

# OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Thomas John Burke

Ardawarry

Barnaderg

Tuam

Galway

To: An Coimisiún Pleanála

64 Marlborough Street

Dublin 1

D01 V902

Date: 14 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 have a strong community spirit and I'm involved in GAA locally. I'm concerned that in the future people won't want to live in the area and the community will disappear as well as the strong football heritage of Killenerin. I have kids in school in Barnaderg and I'm worried that a reduction in the population will mean the local school will lose teachers. In terms of football there are just enough numbers to form a team and this will have a negative on the strong community spirit in Barnaderg. My family farm where my mother grew up is within 1.5km of T6 and I'm concerned that my children won't be allowed to build a home there in the future as currently in the news some wind farm companies have objected to planning adjacent their development. This impacts my children's future and right to live in the area.

## **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 karsified and hydrologically sensitive area.

### **Right to Own/Transfer Property**

Article 43.1.2 of Bunreacht na hÉireann provides that “the State accordingly guarantees to pass no law attempting to abolish the right of private ownership or the general right to transfer, bequeath, and inherit property.” Granting permission for this wind farm development would effectively undermine this constitutional protection. Landowners and farmers within the affected area would face significant restrictions, as land situated near turbines would become unsuitable for residential development. This would prevent families from transferring land for the purpose of building homes for future generations, thereby eroding their practical rights of ownership and inheritance.

Furthermore, Article 43.2.1 acknowledges that the exercise of property rights must be regulated by the principles of social justice. However, this proposed development cannot be regarded as socially just. It disproportionately burdens local residents while providing little to no direct benefit to the community. Those of us living in the area would experience substantial and lasting impacts — including increased traffic and road closures during construction, ongoing noise pollution, shadow flicker, and significant visual intrusion on our landscape. In addition, there remains insufficient scientific evidence to conclusively demonstrate that large-scale wind farms pose no long-term health risks to nearby residents. In these circumstances, permitting this development would be neither fair nor consistent with the principles of social justice recognised under Article 43.

### **Property Devaluation**

It is fair to surmise that people will not want to live near an industrial wind farm. There is growing evidence of loss of value and depreciation in the marketability of houses which are located near wind farms. The knock-on effect is that people will not move to the area or the local schools, and the community will wither. Rural Ireland still has a strong thriving support network of neighbours and community which will fundamentally be put at risk by imposing an industrial wind farm in the midst of 400 homes.

### **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.

## **National Schools**

The presence of wind turbines near schools can have a range of impacts on students, staff, and the overall learning environment. Wind turbines produce both audible noise and low-frequency infrasound, which can be noticeable inside buildings, which can cause a distraction. This constant distraction will interfere with children's attention and overall cognitive performance, making it more difficult for students to focus on learning.

- Cooloo NS is 1.59km away from the nearest wind turbine.
- Brierfield NS is 1.35 km away from the nearest wind turbine.
- Barnaderg NS is located approximately 3.49 km from the nearest wind turbine.

Shadow flicker caused by rotating turbine blades can create intermittent light in classrooms, which can be distracting and, in some cases, uncomfortable or stressful for children. The noise and shadow flicker will also greatly impact on the children in the school who have an additional need. There is a lack of research to state the impact on these children.

In addition to the above, during the construction phase and while laying the cabling, the roads will experience increased traffic and road closures. This will impact children travelling to and from school. While the severity of these impacts depends on distance from the turbines, it is clear that wind turbines in close proximity to schools have the potential to disrupt learning, reduce student wellbeing, and interfere with the overall educational experience.

## **Barnaderg National School**

Barnaderg National School is located approximately 3.49 km from Turbine No 1.

The turbines being this close to the school will no doubt have an impact on the education of the children in Barnaderg NS. The school will suffer from noise pollution and infrasound. In addition to this, during the construction phase and while laying cabling the roads to and from the school will be impacted by road closures, traffic, additional noise and dust. Again, all of this will impact on the children of the school.

I am also concerned that if planning permission is granted less people will be moving to or building in the area of Barnaderg. This will lead to fewer children in the community and may lead to the school losing teachers, and ultimately the school closure.

## **Farming**

There are dairy and dry-stock farmers in Barnaderg, Cooloo and the surrounding areas, both full-time and part-time. Holdings vary in size. Many of these farmers depend on their livestock performing well in order to pay their bills. Also, those who are farming in the area enjoy the work they do, in the absence of shadow flicker, noise or visual pollution. If this development is granted their livelihoods will be impacted.

The 'Importance of Noise Hygiene in Dairy Cattle Farming – A Review' (Published November 1st of 2023 by Dimo Dimov, Toncho Penev and Ivaylo Marinov) details how vibration and noise from a milking parlour can negatively impact the milk yield and milk quality of a dairy cow. The paper also discusses how exposing animals to noise from an unfamiliar source can cause them stress.

It is also important to note that the developer has not taken into account the ways in which farmers depend on the local roads for moving cattle and for access to their land when going about their daily tasks within their farms.

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.

### **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  $23 \pm 7$  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>

### **Extra construction traffic**

I strongly object to this proposal due to the major disruption and safety risks it poses to our local community during the construction phase. The Traffic Management Plan fails to provide clear information on delivery schedules, routes or mitigation for abnormal turbine loads. Our rural roads are narrow, shared by farm machinery, school buses and local traffic, and cannot safely accommodate such heavy haulage without damage or obstruction. The application states that there will be approximately 14 extra return trips made by trucks carrying materials. This is vastly underestimated for a project of this size. There are no binding

guarantees on road repairs, traffic management or timing of deliveries to avoid peak community use. Residents, farms and schools in Barnaderg, Cooloo and surrounding areas will face delays, dust, noise and restricted access. This plan does not adequately safeguard community safety, local livelihoods or the integrity of rural infrastructure. Permission should not proceed without full, enforceable traffic controls and local protection measures.

### **Climate impact**

I object to the proposed Cooloo Wind Farm because it would damage Ireland's ability to meet its climate targets under the Climate Action and Low Carbon Development Act 2021. By excavating peat and clearing mature forest, this project will release large amounts of stored carbon and increase emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector, which is already a major source of greenhouse gases. Under the law, all public bodies must act consistently with national carbon budgets. Allowing a development that worsens LULUCF emissions contradicts that duty and the EU 'no debit' rule under Regulation (EU) 2018/841. Renewable energy projects are important, but they should not come at the cost of destroying carbon-rich habitats or undermining Ireland's long-term environmental obligations.

### **Battery storage and substation safety risks**

I object on the grounds of unacceptable risks to public health, fire safety, and water contamination posed by the proposed substation and Battery Energy Storage System (BESS).

The developer's own Appendix 12-3 Battery Storage Noise Assessment (Sept 2025) identifies fifteen CATL EnerC+ battery containers containing lithium-ion (LiFePO<sub>4</sub>) systems manufactured by CATL. Predicted operational noise levels reach up to 31 dB LAeq at nearby homes, representing an increase of +11 to +14 dB above background levels. The report itself classifies this as a "significant adverse impact" on residential amenity. Scientific research shows that chronic noise above 30 dB can raise risks of cardiovascular disease and sleep disturbance.

Lithium-ion Battery Energy Storage System (BESS) installations worldwide have experienced fires and explosions that release toxic gases such as hydrogen fluoride and hydrogen cyanide. Research shows that fire-water run-off from lithium-ion battery fires can contain hydrofluoric acid, dissolved metals, and fluorinated organic compounds, which may contaminate nearby soil and waterways if not properly contained.

This proposed Substation and BESS would have a major impact on The Lough Corrib Special Area of Conservation, as a nearby stream eventually flows into Lough Corrib, potentially harming aquatic life and drinking water sources.

Based on the absence of any Fire Safety Management Plan within Appendix 12-3, it appears that nearby fire services are not equipped or trained to respond effectively to large-scale lithium-ion battery fires.

In *Grace & Others v. An Bórd Pleanála* (2017), the Supreme Court ruled that a residence within one kilometer of a proposed development site had standing to argue against consent. This case emphasizes the significance of thoroughly evaluating related infrastructure such as the substation and BESS, which ought to be included in the same consenting procedure as the wind farm itself.

With homes, farmland, and livestock within a few hundred metres of the proposed site, this industrial-scale development poses an unacceptable risk to community health, safety, and environmental integrity. Until independent noise, fire-safety, and hydrological risk audits are completed and verified by competent authorities, I urge An Bord Pleanála to refuse this application in accordance with the Precautionary Principle.

### **References:**

- National Fire Protection Association (NFPA) (2020) Hazard Assessment of Lithium-Ion Battery Energy Storage Systems

- TNEI Ireland (2025) Appendix 12-3 Battery Storage Noise Assessment
- World Health Organization (WHO) (2018) Environmental Noise Guidelines for the European Region
- Irish Legal News (2017) Supreme Court: Challenge to wind farm development referred to CJEU

### **Major accidents and natural disasters**

I object on the grounds that Chapter 16 of the Cooloo Wind Farm EIAR fails to provide a robust assessment of major accident and natural disaster risks.

The report's references to peat instability and raised-bog cutover are inadequate given the known susceptibility of peat landscapes to movement and sediment release during heavy rainfall or storm surge events. The EIAR's reliance on generic statements about low geological risk neglects the amplified high-wind, flood and peat-fire hazards forecast for County Galway under the local authority climate plan.

The lack of detailed modelling of flood-pathways or worst-case scenario storm events undermines the precautionary principle embedded in Irish planning law. This is a serious deficiency given the scale of the proposed development and the sensitivity of the peat landscape.

No explicit contingency or evacuation measures are detailed for the community along the grid-route corridor — a serious omission when tall turbines and infrastructure could present hazard in extreme events.

The assessment is incomplete and fails to satisfy the legislative requirements of an EIAR insofar as it must identify, describe and assess direct and indirect effects of the development on the environment and human beings.

I call on An Coimisiún Pleanála to require an independent supplementary risk assessment, specific to peat-hazard, flood-modelling and major-accident scenarios, before any decision is made on this application.

#### **References:**

- Galway County Council (2024) Local Authority Climate Action Plan 2024-2029
- Environmental Protection Agency (EPA) (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EIAR)
- European Commission (2024) Environmental Impact Assessment: Overview of EU Rules

### **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,

A handwritten signature in black ink, appearing to read 'Thomas John Burke', written in a cursive style.

Name: Thomas John Burke

Date: 14 November 2025