

OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Caroline Lohan

Twentyacres

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 wish to register my strong objection to the proposed wind turbine development in Cooloo / Barnaderg area. I am a resident who has values the unique natural character of this landscape and I am deeply concerned about the significant and irreversible impact this project would have on the environment and the overall quality of life in our community. We have a plot of bogland in Cooloo bog which has been in the family for generations which will be 150 m from proposed turbine T6, so I am well aware of the environmental impacts that this development will have. One of the defining features of living in Twentyacres is the unspoilt horizon and clear uninterrupted view of the sunrise. This natural beauty is an essential part of the area's character and contributes greatly to our sense of place and wellbeing. The construction of large industrial scale turbines would fundamentally alter the landscape, replacing a peaceful rural vista with towering mechanical structures visible for miles. Such a visual intrusion cannot be mitigated and would permanently diminish the scenic value of the locality. The proposed development also raises concerns about noise pollution, shadow flicker and potential impact on local wildlife and habitats. Barnaderg is home to a variety of bird species and other wildlife that rely on the integrity of the land and sky for survival. The disruption caused by turbine installation and operation poses real ecological risks that should not be underestimated. Furthermore the rural community around Barnaderg has deep historical, cultural and agricultural roots. The scale and the industrial nature of a windfarm are incompatible with the character of this area and would undermine both its tranquility and its long

standing identity. For residents this is not simply an aesthetic loss it is the erosion of a landscape that shapes daily life, mental wellbeing and the connection we have to our home.

While I fully support the need for responsible renewable energy, such development must be sited appropriately and with full respect for those whose lives will be affected. In this instance the environment, visual and community impacts far outweigh any potential benefits.

For these reasons and the reasons below I respectfully request the proposed wind turbine development in Cooloo / Barnaderg Tuam Co. Galway not be approved.

Community Consultation and Engagement

The basis that the community consultation process was carried out by Neoen and MKO for the proposed Cooloo Wind Farm has been fundamentally inadequate and does not meet the standards of meaningful public engagement required under the Draft Revised Wind Energy Development Guidelines (2019) or An Bord Pleanála's Strategic Infrastructure Development protocols.

The consultation was poorly publicised, using the Irish Examiner, a Cork-based paper with minimal reach in north-east Galway, for statutory notices instead of the Tuam Herald, the area's primary local newspaper. This choice deprived many residents of awareness and opportunity to participate.

Claims of engagement with "local groups, clubs and schools" are inaccurate. Key organisations such as Killereerin Community Council and Killereerin GAA received no correspondence or invitations to contribute. Furthermore, no public consultation meeting was held in Moylough, where seven of the nine turbines are proposed, further excluding the most affected residents.

Reported "door-to-door engagement" reached just 55 homes within 1 km of the turbines, yielding only ten written responses which is an unacceptably low level of participation for a project of this scale. Reliance on online materials was ineffective given poor broadband in the area.

Overall, the process was selective, poorly targeted, and misleading in its presentation of local engagement. These failings undermine the project's compliance with public participation standards and should be given significant weight in An Bord Pleanála's assessment.

Planning Framework and Guidelines

The continued reliance on the Wind Energy Development Guidelines 2006 is no longer appropriate or proportionate given the significant evolution of wind energy technology and the clear advancements in scientific understanding since their publication nearly two decades ago. The 2006 Guidelines were developed in an era when turbines were typically less than 100 metres in height and generated 1–2 MW of power. The turbines in this proposed development will be 180 metres and produce approximately 6 MW of power. This will result in greater visual, acoustic, and environmental impacts than those contemplated in 2006.

The fact that the Wind Energy Development Guidelines 2006 has been acknowledged in the Dáil many times by many different people. In 2013 Deputy Michéal Martin told, the then Taoiseach, Enda Kenny that the guidelines were outdated and were never framed in the context of the new technology. Yet in 2025 Tánaiste Simon Harris is still saying in the Dáil that he acknowledges that the guidelines are outdated and that there is a specific commitment from the Government to prioritise the publication of new guidelines.

It is therefore unreasonable and contrary to the principles of proper planning and sustainable development for An Coimisiún Pleanála to continue to rely solely on the 2006 Guidelines. An Coimisiún Pleanála must make sure that any decision made is not based on outdated standards.

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.

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

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 m² 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

I am concerned that the presence of the wind turbines so close to the three local schools will have an impact on students, staff and the overall school community. All of the schools are less than 2.5 km away from a turbine. Turbines are known to create noise, low frequency infrasound and shadow flicker. These issues will no doubt impact on the students in the local schools.

Also 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. I am also concerned that if Cooloo Wind Farm is granted planning permission less people will be moving to or building in the area. This will lead to fewer children in the community and may lead to schools losing teachers, and ultimately school closures.

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 t 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.

Biodiversity impact

I object to the proposed development on the grounds of its significant and permanent impact on biodiversity, including legally protected habitats and species.

The project's Environmental Impact Assessment Report (EIAR) acknowledges a residual adverse effect on Degraded Raised Bog (habitat 7120), a habitat of County Importance with capacity for natural regeneration (EIAR Ch. 6, p. 142). Construction of the proposed floating access road between turbines T7 and T9 will directly remove approximately 0.18 ha of this sensitive peatland and disrupt its hydrological balance (EIAR Ch. 6, Sec. 6.5.2.1.1). This is contrary to the conservation obligations set out under the EU Habitats Directive (92/43/EEC).

The site supports cutover bogs (PB4) and Marsh Fritillary (*Euphydryas aurinia*), an Annex II species protected under European law. Breeding webs were recorded near turbine T5 within metres of proposed construction works (EIAR Ch. 6, Sec. 6.4.3.3). The disturbance, dust, and drainage changes associated with turbine and road construction threaten the species' survival locally, directly conflicting with Ireland's duty to maintain favourable conservation status for Annex II species.

The EIAR highlights potential effects on hydrology and connected wetland systems that could degrade otter (*Lutra lutra*) habitat and aquatic fauna (EIAR Ch. 6, Sec. 6.5.2.1.1 and 6.2.2). Otters are also protected under Annex II of the Habitats Directive, and any degradation of their habitat represents a breach of Ireland's legal obligations.

These outcomes are inconsistent with the objectives of the National Biodiversity Action Plan 2023–2030, which seeks to prevent net biodiversity loss. Allowing this development to proceed would contradict national policy commitments and international conservation obligations.

Given the acknowledged residual adverse effects on protected habitats and species, I respectfully request that An Coimisiún Pleanála refuse permission for this development. The permanent loss and degradation of biodiversity cannot be justified, particularly where protected species and habitats are involved.

References:

- EU Habitats Directive (92/43/EEC)
- National Biodiversity Action Plan 2023–2030
- EIAR Chapter 6 (Biodiversity)
- An Coimisiún Pleanála Case 323761

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.

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.

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.

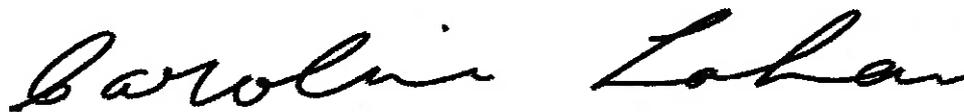
The local wind farm's size and visual impact are excessive and inconsistent with the character of the area. While supporting renewable energy, developments must respect the local landscape — this project does not. The proposal should therefore be refused on the grounds of unacceptable visual and landscape 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, reading "Caroline Lohan". The signature is written in a cursive, flowing style.

Name: Caroline Lohan

Date: 14 November 2025