

OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Marwan Abbas

Hillsbrook

Barnaderg

Tuam

Galway

To: An Coimisiún Pleanála

64 Marlborough Street

Dublin 1

D01 V902

Date: 20 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 Hillsbrook with my wife and two children. I work from home so I rely on a stable broadband service and noise free environment as I have many meetings throughout the day. Both my children attend barnaderg NS which is 3.5km from the windfarm and I'm worried about traffic during construction and their safety due to the huge increase in traffic in a quiet rural area. I'm worried my kids will be prohibited from living in the area as I've seen recently in the news that a wind developer has objected to a person building near their development. I'm worried that when I want to enjoy time outdoors with my children that in the future it won't be the serene environment it now is.

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 Killarney Community Council and Killarney 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.

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.

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

The EIAR's treatment of shadow flicker fails to meet statutory and international standards for the assessment and mitigation of human health and residential amenity impacts. It relies on outdated guidelines, applies over-simplified modelling assumptions, and does not provide adequate protection to the large number of dwellings and receptors affected.

The EIAR confirms that:

- 218 residential receptors are located within 1.62 km of proposed turbines,
- 171 of these are predicted to experience shadow flicker, and
- 43 receptors are within 1 km of a turbine.

These figures demonstrate that the project is situated in a densely inhabited rural area, yet the assessment dismisses the significance of impact based solely on a theoretical model rather than verified site conditions.

By any reasonable measure, 171 dwellings affected by a rotating shadow intrusion constitutes a major residential amenity and public health concern, not a negligible effect.

The EIAR applies the 2006 DoEHLG Wind Energy Development Guidelines, which allow up to 30 minutes per day or 30 hours per year of shadow flicker at any dwelling.

However:

- The 2019 Draft Wind Energy Development Guidelines (and reiterated in the 2025 Climate Action Plan Annex) require that no occupied dwelling or sensitive receptor experiences any shadow flicker through the use of automatic turbine control systems.
- The EIAR itself acknowledges that turbine software could achieve this standard but chooses to assess impacts under the obsolete 2006 thresholds.

This approach is contrary to current best practice and fails to future-proof the development in line with national policy on renewable energy development and community protection. Although the EIAR cites various international studies (some over a decade old) claiming no proven medical link between shadow flicker and disease, it fails to address contemporary health guidance:

- The World Health Organisation (2018) recognises annoyance and sleep disturbance as legitimate health effects of environmental light and noise intrusions.
- The HSE's own scoping response (2023) requested an assessment of all likely significant impacts on sensitive receptors, including shadow flicker, along with proposed mitigation.
- The EIAR's discussion focuses on whether shadow flicker can cause seizures (which is rare), but ignores chronic stress, fatigue, and loss of amenity due to regular flicker events within residential interiors.

The result is a narrow and outdated view of human health inconsistent with EPA (2022) guidance, which defines health as "a state of complete physical, mental and social well-being."

The shadow flicker assessment in the Cooloo Wind Farm EIAR is deficient, outdated, and incomplete. It underestimates the true scale of residential intrusion and fails to apply the precautionary principle required under both EU and Irish environmental law.

Given:

- 171 dwellings predicted to experience flicker

- Outdated 2006 guideline thresholds
- Absence of enforceable mitigation and cumulative analysis

this development cannot be deemed to have no likely significant effect on human health or amenity.

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.

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.

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 (LiFePO₄) 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

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.

Broadband Impact

Given the number currently working from home now, strong broadband is a necessity. There are concerns that the signal, and therefore working from home capabilities will be negatively affected by this proposed

windfarm. This is due to the fact that the windfarm is situated exactly within line of sight to the mast. It is unacceptable that broadband signal and mobile phone services utilizing this mast will be degraded, and potentially to such a degree that it will be unusable. This may be worsened by the width of the wind turbine needed to support the weight, and the blades which can create periodic drops in signal level and variable amounts of reflection.

Project Splitting

The proposed development of Cooloo Wind Farm, which comprises up to 9 turbines also includes planned ancillary infrastructure such as a battery energy storage system (BESS), substation, and grid connection.

However, the developer has noted in planning documents that they are seeking planning permission first for the turbines alone, with a separate planning application to follow later for the substation, BESS, and grid connection. Such a strategy constitutes project splitting, which undermines a comprehensive assessment of the full environmental, social, and infrastructural impacts of the proposal.

These components are not separate or optional: they are functionally and operationally interdependent. The turbine generation, energy storage, and grid export cannot meaningfully exist in isolation. Therefore, the entire Cooloo project must—and legally should—be reviewed as one integrated development.

This approach is not merely procedural: failing to assess all elements together risks underestimating cumulative impacts (noise, ecological disturbance, landscape, grid infrastructure), and weakens public transparency and engagement on the full scope of the development. Accordingly, planning permission should be considered for Cooloo Wind Farm as a single, unified project, not disaggregated stages.

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,

Marwan
Abbas

Name: Marwan Abbas

Date: 20 November 2025