street

Dublin 1

D01 V902

Date: 08 November 2025

Re: Observation/Submission to proposed wind energy development at Cooloo Wind Farm

Location: Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter, Lissavally, Slievegorm - Co. Galway

Applicant: Neoen Renewables Ireland Limited

Dear Sir/Madam,

I live in Polladooey and my house is 1km from proposed turbine T1. I am greatly concerned about the impact this development will have on our area and my home. Also living in my house is my mother, my family have lived in this area for generations.

I work on our farm next to our house and our field is 365 m from proposed turbine T1, as this is my place of work i am greatly concerned about the impact this development will have on our livestock and our ability to continue to enjoy farming this land in peace.

I also depend on the Barnaderg Gortbeg Water scheme as the water supply for my house and I fear the construction of this project will pollute our water supply.

This project will also prevent me from building my own house on our land in the future as it is likely the Windfarm development will restrict getting planning permission on my land due to its proximity.

I am greatly worried about the health impacts that infrasound noise and shadow flicker will have on our home and how this will impact our wellbeing and general health. I don't believe enough consideration has been given to these impact on local people.

I strongly urge An Coimisiún Pleanála to reject this windfarm development for these reasons and the reasons outlined below.

Barnaderg Gortbeg Group Water Scheme

I use the water from Barnaderg Gortbeg Group Water Scheme as my main source of drinking water for my household. The water is of excellent quality and I am very concerned that pollution of various types such as silt, sediment and other contaminants will enter the water source, causing me and my family harm. With the location of two Turbines within the Source Protection Area (SPA) I believe the Cooloo Windfarm should not be granted permission whatsoever, especially in such a highly karstified and hydrologically sensitive area.

Right to Peaceful Enjoyment of Property

Article 1, Protocol 1 of the European Convention on Human Rights (ECHR) protects every individual's right to the peaceful enjoyment of their possessions. It provides that: "Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law."

Granting permission for this wind farm development would seriously interfere with my right to the peaceful enjoyment of my property as a landowner and farmer. My land is not only my livelihood but also my home and heritage, and its value lies in its usability, productivity, and tranquillity. The construction and operation of large-scale wind turbines would bring constant noise, vibration, and shadow flicker, making it extremely difficult to work or live on the land without disruption.

During the lengthy construction period, the constant movement of heavy machinery, road congestion, and elevated noise levels would disturb livestock, damage rural roads, and make normal farm operations significantly harder to carry out. Once operational, the turbines would permanently alter the landscape, impacting both animal welfare and the environment in which I work daily. The cumulative effects of noise, flicker, and visual dominance would deprive me of the peaceful enjoyment and practical use of my land.

Such disruption cannot reasonably be regarded as proportionate or justified in the public interest, and therefore would constitute a breach of the protections guaranteed under Article 1, Protocol 1 of the ECHR.

Property Devaluation

A study from the University of Galway and international research indicates that homes within 1 km of wind turbines experience adverse effects on property value, with reductions of up to 14.7%. My home falls within this range, and I am deeply concerned about the financial and emotional impact this will have on my family and our future prospects. The planning application does not appear to address or mitigate this issue.

<https://www.universityofgalway.ie/media/researchsites/ceris/files/WP-2023-01.pdf>

Noise

The proposed Cooloo Wind Farm should be refused planning permission, citing the Irish High Court case *Byrne & Moorhead v ABO Energy* [2025] IEHC 330, in which wind turbine noise was legally recognized as a private nuisance, leading to the permanent shutdown of turbines in County Wexford. The objection highlights that the Cooloo proposal fails to address proven low-frequency and amplitude-modulated noise impacts similar to those measured in the Wexford case, where sound levels far exceeded safe limits and caused serious disturbance to residents living over a kilometre away. The Cooloo project's reliance on outdated ETSU-style noise standards, which disregard low-frequency and tonal effects, is therefore deemed inadequate to protect public health and residential amenity.

The proposed turbines at Cooloo—significantly larger than those involved in the Wexford case—are likely to generate even stronger low-frequency noise that travels farther and fluctuates more intensely under local atmospheric conditions. This increases the risk of nuisance and potential legal liability for both developers and planning authorities. Ireland's 2006 wind energy guidelines are outdated and fail to reflect modern

scientific understanding of turbine acoustics. Until revised national standards are adopted, approving large-scale wind farms under obsolete criteria would be unsafe and contrary to the public interest. Planning permission should therefore be refused due to the clear and foreseeable risk of harm to residential amenities, the inadequacy of current noise controls, and the legal precedent confirming wind turbine noise as a substantial nuisance.

Shadow Flicker

Chapter 5 of the EIAR ('Population and Human Health') states that the nearest residential property is 720 metres away from the closest wind turbine (T8). However there is no mention of a house (Eircode H53 FF64) that is 530 metres away from Turbines 4 and 5 and 600 metres away from Turbine 8. This property is not accounted for at all in the EIAR.

The Wind Energy Guidelines of 2006 advise a setback distance between a wind turbine and a house of 500 metres. These guidelines are almost 20 years old and outdated.

The 2019 Draft Wind Energy Development Guidelines suggest a mandatory minimum setback distance of 500 metres between a wind turbine and the nearest residential property, and 4 times the tip height, whichever is greater.

Shadow flicker, caused by the rotating blades of wind turbines casting intermittent shadows, can have a significant impact on nearby residents. Prolonged exposure to these flickering shadows can cause visual discomfort, headaches, and even trigger migraines in susceptible individuals. Adequate setback distances and screening measures should be implemented to minimize the potential health effects associated with shadow flicker.

Farming

I am deeply concerned about the impact this proposed windfarm will have on the farmers in Barnaderg, Cooloo, and the surrounding areas. Many of these are full-time and part-time dairy and dry-stock farmers, with holdings of varying sizes, and their livelihoods depend directly on the health and productivity of their animals. Farming in this area is not just a way to make a living—it is a way of life, a source of pride and satisfaction. The presence of shadow flicker, excessive noise, and visual intrusion from turbines would seriously disrupt this, affecting both our work and our well-being.

Scientific research underscores this concern. The study - 'Importance of Noise Hygiene in Dairy Cattle Farming – A Review (Dimov, Penev & Marinov, 2023)' highlights that exposure to noise and vibration—even from sources like a milking parlour—can reduce milk yield, lower milk quality, and stress the animals. Turbine noise represents a new, unfamiliar source that could have similar or worse effects on livestock.

Additionally, the developer has not addressed the practical realities of farming life. Farmers rely heavily on the local roads for moving cattle and accessing their land every day. These essential activities could be disrupted by construction traffic, turbine maintenance, or other project-related impacts, further jeopardizing livelihoods. For these reasons, I strongly object to the proposed windfarm.

Reference:

Dimov, D., Penev, T., and Marinov, I. (2023) 'Importance of Noise Hygiene in Dairy Cattle Farming – A Review'. Featured Position and Review Papers in Acoustics Science.

Available at: <https://www.mdpi.com/2624-599X/5/4/59>.

Biodiversity Impact - Earthworms

I object on the grounds that the Environmental Impact Assessment fails to address the impacts of wind

turbine-induced vibrational noise on soil biodiversity and ecosystem function, particularly earthworm populations.

Recent peer-reviewed research by Velilla et al. (2021, *Oikos*, 130(7), 1033–1047) demonstrates that wind turbines generate continuous low-frequency vibrations (< 500 Hz) that travel considerable distances through soil. Key findings include:

- Vibrational noise decreased by only 23 ± 7 dB over 200 metres, meaning measurable vibration extends well beyond turbine bases
- Earthworm abundance declined by approximately 40% near turbines compared to sampling points further away
- Soil compaction and crop type were ruled out, confirming vibrational noise was the primary cause
- The impact is body-size-dependent, especially harmful to earthworms and other large soil invertebrates

Earthworms are critical "ecosystem engineers" essential to soil health and agricultural productivity. A 40% decline in their populations can lead to:

- Reduced soil aeration and water infiltration, increasing flooding and erosion risks
- Disruption of nutrient cycling and carbon sequestration, undermining soil fertility and climate regulation
- Deterioration of soil structure and microbial balance, impacting crop performance and long-term land viability

These impacts are especially concerning in productive agricultural soils. The Cooloo site shares characteristics with the farmland studied by Velilla et al. (2021) — organically managed, rural, and composed of active agricultural soils.

The Environmental Impact Assessment submitted for Cooloo does not address subsurface vibrational noise or its potential to degrade soil ecosystems. This represents a significant omission in the assessment of environmental and agricultural impacts.

I respectfully request that An Coimisiún Pleanála require:

- Comprehensive assessment of soil-borne vibrational noise impacts
- Evaluation of effects on soil macrofauna, especially earthworms
- Protective buffer zones of at least 200–250 metres from turbine bases to high-value agricultural soils
- Vibration-dampening measures in turbine design and foundations
- Soil biodiversity indicators in post-construction monitoring

Reference:

- Velilla, E., Collinson, E., Bellato, L., Berg, M.P., & Halfwerk, W. (2021). Vibrational noise from wind energy turbines negatively impacts earthworm abundance. *Oikos*, 130(7), 1033–1047.
<https://doi.org/10.1111/oik.08166>

Road disruption during construction

I wish to object to the proposed development on the grounds of significant traffic and road safety impacts during construction, particularly in relation to abnormal load deliveries. The Traffic Management Plan (Appendix 15-2) lacks essential detail, including the number, timing and routing of heavy goods and turbine loads, and commitments to off-peak scheduling. Without clear and enforceable mitigation, there is a risk of damage to narrow rural roads, verges and drainage, along with conflicts between construction vehicles, farm traffic and school transport. No robust plan has been presented for road strengthening, maintenance or reinstatement. The absence of detailed community-specific measures leaves local access, amenity and safety inadequately protected. Until comprehensive information and binding commitments are provided, the proposal represents an unacceptable risk to road infrastructure and rural community wellbeing. Having roads closed for a combined 210 days (at a minimum) is unacceptable. It is also unacceptable for locals to have diversions of up to 13.7km per journey for the duration of this project.

Visual Impact

The proposed turbines would be highly intrusive and visually dominant, overwhelming the existing rural character of the local landscape. Their visibility from multiple vantage points would transform a natural and agricultural setting into an industrial-scale development.

The proposal is out of scale with the surrounding environment. The turbines' extreme height and size would cause visual clutter and a loss of scenic amenity, remaining visible even at long distances and creating continuous visual intrusion.

When combined with existing or approved wind farms in the region, this development would lead to visual saturation and skyline dominance, further eroding the landscape's character and reducing its recreational value.

The developer's visual impact assessment understates the visibility and significance of the turbines. Photomontages appear selective and fail to represent the true extent of visual intrusion likely to be experienced by residents and visitors.

The proposal would diminish the rural amenity, tranquillity, and identity of the local region. It threatens the area's sense of place and the quality of life for residents who value the natural and agricultural landscape.

The local wind farm's size and visual impact are excessive and inconsistent with the character of the area. While supporting renewable energy, developments must respect the local landscape — this project does not. The proposal should therefore be refused on the grounds of unacceptable visual and landscape impacts.

Conclusion

In light of the serious concerns outlined above I respectfully urge An Coimisiún Pleanála to refuse permission for this development. The proposal is not compatible with the principles of proper planning or sustainable development and would have lasting negative effects on local residents, farmers, and the wider community. I therefore strongly object to this proposal and ask that it be refused in full.

If permission is not refused outright, I request that an oral hearing be held so that local residents, farmers, and the wider community can have our say on the impacts of this development.

Yours Sincerely,



Name: Ronan Gilligan
Date: 08 November 2025