

OBSERVATION TO AN COIMISIÚN PLEANÁLA

Case Reference: 324164

Proposed Carrow Wind Farm Development

Townlands of Carrow, Moheragh, Gortaderry, Toomaline Lower, Toomaline Upper, Doon South, Lisgaugh, Cooga Upper, Coolyhenan, Milltown and Killonan.

Observation Submitted By:

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I wish to make clear from the outset that I am not opposed to renewable energy development in principle, nor do I oppose Ireland's transition toward sustainable energy generation.

However, renewable energy development must proceed in a manner that:

- properly protects nearby residents;
- safeguards sensitive environmental receptors;
- complies fully with Irish and European environmental law;
- and ensures that the long-term health, wellbeing and residential amenity of local communities are not disproportionately impacted.

I respectfully submit that significant unresolved concerns remain regarding the proposed Carrow Wind Farm development, particularly in relation to receptor/property 109 and the cumulative interaction of nearby turbines T1, T10, T12 and T14.

In my opinion, the current application documentation does not adequately demonstrate beyond reasonable scientific doubt that significant adverse effects on residential amenity, groundwater, ecology, hydrology and human health can be fully avoided or mitigated.

Accordingly, I believe the proposal requires substantially greater scrutiny, further assessment and stronger protective measures before any lawful determination can reasonably be made.

INTRODUCTION TO OBSERVATION

I wish to submit the following observation in relation to the proposed Carrow Wind Farm development.

I am the owner and occupier of a non-participating residential property identified as receptor/property 109 within the wider study area associated with the proposed development.

My property is located in close proximity to several proposed turbines including T1, T10, T12 and T14 and appears positioned within a concentrated turbine interaction zone where cumulative operational impacts may arise from multiple turbine directions simultaneously.

Having reviewed the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), noise assessment documentation, hydrological reports, shadow flicker assessments and associated appendices submitted in support of this application, I have serious concerns regarding:

- residential amenity;
- cumulative operational turbine noise;
- amplitude modulation and low-frequency noise;
- shadow flicker;
- hydrology and groundwater;
- vulnerability of my private well supply;
- structural impacts on my historic dwelling;
- impacts on mental health and quality of life;
- impacts on vulnerable sensory receptors including autistic family members;
- ecological integrity;
- sedimentation and downstream water quality;
- and compliance with Irish and European environmental law.

I respectfully submit that the applicant has not demonstrated beyond reasonable scientific doubt that significant adverse impacts on my property and the wider receiving environment can be adequately avoided or mitigated.

1. RECEPTOR 109 – PROPERTY SPECIFIC CONCERNS

My property occupies a uniquely sensitive location within the proposed turbine layout.

Based on the submitted mapping and turbine layout plans, my dwelling appears exposed to cumulative operational effects arising from several turbines including T1, T10, T12 and T14.

Unlike receptors located on the outer margins of the development, receptor 109 appears positioned within an active multi-turbine interaction zone.

This raises serious concerns regarding:

- cumulative turbine noise exposure;
- overlapping amplitude modulation (“blade swish” or rhythmic pulsing);
- low-frequency noise;
- night time disturbance;
- visual overbearing effects;
- shadow flicker exposure from multiple turbines;
- long-term degradation of residential amenity.

The surrounding area is currently characterised by a quiet rural sound environment with low background noise levels, particularly during night time periods.

The proposed development would fundamentally alter the existing residential environment and materially interfere with the peaceful enjoyment of my home.

2. HISTORIC FAMINE-ERA DWELLING AND STRUCTURAL VULNERABILITY

The front section of my dwelling dates from the Irish famine era and consists of traditional solid stone masonry construction.

Historic stone dwellings differ materially from modern reinforced concrete or cavity-wall construction and may respond differently to:

- vibration;
- low-frequency noise;
- excavation works;
- heavy construction traffic;
- blasting or rock-breaking activities;
- and prolonged ground disturbance.

Traditional masonry structures are particularly vulnerable due to:

- rigid wall construction;
- historic lime mortar composition;
- settlement sensitivity;
- and the absence of modern structural reinforcement.

I am concerned that:

- turbine foundation excavation;
- road construction;
- heavy construction traffic;
- drainage alteration;

- and associated earthworks

may adversely affect the structural integrity of my dwelling.

I am also concerned that the applicant has failed to adequately assess the acoustic behaviour of traditional stone dwellings in relation to low-frequency turbine noise and vibration.

Long-wavelength low-frequency sound may behave differently within high-mass masonry structures and may create resonance or amplification effects internally.

The EIAR does not appear to contain any site-specific structural or acoustic assessment relating to traditional rural stone housing stock located within the proposed turbine cluster.

I respectfully request that An Coimisiún Pleanála require:

- independent pre-construction structural surveys;
- ongoing structural monitoring during construction;
- vibration monitoring;
- and legally enforceable remediation obligations.

3. NOISE, AMPLITUDE MODULATION AND RESIDENTIAL AMENITY

I respectfully submit that receptor 109 appears materially affected by the proposed turbine layout yet does not appear to have been the subject of representative local background noise monitoring or detailed receptor-specific cumulative assessment.

This is a significant concern.

The apparent absence of representative monitoring in the immediate vicinity of receptor 109 weakens confidence in the reliability of the applicant's conclusions regarding operational turbine noise, cumulative interaction effects and night time disturbance.

The Board should therefore carefully consider whether sufficient information presently exists to lawfully conclude that unacceptable residential amenity impacts will not arise at this receptor.

I have serious concerns regarding the adequacy and reliability of the applicant's acoustic assessment.

The submitted noise monitoring map indicates that no dedicated background noise monitoring location was established in the immediate vicinity of receptor 109 despite its apparent exposure to cumulative impacts from T1, T10, T12 and T14.

This omission is highly significant.

The monitoring locations selected by the applicant do not appear representative of the acoustic environment surrounding my dwelling.

My property may experience:

- cumulative turbine interaction;
- overlapping operational noise from multiple bearings;
- terrain and valley channelling effects;
- night time atmospheric inversion effects;
- downslope sound propagation;
- cumulative amplitude modulation.

I am concerned that the EIAR may significantly underestimate:

- night-time audibility;
- repetitive turbine “thumping”;
- tonal noise;
- low-frequency noise;
- cumulative operational disturbance.

The applicant also appears to have given insufficient consideration to:

- low-frequency noise and infrasound;
- cumulative operational interaction between nearby turbines;
- receptor-specific acoustic conditions;
- long-term residential exposure.

The World Health Organization Environmental Noise Guidelines for the European Region identify annoyance and sleep disturbance as recognised impacts associated with wind turbine noise exposure.

The recent Irish High Court decision in *Byrne & Moorhead v Wexwind Limited & ABO Energy Ireland* (2025 IEHC 330) is highly relevant.

Importantly, the High Court recognised that operational turbine noise may substantially interfere with the normal use and enjoyment of residential property.

The Court ultimately ordered the shutdown of turbines despite their contribution to renewable energy objectives.

The case clearly demonstrates that planning permission does not override the obligation to protect nearby residents from serious residential nuisance or unacceptable interference with residential amenity.

The turbines involved in the Wexwind case were also substantially smaller than those proposed at Carrow.

In that case, the High Court found that operational turbine noise constituted an actionable nuisance and ordered the permanent shutdown of turbines.

Importantly:

- the turbines involved in the Wexwind case were substantially smaller than those proposed for the Carrow Wind Farm;
- the Wexwind turbines were approximately 125m in tip height;
- whereas the proposed Carrow turbines are approximately 185m in tip height.

The Court recognised that turbine noise may substantially interfere with the normal use and enjoyment of residential property.

The judgment demonstrates that:

- operational turbine noise impacts are real and significant;
- amplitude modulation and repetitive disturbance can materially affect residential amenity;
- renewable energy objectives do not override the rights of residents to reasonable enjoyment of their homes.

I respectfully submit that the Board cannot be satisfied that the proposed development will not result in significant adverse residential amenity impacts at receptor 109.

I respectfully request:

- independent scrutiny of the acoustic assessment;
- detailed receptor-specific noise modelling for receptor 109;
- independent assessment of amplitude modulation;
- assessment of low-frequency noise and infrasound;
- clarification regarding worst-case night-time operating scenarios.

4. AUTISM, SENSORY VULNERABILITY AND HUMAN HEALTH

A close family member who regularly visits my property is on the autistic spectrum.

Autistic individuals may experience heightened sensitivity to:

- repetitive sound;
- low-frequency vibration;
- fluctuating environmental noise;
- visual disturbance;
- repetitive shadow effects.

I am deeply concerned regarding the potential impact of:

- repetitive turbine blade noise;
- amplitude modulation;
- night-time disturbance;
- shadow flicker;
- and prolonged construction activity

on vulnerable sensory receptors.

The EIAR does not appear to contain any meaningful receptor-specific assessment relating to vulnerable individuals or sensory sensitivity.

Under the Environmental Impact Assessment Directive and associated Population and Human Health assessment obligations, vulnerable residential receptors should be adequately considered.

I respectfully submit that the applicant has failed to adequately assess the potential human-health implications for vulnerable receptors located within close proximity to the proposed turbine cluster.

5. MENTAL HEALTH, QUALITY OF LIFE AND QUIET ENJOYMENT OF HOME

I relocated from an urban environment to this rural location partly due to mental health and quality-of-life considerations.

The existing environment surrounding my home is defined by:

- peace;
- quiet;
- low ambient noise levels;
- the rural character of the landscape.

The introduction of an industrial-scale wind energy development within close proximity to my property would fundamentally alter that environment.

I am deeply concerned regarding the likely impact of:

- persistent turbine noise;
- night-time disturbance;
- visual dominance;
- construction activity;
- cumulative operational impacts

on my mental wellbeing and quality of life.

The right to peaceful enjoyment of one's home environment is a legitimate planning consideration and should be afforded substantial weight.

6. SHADOW FLICKER AND VISUAL DOMINANCE

Given the relative positioning of receptor 109 to T1, T10, T12 and T14, I have serious concerns regarding cumulative shadow flicker exposure.

My property appears potentially vulnerable to repeated low-angle sunlight interruption from multiple turbines.

The EIAR should clearly identify:

- predicted annual shadow flicker hours affecting receptor 109;
- whether cumulative flicker from multiple turbines has been assessed;
- and what mitigation or operational shut-down protocols are proposed.

I am also concerned that:

- forestry felling;
- vegetation removal;
- and future land-use change

may significantly increase future visual and shadow flicker exposure beyond what has been assumed in the EIAR.

The visual dominance of turbines approaching 185m in height would have a substantial and overbearing impact on the character and enjoyment of my home environment.

7. PRIVATE WELL, GROUNDWATER AND HYDROLOGICAL VULNERABILITY

I respectfully submit that insufficient receptor-specific hydrogeological assessment appears to have been carried out in relation to receptor 109 and the groundwater pathways associated with my property.

This omission is highly significant given that:

- my private well remains located immediately adjacent to my dwelling;
- the groundwater source originates upslope between several proposed turbines;
- and substantial excavation and drainage alteration are proposed within the surrounding area.

The absence of a receptor-specific groundwater vulnerability assessment significantly weakens confidence in the applicant's conclusions regarding groundwater protection and hydrological risk.

Although my property is currently connected to mains water, a private well remains located immediately outside my dwelling.

This well is supplied by groundwater originating upslope between several of the proposed turbines.

This is an extremely significant concern.

The proposed development includes:

- extensive excavation;
- turbine foundations;
- drainage alteration;
- road construction;
- forestry clearance;
- hardstanding installation;
- borrow pits;
- and significant earthworks within an upland hydrological environment.

Potential impacts include:

- groundwater pathway disruption;
- sediment contamination;
- hydrocarbon contamination;
- concrete leachate;
- altered groundwater flow;
- turbidity;
- and long-term hydrogeological change.

The EIAR does not appear to contain any receptor-specific hydrogeological assessment relating to my property or well source.

This omission is highly concerning given the apparent hydrological connectivity between the proposed turbine cluster and the groundwater source supplying my well.

I respectfully submit that the precautionary principle must apply.

I request that the Board require:

- receptor-specific hydrogeological assessment;
- baseline water quality testing;
- independent groundwater monitoring;
- and legally enforceable remediation obligations in the event of contamination or supply disruption.

8. HYDROLOGY, SEDIMENTATION AND WATER QUALITY

The proposed development raises serious concerns regarding:

- sediment mobilisation;
- peat disturbance;
- runoff acceleration;
- drainage alteration;
- and downstream ecological impact.

The development includes extensive infrastructure works within an upland catchment environment including:

- approximately 12.9km of new access roads;
- upgraded roads and tracks;
- turbine foundations;
- underground cabling;
- drainage infrastructure;
- hardstandings;
- forestry clearance;
- borrow pit excavation.

The cumulative hydrological impact of these works appears inadequately assessed.

I am particularly concerned regarding:

- sediment transport during heavy rainfall;
- disturbance of existing drainage pathways;
- increased runoff rates;
- cumulative catchment pressure.

The receiving environment appears hydrologically connected to sensitive downstream aquatic systems associated with the Aughnaglanny and Multeen catchments.

The EIAR appears heavily reliant upon mitigation assumptions while insufficiently assessing worst-case scenarios or cumulative impacts.

9. ECOLOGY, AQUATIC SPECIES AND DOWNSTREAM RECEIVING ENVIRONMENT

The wider receiving environment supports sensitive aquatic habitats and protected species associated with the Lower River Suir SAC.

Concerns have already been raised regarding:

- Freshwater Pearl Mussel;
- Brook Lamprey;
- River Lamprey;
- Sea Lamprey;
- Atlantic Salmon;
- Otter;
- associated riverine habitats.

Freshwater Pearl Mussel populations are critically endangered and exceptionally sensitive to:

- sedimentation;
- hydrological disturbance;
- nutrient enrichment;
- deterioration in water quality.

The proposed development presents a credible risk of:

- sediment mobilisation;
- downstream turbidity;
- peat instability;
- cumulative ecological degradation.

The precautionary principle requires that uncertainty be resolved in favour of environmental protection.

10. WATER FRAMEWORK DIRECTIVE COMPLIANCE

The proposed development must comply with:

- the EU Water Framework Directive 2000/60/EC;
- the European Communities Environmental Objectives Regulations;
- and the non-deterioration principle.

Under Article 4 of the Water Framework Directive, competent authorities are legally obliged to:

- prevent deterioration of water bodies;
- protect aquatic ecosystems;
- and maintain or achieve good ecological status.

The Court of Justice of the European Union confirmed in the Weser Judgment (Case C-461/13) that development consent must be refused where a project may cause deterioration of a water body or jeopardise Water Framework Directive objectives.

The Court further confirmed that Member States are required to refuse authorisation for projects where deterioration risk cannot be excluded.

The Water Framework Directive therefore imposes a binding “non-deterioration” obligation on competent authorities.

Given:

- the scale of proposed excavation;
- hydrological uncertainty;
- sedimentation risk;
- and the sensitivity of the receiving environment,

I respectfully submit that the Board cannot presently conclude beyond reasonable scientific doubt that the proposed development complies with Water Framework Directive obligations.

11. HABITATS DIRECTIVE, PRECAUTIONARY PRINCIPLE AND EU LAW

The proposed development must also comply with:

- the Habitats Directive 92/43/EEC;
- the Birds Directive 2009/147/EC;
- the Environmental Impact Assessment Directive 2011/92/EU;
- Article 191 TFEU (Precautionary Principle);
- associated Irish implementing legislation.

The precautionary principle requires that where uncertainty exists regarding the potential for serious or irreversible environmental harm, doubt must be resolved in favour of environmental protection.

European environmental jurisprudence further establishes that competent authorities must be satisfied beyond reasonable scientific doubt that protected sites, ecological integrity and sensitive environmental receptors will not be adversely affected before development consent may lawfully be granted.

In my respectful submission, significant uncertainty remains regarding:

- cumulative operational impacts affecting receptor 109;

- hydrological interaction between the proposed turbine cluster and my groundwater source;
- cumulative noise exposure;
- the adequacy of receptor-specific assessment.

Accordingly, I respectfully submit that the precautionary principle should apply in full.

Relevant case law includes:

- Sweetman v An Bord Pleanála;
- People Over Wind v Coillte;
- O’Grianna v An Bord Pleanála;
- the Weser judgment.

These authorities collectively reinforce the requirement for:

- robust assessment;
- complete environmental information;
- lawful cumulative assessment;
- scientifically certain conclusions.

I respectfully submit that significant uncertainty remains regarding:

- cumulative operational noise;
- receptor-specific impacts at property 109;
- hydrology;
- groundwater vulnerability;
- ecological protection.

12. EIAR DEFICIENCIES AND OMISSIONS

I respectfully submit that the EIAR and associated documentation contain significant deficiencies including:

- absence of representative local noise monitoring for receptor 109;
- insufficient receptor-specific acoustic assessment;
- inadequate cumulative turbine interaction analysis;
- insufficient low-frequency noise assessment;
- absence of detailed receptor-specific hydrogeological assessment;
- insufficient assessment of traditional stone dwellings;
- insufficient consideration of vulnerable sensory receptors;
- inadequate cumulative hydrological assessment;
- excessive reliance on mitigation assumptions;
- insufficient assessment of long-term cumulative environmental effects.

The documentation does not appear to demonstrate beyond reasonable scientific doubt that significant adverse effects can be avoided.

13. REQUEST FOR ORAL HEARING

Given:

- the complexity of the issues involved;
- the scale of the proposed development;
- the potential impact on nearby residents;
- the hydrological and ecological sensitivity of the receiving environment;
- and the unresolved concerns regarding receptor 109,

I respectfully request that An Coimisiún Pleanála convene an Oral Hearing in respect of this application.

CONCLUSION

For the reasons outlined above, I respectfully submit that the proposed Carrow Wind Farm development gives rise to serious and unresolved concerns regarding:

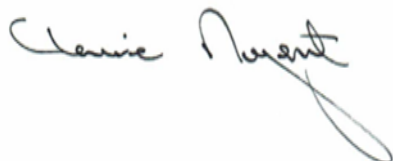
- residential amenity;
- cumulative turbine noise;
- amplitude modulation and low-frequency noise;
- shadow flicker;
- structural vulnerability;
- groundwater protection;
- hydrology;
- water quality;
- ecological integrity;
- compliance with Irish and European environmental law.

I respectfully submit that the applicant has failed to adequately demonstrate that these impacts can be satisfactorily avoided or mitigated.

Accordingly, I respectfully request that An Coimisiún Pleanála refuse permission for the proposed development.

Alternatively, I request that the Board require substantial redesign, enhanced setbacks, comprehensive independent review and significantly strengthened protective measures before any determination is made.

Signed:



Date: 27.05.2026
