

OBSERVATION/SUBMISSION TO PLANNING APPLICATION

Case Reference: 323761

Caroline Greaney

Forty Acres

Barnaderg

Tuam

Galway

To: An Coimisiún Pleanála

64 Marlborough Street

Dublin 1

D01 V902

Date: 13 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,

Our names are Caroline and Paul Greaney. We built our family home 24 years ago. We worked hard and raised four wonderful children in this village. Our family consists of two young men in our twenties but due to the current housing crises, they cannot move out. Both are working in the local area. Our two daughters are neurodiverse, one has been diagnosed with Autism. The other has been diagnosed with ADHD and severe anxiety.

I work in Moylough in child care and my husband has been diagnosed with stage five kidney failure. He has to travel three times a week for dialysis to Galway. These enormous Turbines are going to destroy everything we have worked for. They will impact our lives starting with the road closures during construction and more importantly my husbands travels for his treatments.

After working so hard to own our home and provide security for ourselves and our family we are especially concerned for our daughters with the noise and chaos the building of these Turbines will create for them and equally the devaluation of our homes that we are entitled to feel safe in.

I request An Coimisiún Pleanála to reject the planning application for Cooloo Wind Farm and I object with my

family on the following grounds

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 Killereen Community Council nor Killereen 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 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.

Barnadeg Gortbeg Group Water Scheme

I use the water from Barnadeg 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 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.

Property Devaluation

The 2023 CERIS (Centre for Economic Research on Inclusivity and Sustainability) paper – 'Wind Turbines and House Prices Along the West of Ireland: A Hedonic Pricing Approach' – surveyed the prices of houses located near windfarms in seven counties.

The paper states that: 'The analysis finds a robust and significant reduction in property value of -14.7% within 1km of a turbine' and that 'Back-of-the-envelope calculations suggest that the total loss in value for houses within 1km of a turbine in the case counties is approximately €6.8 million.'

Galway County Council is an agent for the state of the Republic of Ireland and as such is responsible to uphold Article 40 of the Irish Constitution which states – 'the state shall in particular by its laws protect as best it may from unjust attack and in the case of injustice done vindicate the life, person, good name, and property rights of every citizen.'

I am aware that the Barnaderg Cooloo Wind Farm Action Collective have spoken to a local auctioneer, who said that he had trouble selling a house in County Mayo because it was close to several wind turbines. The auctioneer was able to site a specific instance whereby a married couple looked at the house and decided not to buy it. The auctioneer said that the presence of the wind turbines was a crucial factor in the couple's decision not to buy the house. The owners of this house ended up selling for less money than the couple had been initially willing to pay for the house.

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.

Impact of Wind Turbines on the Neurodiverse within the Community

Numerous studies and planning inspectors with An Coimisiún Pleanála have acknowledged that wind turbines can have negative effects on neurodiverse individuals. Research by Howell (2015) found that people with autism are more sensitive to environmental noise, experiencing higher rates of sleep disturbance, cognitive difficulties, and stress due to low-frequency noise (LFN). The neurodiverse community often struggles to filter background sounds, and constant turbine noise and vibration could cause pain, anxiety, and loss of concentration, reducing quality of life.

These impacts extend to education. Local schools and preschools, including Brierfield National School which has a special class for children with autism, would be particularly affected. Senior planning inspectors have previously noted that facilities for children with additional educational needs may become unviable near large-scale wind farms due to such disturbances.

Shadow flicker poses further risks, as studies (Becchio et al., 2010) show that individuals on the autistic spectrum may fixate on spinning movements, heightening distress. Those with epilepsy or neurological conditions may also be affected.

Ireland's obligations under the UN Convention on the Rights of Persons with Disabilities require protection from harm and equal enjoyment of rights. Allowing this development would contradict those principles.

While more research is needed, there is no definitive evidence proving that wind farms are safe for, and do not significantly impact, the neurodiverse community—and the absence of evidence is not evidence of absence.

References:

- An Bord Pleanála. (2016). PA0041 – Assisting report to Senior Inspector [PDF].
<https://www.pleanala.ie/anbordpleanala/media/abp/cases/reports/pa0/rpa0041a.pdf>
- An Bord Pleanála. (2015). Inspector's report: ABP-PA0038 [PDF].
<https://www.pleanala.ie/anbordpleanala/media/abp/cases/reports/pa0/rpa0038.pdf>
- Howell, G. (2015). Autism and the effect of introducing a new noise source into quiet rural communities: risk factor from industrial wind power generation
- Becchio C, Mari M, Castiello U (2010) Perception of Shadows in Children with Autism Spectrum Disorders. PLoS ONE 5(5): e10582.
<https://doi.org/10.1371/journal.pone.0010582>

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 - Bats

I object on the grounds that the assessment of bat mortality risk is inadequate and fails to meet current scientific standards for acoustic monitoring and mitigation.

Wind turbines are well-documented sources of bat mortality through collision and barotrauma. Recent peer-reviewed research by Behr et al. (2023, *Mammal Review*, 53: 65–71) confirms that bat fatalities can be reliably estimated only where standardised, referenced acoustic monitoring protocols are applied. The Cooloo Wind Farm EIA does not demonstrate compliance with these standards.

- No evidence of standardised, referenced acoustic monitoring at nacelle level
- Ground-level acoustic surveys and short-term transects are insufficient and cannot predict turbine-specific collision risk
- The proposed tall, large-rotor turbines increase collision risk and monitoring uncertainty
- No commitment to validated curtailment systems (such as ProBat) which have been shown to substantially reduce bat mortality
- Absence of site-specific validation and continuous monitoring means bat fatalities may be severely underestimated

Under the EU Habitats Directive (Articles 12 and 16) and the Wildlife Acts 1976–2018, all Irish bat species are strictly protected. Developers and planning authorities have a legal duty to ensure projects do not result in deliberate killing or disturbance of bats or deterioration of their breeding or resting sites. The absence of scientifically robust, standardised acoustic monitoring represents a significant procedural and ecological shortcoming.

I respectfully request that An Coimisiún Pleanála require:

- Standardised, referenced acoustic monitoring following international best practice
- Nacelle-mounted, calibrated detectors to monitor bat activity continuously throughout operation
- Validated curtailment systems (e.g. ProBat) to automatically shut down turbines during high bat activity
- Independent review and public reporting of all monitoring protocols and data
- Precautionary curtailment during high-risk seasons until adequate local reference data are available

Reference:

- Behr, O., Brinkmann, R., Mages, J., Niermann, I., Komer-Nievergelt, F., & Voigt, C. C. (2023). Standardised and referenced acoustic monitoring reliably estimates bat fatalities at wind turbines. *Mammal Review*, 53(1), 65–71. <https://doi.org/10.1111/mam.12302>

Biodiversity Impact - Earthworms

I object on the grounds that the Environmental Impact Assessment fails to address the impacts of wind turbine-induced vibrational noise on soil biodiversity and ecosystem function, particularly earthworm populations.

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

- Vibrational noise decreased by only 23 ± 7 dB over 200 metres, meaning measurable vibration extends well beyond turbine bases
- Earthworm abundance declined by approximately 40% near turbines compared to sampling points further away

- Soil compaction and crop type were ruled out, confirming vibrational noise was the primary cause
- The impact is body-size-dependent, especially harmful to earthworms and other large soil invertebrates

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

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

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

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

I respectfully request that An Coimisiún Pleanála require:

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

Reference:

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

Road disruption during construction

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

Major accidents and natural disasters

I object on the grounds that Chapter 16 of the Cooloo Wind Farm EIA 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 EIA'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.

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.

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,

Caroline Greaney

Name: Caroline Greaney

Date: 13 November 2025