

# OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Richie Mc Walter

Hillsbrook

Barnaderg

Tuam

Galway

To: An Coimisiún Pleanála

64 Marlborough Street

Dublin 1

D01 V902

Date: 09 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'm 76 years old and I live approximately 1.69km from turbine 3 and I object to this windfarm based on its visual impact. The proposed turbines are enormous in size and will effect my grandchildren as well as my extended family. There are 5 generations of my family which have lived in this area and this development may impact on future generations living in the area. I strongly object to this proposal based on these reasons and the reasons below:

## **Community Consultation and Engagement**

The consultation led by Neoen and MKO for the Cooloo Wind Farm was deeply flawed and misleading. It does not meet the standards of genuine public engagement expected by An Bord Pleanála.

Notices appeared in the Irish Examiner while the Tuam Herald, the community's main news source, was ignored.

There was only a single public consultation meeting which was held outside Moylough, even though seven of nine turbines are proposed there. The plans have also changed significantly since this original meeting.

Despite claims of outreach to community groups, neither Killrerin Community Council nor Killrerin GAA were consulted. Only 55 homes were visited during 'door-to-door' engagement and ten written responses were received which is evidence of a process that failed to inform or involve the community. With poor broadband limiting access to online materials, and many residents not having the skills or technical knowledge to access online content, many locals were effectively excluded.

This was not meaningful consultation but a box-ticking exercise which did not provide the community with a fair chance to participate. These failures must carry serious weight in An Bord Pleanála's consideration of the application.

### **Planning Framework and Guidelines**

The application depends upon the 2006 Wind Energy Development Guidelines (WEDG), which are nearly twenty years old. These guidelines were written when onshore turbines rarely exceeded 100 metres in height. The proposed turbines, however, are approximately 180 metres tall, almost double that scale, yet the same 500-metre setback is applied. This outdated standard fails to reflect advances in turbine design, the increased magnitude of visual, noise and shadow impacts, or current scientific understanding of low-frequency sound and health. Comparable European jurisdictions apply height-based setbacks (for example, 10 times turbine height or a minimum of 1–2 km). Proceeding under static 2006 standards is inconsistent with international best practice and contrary to the precautionary principle enshrined in Article 191 of the Treaty on the Functioning of the European Union (TFEU). By relying on obsolete national guidance, the proposal fails to satisfy the Galway County Development Plan 2022–2028 (GCDP) objectives to preserve landscape character and protect residential amenity (Policies LCM 1 and LCM 2).

### **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.

### **Right to Peaceful Enjoyment of Property**

Article 1, Protocol 1 of the European Convention on Human Rights (ECHR) safeguards 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."

Approval of this proposed wind farm would constitute a clear interference with this right. If the development proceeds, I will be deprived of the peaceful enjoyment of my home and property. The construction and operation phases would bring significant and continuous disturbance — including persistent noise pollution, low-frequency noise (LFN), shadow flicker, and heavy vehicle movements. The tranquillity and visual amenity of my surroundings, which form an intrinsic part of my home environment and well-being, would be irreversibly diminished.

During construction, the constant flow of heavy machinery and associated noise would cause ongoing disruption and stress, further impacting daily life. Once operational, the presence of industrial-scale turbines dominating the landscape would permanently alter the character of the area, stripping residents of the quiet enjoyment of their homes and lands. This level of intrusion cannot be considered proportionate or justified in the public interest, and therefore conflicts with the protections afforded under Article 1, Protocol 1 of the ECHR.

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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**

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**

Planning permission for the proposed Cooloo Wind Farm should be refused on the basis that it poses a clear and foreseeable risk of substantial interference with the normal use and enjoyment of nearby homes. In *Byrne & Moorhead v ABO Energy* [2025] IEHC 330, the Irish High Court found that wind turbine noise—specifically low-frequency and amplitude-modulated sound—constituted a private nuisance under common law, as it significantly disrupted residents' ordinary domestic life. The Court held that such noise amounted to an unreasonable and continuous intrusion, preventing the quiet occupation of the home and resulting in the permanent shutdown of three turbines in County Wexford.

The Cooloo proposal relies on outdated ETSU-based noise criteria that fail to account for the same low-frequency and modulated noise effects found to cause substantial nuisance in the Wexford case. Given the proposed turbines' greater height and rotor size, the likelihood of these harmful acoustic effects occurring at Cooloo is even higher. Approving this development under obsolete standards would disregard the High Court's findings and expose local residents to predictable and legally recognized interference with their right to the peaceful enjoyment of their homes. Planning permission should therefore be refused in full on these grounds.

### **Shadow Flicker**

Given this proximity and the extraordinary scale of the proposed turbines, I believe the shadow flicker standards outlined in the Wind Energy Development Guidelines (2006) issued by the Department of Housing, Local Government and Heritage are no longer adequate to protect residential amenity or public health.

The proposed turbines represent a dramatic escalation in size compared to those contemplated in 2006:

- Tip Height: 180 meters
- Rotor Diameter: 162 meters
- Hub Height: 105 meters
- Swept Area: Over 20,000 m<sup>2</sup> per turbine

These dimensions significantly increase the area affected by moving shadows, extending the reach and intensity of shadow flicker events. The 2006 Guidelines do not account for turbines of this magnitude, nor the cumulative impact of multiple units in close proximity to residential receptors.

The Guidelines permit up to 30 hours of shadow flicker per year at any dwelling. This threshold is:

- Arbitrary and unsupported by contemporary health research
- Uniformly applied without regard to turbine scale or proximity
- Silent on cumulative exposure from multiple turbines

No scientific basis is provided for the 30-hour limit, and no differentiation is made between single-turbine exposure and multi-directional flicker from clustered arrays.

Shadow flicker is often dismissed as a minor nuisance, yet growing evidence suggests more serious implications:

- Annoyance and Stress: The U.S. Department of Energy's WINDEXchange notes that even limited flicker can create persistent discomfort, especially during sensitive times of day.
- Sleep Disruption: A 2013 report commissioned by the Scottish Government (University of Salford) found that shadow flicker may contribute to sleep disturbance and reduced sleep quality.
- Photosensitive Epilepsy: Although rare, flicker frequencies between 3–30 Hz can pose risks. Complex interactions between blade movement, sun angle, and window geometry may approach sensitive thresholds.
- Motion Sickness-like Symptoms: The ClimateXChange report noted symptoms such as dizziness and nausea linked to visual stimuli like flicker.
- Mental Health and Quality of Life: A 2023 article by Fritz Energy documented community complaints about anxiety, reduced concentration, and general decline in wellbeing.
- The Guidelines make no distinction between general receptors and vulnerable groups (children, elderly, or

those with neurological conditions).

- In ABP Case 318943, shadow flicker was cited as a material concern, particularly where receptors were located within 500m of turbines. The Environmental Impact Assessment recommended turbine-specific control measures.

The 2006 Wind Energy Development Guidelines offer minimal direction on how shadow flicker should be assessed, modelled, or mitigated. This omission is particularly problematic in the context of modern turbine arrays, where cumulative impacts and technological scale far exceed what the original standards contemplated.

The Guidelines do not specify:

- Which modelling tools should be used (e.g. WindPRO, WAsP, or bespoke GIS-based systems)
- What input parameters are required (e.g. rotor dimensions, sun path algorithms, terrain shading)
- Whether modelling should account for worst-case scenarios or realistic exposure windows

This opens the door to inconsistent and potentially misleading assessments. Developers may use optimistic assumptions (e.g. average sunshine hours, limited exposure angles) that understate the true impact on nearby dwellings.

There is no requirement to assess:

- Overlapping flicker events from multiple turbines
- Multi-directional exposure due to turbine layout
- Seasonal variation in sun angle and flicker duration

The Guidelines do not require developers to implement or even consider:

- Automated curtailment systems that shut down turbines during predicted flicker windows
- Physical shielding (e.g. planting, screens) to block flicker paths
- Real-time monitoring or complaint-based response protocols

This leaves residents like us with no enforceable protection. Even if flicker exceeds tolerable levels, there is no mechanism to compel mitigation unless it's voluntarily offered by the developer or imposed by planning conditions.

Other jurisdictions have moved beyond static thresholds:

- Germany requires modelling based on actual sunshine hours and mandates curtailment if flicker exceeds 30 minutes per day.
- Scotland recommends site-specific modelling and mitigation, especially near sensitive receptors.
- The Netherlands uses dynamic modelling and requires flicker-free zones around homes.

Ireland's 2006 Guidelines fail to reflect these advances, leaving communities exposed to outdated standards that do not match the realities of modern turbine design.

The shadow flicker provisions in the 2006 Wind Energy Development Guidelines are outdated and insufficient for assessing the impacts of modern wind farms, particularly in residential settings like mine. The scale and proximity of the turbines proposed near my home significantly increase the risk of adverse effects, yet the current standards offer no meaningful protection.

I respectfully urge the planning authority to:

- Apply a precautionary approach
- Require robust modelling and mitigation
- Consider the lived experience of residents
- Reject applications that fail to demonstrate compliance with updated standards

References

- Wind Energy Development Guidelines (2006) – Department of Housing, Local Government and Heritage
- ABP Case 318943 – Chapter 11: Shadow Flicker
- WINDEXchange – U.S. Department of Energy
- ClimateXChange – Report on Health Impacts of Wind Turbines (2013)
- Fritz Energy – Wind Turbines and Shadow Flicker (2023)
- Clean Power – Wind Turbines and Public Health

### **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 2.49 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 2.49 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**

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 - Bats**

I object to the Cooloo Wind Farm because the proposal fails to adequately protect bats, which are strictly protected under EU law. The developer's surveys show that several bat species, including the Lesser Horseshoe Bat, use the area leaving a real risk of collision, disturbance, and loss of important foraging habitat. As these impacts cannot be confidently ruled out, the project should be refused on the grounds of non-compliance with the EU Habitats Directive and insufficient protection of bats and their habitats.

### **Climate impact**

From a scientific standpoint, developing the Cooloo Wind Farm on peat and forested land will create significant carbon losses from disturbed soils and vegetation. The Environmental Protection Agency already reports over 7 Mt CO<sub>2</sub>e annually from the LULUCF sector. Any further increase breaches the intent of Ireland's carbon budgets and the EU LULUCF Regulation, which requires no net debit from land use. The Climate Action and Low Carbon Development Act 2021 obliges decision-makers to act consistently with these limits. Replacing intact carbon sinks with infrastructure and limited native replanting does not align with the national climate objective of net zero by 2050. This project should be refused unless it fully restores and rewets the affected peatlands to avoid additional emissions.

### **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

### **Bird collision risk**

I object to the proposed development on the grounds that the Collision Risk Assessment (Appendix 7-6, MKO 2025) is methodologically and scientifically inadequate to protect legally protected bird species.

The assessment relies on the theoretical Band Model, which assumes fixed avoidance rates and static behaviour, without validation using telemetry or local field data. Survey coverage is temporally and spatially limited, missing key migration and nocturnal flight periods. This approach fails to capture the real-world behaviour of birds in the area.

The use of a 99.5% avoidance rate for Whooper Swans, without local validation, significantly underestimates the risk of collision. Evidence from Irish Wetlands Bird Survey (I-WeBS) and BirdWatch Ireland indicates that Whooper Swans routinely commute between Horseleap Lough and surrounding feeding areas at low altitudes that overlap turbine rotor heights. The conclusion of 'negligible risk' is therefore unsupported and unreliable.

The report fails to consider cumulative impacts with other regional wind farms or infrastructure, contrary to EU Directive 2009/147/EC (Birds Directive) and Article 6(3) of the Habitats Directive. This is a serious omission given the presence of multiple wind energy developments in the region.

Mitigation measures are undefined and untested. Key figures such as flightline maps (e.g., Figure 7-6-1) are omitted, hindering independent review and transparency. Without clear, evidence-based mitigation strategies, there is no guarantee that collision risks can be managed effectively.

Under the Birds Directive (2009/147/EC) and the Habitats Directive, Ireland has a legal obligation to protect migratory and resident bird populations. The assessment as presented does not provide sufficient evidence that these obligations can be met.

I respectfully request that the planning authority reject or defer this application pending an independent, peer-reviewed reassessment. This should include:

- Full telemetry and radar data for local bird populations
- Expanded seasonal coverage including migration and nocturnal periods
- Transparent disclosure of all field survey data and model assumptions
- Cumulative impact assessment with regional wind farms
- Defined, evidence-based mitigation strategies

References:

- MKO (2025). Appendix 7-6 Collision Risk Assessment, Cooloo Wind Farm EIA
- Band, W., Madders, M. & Whitfield, D. (2007). Developing field and analytical methods to assess avian collision risk at wind farms
- Scottish Natural Heritage (2018). Avoidance Rates for the Onshore Wind Farm Collision Risk Model
- NatureScot (2021). Research Report 909: Using a collision risk model to assess bird collision risks onshore wind farms
- Rees, E. (2006). Whooper Swans: Biology and Conservation. T & AD Poyser
- Crowe, O. et al. (2019). Migration and Roosting of Whooper Swans. Irish Birds 43
- BirdWatch Ireland (2024). Whooper Swan Species Profile & Irish Wetlands Bird Survey (I-WeBS)
- European Commission (2021). Wind Energy and Natura 2000

### **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. This proposal has also divided our community and in time, if this development is allowed to go ahead, it will destroy relationships within the community and no doubt have an impact on the population of the community.

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

Yours Sincerely,

Richard McWalter

Name: Richie Mc Walter  
Date: 09 November 2025