

Barnaderg Cooloo Windfarm Action Collective CLG

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To	Sinead White, Executive Officer, An Coimisiún Pleanála - 64 Marlborough Street, Rotunda, Dublin 1, D01 V902
From	The Secretary, Barnaderg Cooloo Windfarm Action Collective CLG - Cooloo, Moylough, Co Galway
Your Ref	PAX07.323761 – Cooloo Wind Farm
Re	Response to Applicants Response to Submissions
Date	9th July 2026

Dear Ms White,

The Collective refers to your letter of the 5th of June last and your invite for us to make a submission or comment on the applicant's response to submissions submitted to ACP in February 2026. We the **Barnaderg Cooloo Windfarm Action Collective CLG** (The Collective) wishes to lodge the following submission in this regard on the proposed Cooloo Windfarm development, which is located in County Galway in the townlands of Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter, Lissavalley and Slievegorm.

Our Submission follows.

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Introduction

Submission to An Coimisiún Pleanála in relation to Cooloo Wind Farm ACP Ref. 323761

Prepared in response to the Commission's letter dated 5 June 2026 inviting submissions on the Applicant's responses to third-party observations and the Galway County Council report.

The Collective submits this response on behalf of our wider community in reply to the Applicant's responses to third-party observations. This submission is made with the full support of the local community, as demonstrated by the 200+ individual observations lodged in response to the original planning application. Given the limited timeframe provided to review the additional documentation and prepare a response, it has not been feasible for every individual who previously made a submission to respond again. Accordingly, this response represents the collective concerns of those members of the community.

1.1 Executive Summary

This submission is made in response to the Applicant's submissions of February 2026 addressing third-party observations and the report of Galway County Council.

Having reviewed those documents in conjunction with the original planning application, the Environmental Impact Assessment Report (EIAR), Natura Impact Statement (NIS), Planning Report and associated documentation, it is respectfully submitted that the Applicant has **not demonstrated that the proposed development satisfies the requirements of proper planning and sustainable development.**

While the Applicant repeatedly asserts that concerns raised by residents, prescribed bodies and Galway County Council have been "addressed" within the EIAR or Planning Report, the February 2026 responses do not materially resolve many of the substantive issues raised during the statutory consultation process.

In many instances the Applicant:

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- refers readers back to material already contained within the original application rather than addressing the criticisms made;
- relies upon assertions rather than providing additional technical evidence;
- proposes that important matters be addressed during detailed design or construction rather than before a planning decision;
- introduces explanations that are unsupported by additional survey work or independent verification; and
- seeks to minimise cumulative environmental effects without adequately demonstrating why the original assessments remain valid.

The Commission is not required to accept the Applicant's conclusions simply because they are repeated. Rather, the Commission must determine whether the information before it is sufficient to enable a lawful Environmental Impact Assessment and Appropriate Assessment and whether the proposed development represents proper planning and sustainable development.

This submission identifies a number of areas where significant uncertainty remains, including:

- interpretation of the Galway Local Area Renewable Energy Strategy (LARES);
- development proposed within lands identified as "Generally to be Discouraged";
- project splitting involving the wind farm, grid connection, substation and Battery Energy Storage System (BESS);
- peat stability and geotechnical uncertainty;
- groundwater and Public/Group Water Schemes protection;
- landscape and residential amenity;
- traffic assessment methodology;
- ecology and Appropriate Assessment; and
- the increasing reliance upon mitigation measures and post-consent investigations rather than demonstrating environmental acceptability at application stage.

Taken together, these matters indicate that the Applicant has not displaced the concerns raised by Galway County Council, prescribed bodies and numerous third-party observers. The Commission

should therefore attach limited weight to the Applicant's responses where they consist primarily of restatement rather than new evidence.

2. Response to Applicant's Responses to Third-Party Observations.

2.1 - Planning Policy and Legislation

Sections 2.1 to 2.4 of the applicant's response do not adequately cure the issues raised by third-party observers. The response relies heavily on assertion, cross-reference to the applicant's own planning material, and post-application reassurance. It does not provide enough site-specific evidence to demonstrate that the Cooloo proposal is acceptable having regard to the Galway County Development Plan, the Galway Local Authority Renewable Energy Strategy, public-participation requirements, land-control issues, project certainty, turbine-spacing concerns, and the separation of the grid connection, substation and battery energy storage system from the present application.

The Commission is therefore asked to treat the applicant's response with caution and to require further information, or refuse permission, where the unresolved issues pertain to legality, certainty, proper planning or environmental assessment of the proposed development.

2.1.1 Galway County Development Plan and LARES

The applicant does not overcome the local policy conflict.

The applicant acknowledges that observers raised the fact that part of the application site is designated as "Generally to be Discouraged" for wind energy development. The response attempts to minimise this by stating that the LARES does not specifically prohibit applications in such areas and that the proposal should be assessed on its merits. This is not an adequate answer. A "Generally to be Discouraged" designation is a material policy constraint. It cannot be treated as neutral simply because an application is not automatically prohibited.

A case-by-case assessment must still begin from the policy position adopted by Galway County Council. The applicant has not demonstrated, within this response, why a site within a discouraged area should be treated as suitable or exceptional. It relies on a broad statement that the site "scores well" across opportunity and sensitivity factors, but the response does not reproduce the scoring, the weighting, the constraints analysis, the assumptions used, or the site-specific reasons why the discouraged classification should be displaced.

The applicant's 400 MW shortfall argument is also inadequate.

The response argues that Galway has an insufficient quantum of favorably zoned land to meet the stated renewable-energy capacity target and that viable areas outside favorable policy areas should therefore be considered. This is a generic capacity argument, not a site-specific planning justification. The response does not demonstrate that all favorable or less sensitive areas have been exhausted, that repowering or alternative layouts have been assessed, or that the particular lands at Cooloo should be preferred despite their discouraged designation. National renewable-energy targets do not remove the requirement to apply the plan-led spatial strategy for wind energy.

The response also fails to grapple properly with other development-plan objectives.

Observers raised conflicts with policy objectives relating to natural heritage, biodiversity, wetlands and peatlands. The applicant's response merely refers back to the Planning Report and a policy table. That is insufficient where the same project also involves peatland, hedgerow, biodiversity, hydrology, road and grid-connection issues. The Commission should not accept a generic cross-reference as a substitute for a reasoned response to each relevant policy conflict.

2.1.2 Wind Energy Development Guidelines

The response relies on minimum formal compliance rather than modern impact assessment.

The applicant states that the 2006 Wind Energy Development Guidelines remain the relevant Section 28 guidance and that the development can comply with the draft 2019 guidelines. However, the response does not provide sufficient binding detail on how compliance will be secured in practice for a modern 180 metre tip-height development. The 2006 guidelines were prepared in the context of older and generally smaller turbine technology. The draft 2019 guidance,

although not yet adopted, reflects more current concerns on setback, shadow flicker, community consultation, noise and grid connections.

The applicant says planning authorities and the Commission are not bound to the provisions of the wind-energy guidelines. That statement does not answer the observers' concerns. The issue is not merely whether the project can satisfy the lowest enforceable standard, but whether the proposal is acceptable having regard to the scale of the turbines, the receiving community, the number of sensitive receptors, and the more stringent standards now recognised as relevant to modern wind-farm assessment.

The response should be required to identify specific, enforceable commitments on matters such as setback, shadow-flicker elimination, turbine curtailment, monitoring, complaint response, and post-consent compliance. A general statement that compliance is possible is not enough.

2.1.3 SEA, EIA and Habitats Directive

The applicant gives a narrow answer on SEA.

The applicant is correct that SEA applies to plans and programmes rather than individual planning applications. However, that does not dispose of the issue raised by objectors. The relevant issue is whether the applicant is seeking to undermine or bypass the SEA-informed county wind-energy strategy by promoting a project in an area designated as "Generally to be Discouraged". A project-level EIAR cannot substitute for the strategic environmental reasoning behind the adopted spatial wind strategy.

The EIA and AA response is mostly assertion.

The applicant states that the EIAR complies with the EIA Directive and that the AA Screening Report and Natura Impact Statement accompany the application. That does not address whether the assessment is sufficiently certain and complete where the grid connection, onsite substation and BESS are not included in this application and will be subject to a separate future application. The wind farm, grid connection, BESS and substation are functionally connected and should not be assessed in a way that leaves material design, consent, land-control, construction and maintenance issues unresolved.

The Commission should be satisfied that all likely significant effects have been assessed on a robust worst-case basis, including cumulative effects, indirect hydrological effects, peat and spoil management, tree and hedgerow removal, road works, grid works, BESS risks, construction traffic, permanent residual infrastructure and decommissioning obligations.

2.1.4 Project Splitting

The response confirms rather than resolves the concern.

The applicant confirms that the Proposed Grid Connection is not included in the present application and will be the subject of a separate application. At the same time, it states that the grid connection has been assessed in the EIAR as part of the overall Proposed Project. This creates a consent-certainty problem. The Commission is being asked to decide the wind-farm application before the integral grid infrastructure is itself before the Commission for consent.

The applicant's approach creates a risk that the wind farm could be approved while key infrastructure required to operate it remains uncertain. This includes the onsite 110 kV substation, BESS, 110 kV cabling, land rights, grid-route construction methodology, maintenance rights, permanent infrastructure after wind-farm decommissioning, and responsibility for mitigation measures. The fact that these elements are discussed in the EIAR does not make them part of the planning permission now sought.

The Commission should require the applicant to demonstrate that the wind farm and grid connection have been assessed and consented in a manner that avoids a piecemeal approach, ensures enforceable mitigation, and provides certainty on the full project that would actually be constructed and operated.

2.1.5 Unauthorised Development

The response is too limited.

The applicant states that it is not aware of unauthorised development within the proposed wind-farm site and that Galway County Council did not identify any enforcement cases. This is not the same as evidence that no unauthorised development exists. If unauthorised development has been

alleged, the applicant should provide a planning-history and enforcement due-diligence review for the relevant lands, including folios, structures, tracks, drainage works and any prior works within or connected to the proposed development area.

2.2 - Public Consultation and Community Engagement

2.2.1 Meaningfulness of Consultation

Information provision is not the same as meaningful consultation.

The applicant lists consultation activities, including the appointment of a Community Liaison Officer, email and phone contact, a public information event, postal information, contact with schools, GAA clubs and Moylough Community Council. This is a description of activity, not evidence that the consultation was meaningful, representative, responsive or capable of influencing the final design.

There was no communication with Killrerin GAA club, St Mary's GAA club or with Killrerin Community Council (other than to book the community Centre for their one and only public event).

The maps (with significant changes, including relocation of Substation and BESS) of the proposed windfarm were updated on the applicants website towards the end of 2024 but this was never communicated with the public until just before the planning application was submitted in September 2025

The response does not provide an issues-and-response tracker showing what concerns were raised, who raised them, what technical work was carried out in response, what design amendments were made, and why particular requests from residents were rejected. Without that evidence, the Commission cannot conclude that consultation was effective rather than merely procedural.

The timing of the September 2025 postal update is also important. If final project information was issued shortly before lodgement, it may have informed residents of the final proposal but did not necessarily provide a real opportunity to influence turbine layout, grid-route design,

BESS/substation arrangements, traffic proposals, mitigation measures or monitoring commitments before the application was made.

2.2.2 Engagement with Sensitive Local Receptors

The applicant does not show that the most affected residents and sensitive receptors were adequately engaged.

The response refers to engagement with schools, GAA clubs and community representatives. However, it does not demonstrate targeted engagement with all residents closest to the turbines, residents affected by the grid route, residents affected by turbine-delivery routes, people with sensory sensitivities or neurodivergent conditions, school transport providers, farming households affected by access and land-use disruption, or residents who may have limited online access to the application material.

The applicant should be required to provide a clear map-based consultation record showing the distance bands used, the households contacted, the dates of contact, the information provided, the response received, and any changes made. Without this, the claim of strong community engagement remains unproven.

2.2.3 Community Benefit Fund

Community benefit does not cure consultation deficiencies.

The applicant refers to the Community Benefit Fund and other economic benefits. These are not a substitute for adequate consultation. A benefit fund does not answer concerns about planning policy, environmental impacts, public participation, land control, turbine layout, project splitting, traffic disruption, noise, shadow flicker or document-access issues. The consultation assessment should stand on its own and should not be strengthened by reference to prospective financial benefits.

2.2.4 Newspaper Notice and Public Access to Documents

The response focuses on minimum statutory compliance rather than effective public notice.

The applicant states that notices were placed in the Connacht Tribune and the Irish Examiner, and that the Connacht Tribune is an approved newspaper. That may address a narrow statutory point, but it does not fully answer the objection that the notice did not effectively reach the local community most affected by the proposed development. Where a project is likely to have substantial local impacts, effective notice should be judged by practical accessibility as well as minimum formal compliance. The Tuam Herald would have been the ideal publication to communicate matters to the community if the aim was for meaningful communication and not just minimum statutory obligations.

The response also accepts two document-access problems: an issue viewing the NIS through the application website and a missing hyphen in the Irish Examiner notice web address. The applicant says the NIS issue was resolved and that the web address still directed users to the Commission's website. However, it does not provide the date on which the NIS problem arose, the date it was fixed, how long the public may have had impaired access, whether any residents reported difficulty, or whether the observation period should have been extended to avoid prejudice.

A further public-access concern arises from the applicant's later acknowledgement that certain figures in Chapter 6 were not included in the digital copy of the EIAR but were available in hard copy. That supports a broader concern that online application material may not have been complete or equally accessible. Public participation is not satisfied if important environmental information is available only to those able to inspect hard copies in person.

2.3 - Land Ownership and Usage

2.3.1 Landowner Consent and Roadside Works

The applicant does not provide sufficient land-control detail.

The applicant states that the lands opposite the proposed R332 site entrance are within the control of the Proposed Project and that a landowner consent letter has been acquired. However, the response does not provide a folio map, consent schedule, landowner identification, consent boundary, or a drawing showing the exact lands affected by overrun areas, hedgerow removal, hedge trimming, visibility splays, temporary works and ongoing maintenance obligations.

This is a material omission because turbine-delivery access and construction traffic depend on the availability of these lands. The Commission should require clear evidence that all lands required for construction, visibility, overrun, trimming and reinstatement are legally available and included in the application boundary or otherwise properly consented.

2.3.2 R328/R332 Error

The road-reference error should not be dismissed as harmless.

The applicant acknowledges that the EIAR and Traffic Management Plan incorrectly referred to the R328 instead of the R332. This is more than a typographical matter. Traffic mitigation, sightline assessment, hedgerow trimming, land-take, swept-path analysis and landowner consent are road-specific. An error in the road reference raises a quality-control concern and should prompt the Commission to scrutinise whether the associated traffic and land-control assessments are accurate and internally consistent.

2.3.3 Grid Connection Consents

The applicant answers the wrong question.

The applicant states that landowner consents are not required for the purposes of EIAR and that consents for the grid connection will be obtained later, where necessary, as part of the future grid application. This is too narrow. The issue is not simply whether landowner consent is technically required for the EIAR. The issue is whether the grid connection route assessed as part of the overall project is feasible, consentable and deliverable.

If the grid route, onsite substation and BESS are integral to the proposed wind farm, the Commission should require adequate certainty on land rights, road-opening requirements, joint bays, private lands, verges, hedgerows, drainage works, accommodation works, temporary construction areas, maintenance access, substation lands, BESS lands and long-term ownership arrangements. The applicant's reliance on a later application leaves these matters unresolved at the point when the wind-farm application is being determined. The windfarm success is highly contingent on being able to achieve connection and storage to maintain a stable grid. If the windfarm application is successful but grid connection is not feasible is there the possibility of

undue pressure on the planning authorities/politicians/communities and/or the use of a CPO to force the project to completion.

2.3.4 Reliance on Article 22(g)(ii)

The public-road argument does not cover all land-control issues.

The applicant refers to Article 22(g)(ii) of the Planning and Development Regulations in relation to grid works carried out in the public road by a statutory undertaker. That does not answer all landowner-consent concerns. It may not cover private lands, temporary working areas, road verges, hedgerow and tree removal, drainage alterations, joint bays, future maintenance access, BESS and substation lands, accommodation works or works carried out by or on behalf of the applicant before assets are taken in charge by a statutory undertaker.

The Commission should require a comprehensive land-control and consent matrix identifying every parcel or public-road section required for the proposed development, the legal basis for access, the party responsible for the works, and whether the works are included in the current application or deferred to the future grid application.

2.3.5 Farming and Land-Use Impacts

The response does not adequately address practical land-use effects.

The section is framed narrowly around landowner consent, but the observations also raise wider land-use concerns. The applicant does not adequately address impacts on farm access, livestock movement, fencing, drainage, water supply, field severance, safety during construction, road closures, turbine-delivery disruption, and long-term maintenance access. These matters are particularly relevant in a rural agricultural area and should be addressed in a practical, site-specific way.

2.4 - Project and Application Details

2.4.1 Proposed Grid Connection

The grid connection remains uncertain and outside the present application.

The applicant confirms that the Proposed Grid Connection is not included in this application and will be subject to a separate future application. The same section also confirms that the future grid application will include the onsite substation, BESS and grid connection required to connect the wind farm to the national grid. This confirms that the Commission is being asked to consider the wind-farm application before the full operational project is before it for consent.

This is a significant omission. The wind farm cannot operate as intended without the grid connection, substation and associated infrastructure. The applicant should not be permitted to treat those elements as integral for environmental assessment purposes but separate for consent purposes, unless the Commission is satisfied that all environmental effects, land-control issues, mitigation measures and long-term obligations are certain and enforceable.

2.4.2 Permanent Infrastructure After Decommissioning

The response raises unresolved decommissioning and ownership issues.

The applicant states that, following decommissioning of the wind farm, certain components of the Proposed Grid Connection, including underground cabling and the onsite substation, will remain in place as part of the electricity grid under ESB and EirGrid ownership and control. This raises important questions that are not answered in the response: when ownership would transfer, what legal agreements exist, who is responsible for maintenance, who is liable for environmental effects, whether landowners have consented to permanent infrastructure, whether removal will ever be required, and how these obligations will be secured if the wind-farm permission and grid permission are separate.

The Commission should require legally robust evidence on ownership, operational control, maintenance, decommissioning, residual infrastructure and financial security before accepting the applicant's approach.

2.4.3 Export Capacity and SID Threshold

The applicant responds with installed capacity rather than clear export-capacity evidence.

Objectors queried whether the output or export capacity of the wind farm would be below the 50 MW SID threshold. The applicant responds by stating that the wind farm would have a combined

maximum generating capacity between 54 MW and 64.8 MW and that the final turbine model will be selected later. This does not fully answer the issue. Installed turbine capacity is not necessarily the same as grid export capacity, maximum export capacity or contracted grid capacity.

The applicant should provide the grid offer, maximum export capacity, proposed turbine-rating range, any curtailment assumptions, and a binding commitment that the authorised development will remain above the relevant SID threshold. If the final turbine model and export arrangements are not fixed, the Commission should be satisfied that the development as authorised will not fall below the statutory threshold on which direct application to the Commission depends.

2.4.4 Section 37B Opinion

The pre-application SID opinion is not a complete answer.

The applicant relies on the Commission's Section 37B pre-application opinion that the Proposed Project constitutes strategic infrastructure development. That opinion does not remove the need for the final planning application to demonstrate that the project actually applied for meets the relevant threshold and is properly before the Commission. If material details such as final turbine rating, export capacity and grid arrangements remain uncertain, the Commission should not treat the pre-application opinion as determinative of all threshold and jurisdictional issues.

2.4.5 Turbine Spacing and Project Design

The response appears to answer a different point from the one raised.

Observers raised concerns that the proposed turbine locations do not comply with minimum separation distances between turbines. The applicant's response discusses minimum separation from adjacent wind-energy developments and states that there are no proposed, permitted or operational wind farms within 5 km, with the nearest turbine over 7.8 km away. That does not adequately answer the concern about spacing between the nine proposed Cooloo turbines themselves.

Both the 2006 and draft 2019 wind-energy guidance refer to general spacing principles of approximately three rotor diameters in the crosswind direction and seven rotor diameters in the prevailing downwind direction. For the applicant's stated rotor-diameter range of 150 m to 162 m,

this equates to approximately 450 m to 486 m crosswind and 1,050 m to 1,134 m downwind. The applicant does not provide a turbine-by-turbine spacing table, turbine coordinates, prevailing-wind-direction analysis, wake assessment, turbulence assessment, manufacturer confirmation or explanation of any deviations from these spacing principles.

This is a clear omission. The Commission should require the applicant to provide a turbine-spacing matrix for all proposed turbines, measured against both the 150 m and 162 m rotor scenarios, together with a wake and turbulence assessment demonstrating that the layout is technically appropriate and safe.

2.4.6 Matters the Commission Should Require Before Determination

The applicant should be required to provide the following further information before the application is determined:

- A site-specific planning justification explaining why a wind farm should be permitted in a "Generally to be Discouraged" area, including the full LARES scoring, assumptions and constraints analysis.
- A response to each relevant Galway County Development Plan objective on biodiversity, wetlands, peatlands, hydrology, landscape, residential amenity and rural land use.
- A clear explanation of how the wind farm, grid connection, onsite substation and BESS will be consented, constructed, operated, maintained, mitigated and decommissioned without project splitting.
- A grid-connection certainty statement, including route feasibility, land rights, public-road authority, private-land requirements, maintenance access, BESS/substation lands and ownership arrangements.
- A full land-control matrix and folio-based map showing all lands required for turbine delivery, road works, visibility splays, hedgerow trimming, overrun areas, temporary works, grid works and permanent infrastructure.
- A corrected traffic and access assessment addressing the R328/R332 error and confirming all road-specific mitigation, consents and swept-path assumptions.

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- A consultation issues-and-response tracker showing how local concerns influenced the design and mitigation of the project.
- Evidence that the NIS, EIAR and all figures were available digitally and without interruption during the public-consultation period, or an explanation of how any prejudice was remedied.
- A turbine-spacing matrix and wake/turbulence assessment for the proposed turbine layout, using both the minimum and maximum rotor-diameter scenarios.
- Clear evidence of installed capacity, export capacity, maximum export capacity and grid-connection arrangements demonstrating that the project meets the SID threshold as finally proposed.
- Legally enforceable commitments on shadow flicker, noise monitoring, curtailment, complaint response, community liaison, construction traffic and decommissioning obligations.

For the reasons set out above, sections 2.1 to 2.4 of the applicant's response should not be accepted as resolving the objections raised. The response does not adequately justify development in a "Generally to be Discouraged" wind-energy area, does not provide sufficient certainty on the separate grid-connection, substation and BESS application, does not fully address land-control and public-participation concerns, and appears to miss the specific objection on turbine spacing between the proposed turbines themselves.

The Commission should therefore require substantial further information and public re-consultation where appropriate. In the absence of such information, the unresolved issues should weigh against the grant of permission.

2.5 – Population & Human Health

2.5.1 Shadow Flicker

The Applicant's response acknowledges that 171 residential receptors are theoretically predicted to experience shadow flicker. This is a substantial number of affected properties and demonstrates that shadow flicker is not a negligible impact of the proposed development.

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The Applicant relies on future mitigation measures, including turbine shut-down software and screening vegetation, to argue compliance with the applicable guidelines. However, the applicant effectively accepts that significant impacts will occur unless post-consent mitigation is implemented

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The Applicant has not demonstrated:

- The practical effectiveness of mitigation at each affected receptor.
- The enforceability of mitigation measures over the 35-year operational life of the project.
- How vegetation-based mitigation can be guaranteed where planting may take years to establish or may be located on land outside the Applicant's control.
- How residents will be protected during the period before mitigation becomes effective.
- The Applicant also relies on the 2006 Wind Energy Development Guidelines, which were developed for substantially smaller turbines than those now proposed. The proposed turbines have a tip height of 180 meters and rotor diameters of up to 162 meters, representing a scale significantly greater than that contemplated by the 2006 guidance. The applicant has stated in relation to draft guidelines that ‘should they be adopted’ they can bring the proposed turbines “in line”. This shows that they understand that their current measures will result in shadow flicker, as the draft guidelines require zero shadow flicker occurrences.

The fact that turbine control software could potentially reduce shadow flicker does not remove the obligation to demonstrate that significant effects have been avoided at source through project design. The applicant has referenced their previous EIAR stating the they ‘will comply with the daily and annual shadow flicker recommended thresholds’ but it is not believed that this will be possible unless certain turbines are turned off for periods of time everyday and this will greatly impact on the effectiveness of the windfarm.

The Commission should therefore treat the shadow flicker assessment with caution and require independent verification of the modelling assumptions, affected receptor list, and mitigation effectiveness.

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2.5.2 Construction Phase Impacts

The Applicant acknowledges that significant disruption will occur during construction but relies primarily on future management plans rather than demonstrating how impacts will be avoided.

The response repeatedly references plans that will be finalised after consent, including detailed traffic management arrangements. This approach defers assessment of significant effects until after permission is granted, leaving no guarantees that the arrangements will eliminate impacts of locals.

The Applicant has not adequately demonstrated:

- The likely cumulative effect of prolonged construction activity on residents.
- The effect of abnormal load deliveries on vulnerable road users.
- The impact on schools, community facilities and local businesses.
- The impact of repeated construction traffic over the proposed construction period.
- The effect of construction-related stress, disturbance and reduced amenity on local residents.

Reliance on future management plans cannot substitute for a complete assessment at application stage.

The Applicant makes reference to ‘engagement with local people’ regarding traffic related matters and to a ‘Traffic management coordinator, an out of hours emergency number’. However they have failed to note when this engagement will take place and how the coordinator and out of hours emergency number will be implemented. This community is rooted in agriculture and it is not always possible to reroute and the additional traffic on local roads will no doubt have an impact on local farmers.

The Applicant states they ‘will rectify any damage’ caused to the existing road structure. This shows that they are aware that damage will be caused, but they fail to create a timeline for these repairs. It poses the question of will locals have to wait until the windfarm is operational before any repairs?

In relation to environmental protection the Applicant states that they ‘intend to minimise run-off from construction activities into nearby watercourses’. This shows that the Applicant does not intend to eliminate any contamination to the watercourses which could result in disruption to local water schemes as well as Irish Water.

The Applicant has stated that their CEMP ‘will be utilised to protect the receiving environment and watercourses’, however this is not possible. Much of the area that is proposed for development is bog land and some of it has been deemed to be ‘generally discouraged’. However it is clear to the collective that no management plan can protect the rural countryside and virgin bog from tonnes of concrete. This development is something which can never be removed in order to restore the current environment.

It is vital that An Comisiún Pleanála ensures that the correct protections and management plans are in place to ensure there is no impact on roads and the local environment.

2.5.3 Community Impact

Electricity Costs

When discussing the issue of rising electricity prices the Applicant states figures related to savings brought about by windfarms but these figures are not reflective of reality. The Applicant has failed to mention the large curtailment costs that are paid daily as a result of the grid not being equipped for the additional electricity. In addition they fail to mention the costs to update the grid.

Devaluation of Property

The Applicant seeks to dismiss concerns regarding property devaluation by relying on international studies while simultaneously acknowledging that the only Irish study identified a potential reduction in property values of 14.7% within one kilometre of a turbine. The Applicant characterises this study as limited due to sample size, although the sample size is relative to the proposed development, but provides no equivalent Irish evidence demonstrating that no effect exists.

The Applicant therefore cannot conclusively state that property devaluation will not occur.

Furthermore:

- Property value impacts are location-specific.
- International studies cannot automatically be applied to rural Galway.
- Perception of adverse effects can itself influence market behaviour regardless of the underlying cause.

The Applicant's conclusion therefore exceeds what the available Irish evidence supports. The onus is on the Applicant to prove beyond reasonable doubt that the concerns regarding devaluation are untrue.

Community Benefit Fund

The existence of a Community Benefit Fund cannot be treated as mitigation for environmental or human health impacts. The planning merits of a development must be assessed independently of financial incentives.

The Applicant acknowledges that the Community Benefit Fund is linked to future operational arrangements and government support mechanisms. While commitments are described, the details of governance, accountability, enforcement and long-term delivery remain uncertain. In addition to this the Applicant notes that 'nearby communities' will benefit from this fund but as a result of the proposed development being in rural Galway this might mean that the community that is impacted most will not benefit the most.

The Applicant makes reference to the employment opportunities for the proposed development but fails to note how many workers would be from the actual locality. They also state that another benefit is the transfer of skills from some workers to locals but this cannot be seen as a given, as yet again there are no guarantees that any locals will be employed by the development.

The Applicant states that the local area will benefit as a result of the landowners receiving their rental income. This cannot be seen as definite. Many of the landowners will actually lose money as a result of land changing from its original agricultural use, and long term this land may not be

usable after decommissioning as a result of the wake effect. But it is also important to note that the Applicant cannot state with certainty where or how the landowners will use the new income. Furthermore the Applicant stating that significant funds will be paid to Galway County Council does not directly link to the community benefiting. There is no guarantee that any of these funds will be redirected into the community.

Community payments do not negate potential impacts on residential amenity, health, landscape, biodiversity or quality of life.

2.5.4 Human Health Assessment

The Applicant places significant reliance on general international literature reviews that conclude no proven direct causal relationship exists between wind turbines and adverse health effects. The Applicant has not directly linked any of their responses to the HSE which is Ireland's national health service.

However, the relevant planning question is not whether turbines directly cause disease, but whether the development may adversely affect human health and quality of life through recognised pathways including:

- Noise.
- Sleep disturbance.
- Visual intrusion.
- Shadow flicker.
- Stress and anxiety.
- Loss of residential amenity.
- Community conflict and social impacts.

The World Health Organisation recognises that environmental noise can contribute to annoyance, sleep disturbance and reduced wellbeing.

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The Applicant's response largely focuses on whether turbines directly cause medical illness while giving insufficient consideration to indirect health impacts associated with long-term environmental exposure.

Neurodiverse and Sensitive Receptors

The Applicant acknowledges that individuals with Autism and other neurodivergences may experience heightened sensitivity to noise and environmental stimuli. However, no receptor-specific assessment has been presented for Neurodivergent individuals, individuals with sensory processing difficulties or people with chronic neurological conditions.

The Applicant then relies on general population studies that do not specifically assess:

- Rural wind farm environments.
- Large modern turbines.
- Long-term exposure.
- Children with sensory processing difficulties.
- Neurodivergent individuals living or being in school near turbines.

Merely acknowledging heightened sensitivity while relying on general population studies does not constitute an adequate assessment of vulnerable receptors. This is particularly relevant given the increasing recognition within environmental assessment practice that vulnerable populations may experience effects differently from the general population.

It is important to note that people from a neurodivergent background are all different and generalizations about the impact on groups cannot be seen as effective assessment of impact on individuals.

The Applicant has presented no evidence that they have conducted a dedicated assessment of vulnerable groups within the area. Stating that a community liaison will be available to help discuss and review logs of impacts is not sufficient. If a child or a family are impacted by the turbines the process of collecting 5 days of logs, having these logs reviewed, a possible field inspection and then a discussion of mitigation measures would prove to be very lengthy and may result in extreme dysregulation and impacts for all in the household.

In relation to the special needs bus service in the area the Applicant proposes ‘diversions’ and talks about ‘disruptions’. Again, it is clear that the applicant has not conducted a dedicated assessment of this service and the impacts that a diversion or delay may have on the users of the service. Not all users of the service are simply able to cope with being on the service longer than usual, or they may not cope with a change in routine.

The Applicant references to diversions onto other local roads while roads are closed for works. However, what they have failed to adequately assess is the driving conditions on these roads. Many of the communities’ local roads do not allow for 2 way traffic and rely on users pulling in or reversing to allow others to pass. This has not been thought of in relation to farmers, haulage or buses. It is also worth noting that not all local roads in the community are of a safe driving standard with some having large potholes, blind corners, blind hills and concealed entrances.

Depopulation

In relation to the depopulation of areas with windfarms the Applicant has failed to provide any evidence disproving the claim. The collective are aware of cases whereby developers have objected to local’s building, and also where banks have refused mortgages as a result of devaluation. The absence of evidence is not the evidence of absence.

2.5.5 Conclusion

Section 2.5 does not adequately address concerns regarding human health and residential amenity. The Applicant relies heavily on future mitigation measures, management plans and general international studies while failing to fully assess site-specific impacts on affected residents. The Commission should therefore attach limited weight to the Applicant's conclusions regarding Population and Human Health and should require further independent assessment of shadow flicker impacts, vulnerable receptor effects, residential amenity impacts and long-term community wellbeing before determining the application.

In addition to this the Applicant repeatedly argues that no credible evidence has been presented that would alter the conclusions of the EIAR. This reverses the burden of proof. Under European

environmental law and the precautionary principle, the burden rests on the Applicant to demonstrate that significant adverse effects have been adequately assessed and mitigated. Where uncertainty remains regarding shadow flicker, vulnerable populations, long-term quality of life impacts or cumulative health effects, the Commission should adopt a precautionary approach acting in respect of the common good and rights of the people.

A recurring weakness throughout Section 2.5 is the reliance on mitigation measures that would be developed, refined or implemented after planning permission is granted.

Examples include:

- Traffic management arrangements.
- Shadow flicker controls.
- Complaint response procedures.
- Turbine operational controls.

The EIA process requires likely significant effects to be assessed before consent is granted.

The Applicant's approach frequently assumes impacts can be managed later rather than demonstrating that they have been adequately avoided or reduced through project design. This is particularly important where 171 receptors are already predicted to experience shadow flicker.

The burden rests on the Applicant to demonstrate that likely significant effects have been properly assessed and that uncertainty has been reduced to an acceptable level.

We urge An Comisiún Pleanála to apply a precautionary approach and to not accept the assumptions which are provided from generic international literature.

2.6 – Biodiversity

We respectfully submit that the applicant's response to biodiversity concerns does not resolve the serious ecological and legal risks arising from the proposed Cooloo Wind Farm. The response repeatedly relies on mitigation, future monitoring and habitat enhancement, while also acknowledging residual significant effects on sensitive peatland habitats.

The most serious weakness is the applicant's treatment of Annex I peatland habitat. The response confirms that the proposed floating road between T7 and T9 would affect mapped Article 17 raised bog habitat and that residual significant effects on peatland habitats are anticipated at County level. It also acknowledges alteration of drainage within approximately 50–100m of the proposed T7–T9 access road. This is not a minor matter. Under the EU Habitats Directive, degraded or previously damaged habitat is not disposable habitat. Degraded raised bog capable of restoration remains ecologically important and should not be further fragmented, drained or disturbed.

The applicant's argument that the bog has already been cut, drained or degraded is not a sufficient defence. EU nature law requires protection, restoration and avoidance of further deterioration. The fact that a habitat has suffered historic damage strengthens the case for refusal, rather than justifying additional infrastructure through it.

The response also fails to remove uncertainty regarding Marsh Fritillary, an Annex II species. The presence of larval webs near proposed infrastructure demonstrates that suitable breeding habitat exists within the development area. The applicant relies on fencing, signage, an Ecological Clerk of Works and proposed future creation of habitat. These measures do not adequately address the risk of hydrological change, dust, disturbance or long-term alteration of the food plant habitat. Habitat creation after consent cannot be treated as equivalent to avoiding damage to existing occupied or suitable habitat.

In relation to bats, the applicant accepts that all Irish bat species are strictly protected under Article 12 of the Habitats Directive and that collision, barotrauma, roost disturbance and habitat connectivity are relevant impact pathways. However, the response relies heavily on post-construction monitoring and adaptive mitigation. This approach is legally weak. Strict protection requires the competent authority to be satisfied before permission is granted that the project will not result in prohibited killing, disturbance or deterioration of breeding/resting places. Future monitoring does not cure uncertainty at consent stage.

The ornithology response is also deficient. In particular, the proposed use of tethered bird-control kites for Golden Plover is not a proven wind-farm collision mitigation measure. The applicant

expressly acknowledges that this method has not had the opportunity to be tested for reducing collisions at wind farms. It is therefore inappropriate to rely on this measure to reduce predicted collision risk for protected bird species.

The applicant's response further fails to adequately resolve concerns regarding the Lough Corrib SAC/SPA, including potential downstream hydrological impacts and impacts on Special Conservation Interest species. Under Article 6(3) of the Habitats Directive, permission may only be granted where the competent authority is certain, beyond reasonable scientific doubt, that the project will not adversely affect the integrity of any European site. That standard has not been met.

For these reasons, I submit that the biodiversity response remains inadequate. The proposal conflicts with the precautionary principle, the Habitats Directive, the Birds Directive, and the obligation to avoid deterioration of protected habitats and disturbance or mortality of protected species. The application should therefore be refused.

2.7 – Land, Soils, Geology, Peat Stability and Karst

The Applicant's response does not resolve the fundamental concerns raised regarding peat stability, geotechnical risk or the extensive karst landscape underlying the proposed development. Rather than demonstrating that the site is suitable for a development of this scale, the response repeatedly relies upon future investigations, construction-stage monitoring, contractor inspections and mitigation measures to justify development.

This approach is contrary to the fundamental purpose of the Environmental Impact Assessment process. An Coimisiún Pleanála must determine whether the receiving environment is suitable for development based upon complete environmental information available before consent is granted. It is not sufficient to postpone critical investigations until the detailed design or construction phases.

2.7.1 Deferred investigations demonstrate continuing scientific uncertainty

Perhaps the most significant admission contained within the Gavin & Doherty Geosolutions response is that further inspections, testing and confirmation of site conditions will still be required during detailed design and construction.

The response states that:

- further inspections will be undertaken;
- inspection and testing criteria will be developed by the contractor;
- confirmatory investigations will be required;
- monitoring will continue during construction.

These are not merely routine construction activities. They demonstrate that important assumptions underpinning the Peat Stability Risk Assessment and Karst Risk Assessment have not yet been fully verified.

Where additional investigations are required to validate the conclusions of an environmental assessment, it cannot reasonably be argued that all reasonable scientific doubt has been removed. The Board cannot lawfully defer essential aspects of environmental assessment to the construction stage where those matters influence whether development should proceed in the first place.

The repeated reliance upon future investigation is therefore inconsistent with the Precautionary Principle and the requirements of the Environmental Impact Assessment Directive.

2.7.2 Reliance upon mitigation cannot establish environmental acceptability

Throughout the response the Applicant repeatedly concludes that risks become acceptable only after mitigation has been implemented.

The Applicant does not demonstrate that the site itself presents negligible environmental risk.

Instead, the assessment concludes that:

- mitigation measures;
- construction controls;
- monitoring;

- inspection plans;
- contractor management procedures; and
- confirmatory investigations

will collectively reduce the identified risks. This represents a fundamental weakness.

The purpose of an Environmental Impact Assessment is first to establish whether the receiving environment is suitable for development. Mitigation measures may reduce identified impacts but cannot compensate for uncertainty regarding baseline environmental conditions.

The Applicant therefore places significant reliance upon engineering controls rather than demonstrating that the development is inherently appropriate for this environmentally sensitive landscape.

2.7.3 Limited deep ground investigation remains a significant weakness

Although the Applicant states that 344 investigation locations were completed, this figure largely consists of shallow peat probes.

The response confirms that only:

- two rotary boreholes,
- twenty-seven trial pits, and
- limited geophysical surveys

were undertaken to investigate the deep geological profile of a 355-hectare wind farm containing nine turbines, extensive floating roads, heavy crane hardstands and a Battery Energy Storage System.

Rotary boreholes provide the principal means of confirming:

- bedrock profile;
- deep geological conditions;
- karst voids;
- groundwater interaction;
- foundation suitability.

Given the extensive karst geology known to occur throughout east Galway, together with significant peat deposits across the site, two boreholes cannot reasonably be considered a comprehensive investigation for infrastructure of this scale.

2.7.4 Deep peat remains present throughout the development

The Applicant acknowledges that peat depths reach approximately 7.1 metres across parts of the site and that the proposed floated access road between Turbines T7 and T9 traverses peat recorded at up to 6.8 metres deep.

These are not isolated pockets of shallow peat but extensive deposits associated with raised bog. The Applicant seeks to characterise these areas as suitable for engineering solutions rather than recognising them as environmentally sensitive habitats whose disturbance carries significant long-term hydrological consequences.

Deep peat is internationally recognised as a substantial carbon store, a hydrological regulator and a protected ecological resource. Avoidance should remain the primary mitigation measure. Engineering solutions should not become a substitute for site selection.

2.7.5 Failure to assess extreme rainfall scenarios

Objectors criticised the absence of:

- transient rainfall modelling;
- coupled hydro-geotechnical modelling;
- climate-driven slope sensitivity analysis;
- sensitivity testing using weaker peat strength assumptions.

The Applicant does not undertake these additional analyses. Instead, reliance is placed upon compliance with Scottish guidance. This response fails to address increasing rainfall intensity associated with climate change and lessons arising from previous peat failures including Derrybrien and Meenbog. The omission of these analyses is particularly concerning given that hydrological change represents one of the principal mechanisms capable of triggering peat instability.

2.7.6 Bog burst mechanisms remain incompletely assessed

The Applicant acknowledges that raised bog environments may experience bog burst failures and further accepts that these mechanisms are not fully represented by conventional Factor of Safety calculations.

This is a significant admission.

If one of the principal mechanisms of peat failure cannot be fully quantified by the adopted assessment methodology, the conclusion that overall peat stability risk is negligible cannot be regarded as definitive.

The existence of uncertainty should instead invoke the Precautionary Principle.

2.7.7 Karst Assessment

The Karst Risk Assessment similarly fails to remove significant uncertainty.

The Applicant expressly states that the Karst Risk Assessment is limited solely to geotechnical considerations and does not assess impacts upon groundwater or hydrogeology.

This artificial separation is difficult to reconcile with the nature of karst systems themselves.

Karst landscapes are governed by groundwater movement.

Ground stability, groundwater pathways, spring discharge, water quality and subsurface void development are fundamentally interconnected.

By separating geotechnical assessment from hydrogeological assessment, the Applicant fails to assess the functioning of the karst system as a whole.

2.7.8 High karst hazard has been identified

The Applicant acknowledges that:

- areas of high karst hazard;
- areas of very high karst hazard;
- Turbine T4; and
- sections of associated access road

are all located within areas of elevated karst risk before mitigation.

Rather than avoiding these areas, the proposal seeks to manage the identified hazards through engineering mitigation.

This again represents mitigation replacing avoidance. The Planning Authority should question whether major infrastructure should be located within known areas of elevated karst hazard when alternative layouts or locations may avoid such risks entirely.

2.7.9 Confirmatory investigation after permission is unacceptable

The Karst Risk Assessment concludes that additional confirmatory ground investigations remain necessary before risks can be fully refined. This is perhaps the clearest indication that environmental assessment remains incomplete.

Planning permission should not be granted on the basis that geological risks will be investigated more thoroughly after consent has already been issued. Such an approach reverses the purpose of environmental assessment.

2.7.10 Failure to Apply the Precautionary Principle

Taken collectively, the Applicant's responses reveal a consistent pattern.

The development is considered acceptable because:

- future investigations will be undertaken;
- monitoring will occur;
- mitigation will be implemented;
- contractors will inspect conditions;
- risks will be refined during construction.

This is inconsistent with the Precautionary Principle, which requires that where reasonable scientific uncertainty exists regarding the possibility of significant environmental harm, consent should not be granted until that uncertainty has been resolved.

The Applicant has failed to demonstrate beyond reasonable scientific doubt that disturbance of deep peat, construction of floating roads, extensive excavation and development within a complex karst environment can proceed without significant adverse environmental effects. Instead, the documentation confirms that critical uncertainties remain. In these circumstances, the burden of proof has not been discharged.

Accordingly, I respectfully submit that the proposed development is contrary to the objectives of the Environmental Impact Assessment Directive, the Habitats Directive, the precautionary approach embedded within European environmental law, and the principles of proper planning and sustainable development.

For these reasons, An Coimisiún Pleanála should refuse permission for the proposed development.

2.8 – Hydrology and Hydrogeology

Having reviewed the Applicant's Response to Third Party Submissions together with Appendix 2 (Hydro-Environmental Services Response), it is respectfully submitted that significant matters remain unresolved regarding the hydrological and hydrogeological assessment of the proposed development.

While the Applicant has provided rebuttals to third-party observations, the response largely consists of disagreement with those observations rather than the provision of additional technical evidence capable of removing reasonable scientific doubt regarding the potential effects on groundwater, public water supplies, groundwater-dependent ecosystems and European sites.

The following matters remain outstanding.

2.8.1 Hydrogeological Conceptual Model

The Applicant continues to rely upon a conceptual model that concludes that groundwater beneath the site is poorly developed, has limited karstification and is predominantly controlled by surface water processes.

However, the response provides no revised conceptual hydrogeological model demonstrating:

- groundwater recharge mechanisms;
- groundwater flow pathways;
- interaction between peat, superficial deposits and limestone;
- groundwater discharge;
- interaction with surrounding public water supplies.

Instead, the Applicant simply repeats the original conclusions of the EIAR. Accordingly, insufficient evidence has been provided to demonstrate that the conceptual hydrogeological model accurately represents groundwater behaviour beneath the site.

2.8.2 Karst Interpretation

The Applicant states that no significant karst was encountered during investigations.

However:

- no comprehensive site-wide karst interpretation has been produced;
- no integrated karst mapping has been supplied;
- no interpretation of epikarst distribution has been provided;
- no geological cross sections illustrating interpreted karst have been prepared.

The absence of evidence is not evidence of absence.

The response therefore fails to demonstrate beyond reasonable scientific doubt that significant karst pathways are absent beneath the proposed infrastructure.

2.8.3 Adequacy of Site Investigation

The Applicant relies heavily upon:

- two boreholes,
- trial pits,
- peat probes,
- selected geophysical surveys.

However, these investigations remain spatially limited when considered against:

- approximately 355 hectares;

- nine turbine foundations;
- crane pads;
- extensive access roads;
- peatland;
- limestone bedrock.

The response repeatedly states investigations were "sufficient" but provides no quantitative justification demonstrating why this investigation density is adequate.

2.8.4 Public Water Supplies

The Applicant concludes there will be no significant effects upon:

- Mid Galway Public Water Supply;
- Barnaderg Gortbeg Group Water Scheme;
- Brierfield Group Water Scheme.

However, these conclusions remain largely qualitative.

The response does not provide:

- updated groundwater modelling;
- tracer investigations;
- quantitative source vulnerability analysis;
- sensitivity analysis;
- uncertainty assessment.

The conclusions therefore remain assertions rather than demonstrated findings.

2.8.5 Groundwater Flow

The Applicant states that groundwater flow is poorly developed because:

- peat is extensive;
- groundwater levels are shallow;
- drainage density is high.

These observations do not, of themselves, demonstrate the absence of preferential groundwater flow beneath the superficial deposits.

- No groundwater contour map has been provided.
- No groundwater flow model has been prepared.
- No conceptual groundwater flow map has been produced.
- Accordingly, groundwater pathways remain insufficiently demonstrated.

2.8.6 Surface Water / Groundwater Interaction

The Applicant disputes that strong groundwater/surface water interaction exists.

However no quantitative assessment has been produced showing:

- seasonal interaction;
- recharge variability;
- groundwater contribution to streams;
- groundwater dependence of receiving waters.

Given the protected water supplies downstream, additional clarification remains necessary.

2.8.7 Karst Construction Protocol

Unlike many developments within limestone environments, no comprehensive Karst Protocol has been produced. Such a protocol should include:

- foundation inspections;
- road excavations;
- trench inspections;
- procedures for unexpected karst discovery;
- engineering responses;
- reporting procedures;
- decision flow charts.

Without such procedures there remains uncertainty regarding construction risks.

2.8.8 Groundwater Monitoring

The Applicant relies primarily upon baseline investigations.

No enhanced groundwater monitoring programme has been proposed incorporating:

- trigger levels;
- contingency measures;
- groundwater quality thresholds;
- monitoring frequency during construction.

2.8.9 Hydrogeological Cross Sections

No conceptual cross sections have been prepared showing:

- peat;
- overburden;
- limestone;
- groundwater table;
- interpreted karst;
- public water supplies;
- hydraulic connectivity.

Such drawings would significantly improve understanding of the hydrogeological system.

2.8.10 Drainage Design

The Applicant relies upon mitigation measures.

However detailed hydraulic calculations have not been produced demonstrating:

- capacity of attenuation measures;
- extreme rainfall events;
- climate change allowances;
- infiltration assumptions;
- long-term operational performance.

2.8.11 Scientific Uncertainty

The Applicant's responses frequently conclude that:

"no significant effects will occur"

However these conclusions are generally unsupported by:

- uncertainty analysis;
- sensitivity testing;
- alternative conceptual models;
- probabilistic assessment.

Accordingly, reasonable scientific doubt remains regarding the robustness of the conclusions.

2.8.12 Matters Remaining for the Commission's Determination

Having regard to the Applicant's Response to Submissions, it is respectfully submitted that significant uncertainty remains regarding:

- the hydrogeological conceptual model;
- the extent of karstification beneath the site;
- groundwater flow pathways;
- protection of Mid Galway Public Water Supply;
- protection of Barnaderg Gortbeg Group Water Scheme;
- protection of Brierfield Group Water Scheme;
- groundwater/surface water interaction;
- drainage design;
- construction within a karst environment.

The Applicant's response primarily reiterates conclusions contained within the original EIAR rather than providing the additional technical evidence necessary to fully address the issues raised by third-party submissions.

Accordingly, the Commission should give careful consideration as to whether further clarification or additional hydrogeological information is required before it can be satisfied, beyond reasonable scientific doubt, that the proposed development would not adversely affect groundwater resources, protected water supplies, European sites, or the receiving water environment.

2.9 – Noise

Technical Response to TNEI Noise Assessment

2.9.1 Introduction

This chapter provides a detailed response to the Applicant's noise assessment prepared by Technical Noise & Environmental Consultants (TNEI) as part of the Applicant's Third Party Submissions Response.

The review focuses on whether the Applicant has adequately demonstrated, through site-specific assessment and robust predictive analysis, that the proposed development will not give rise to significant adverse noise effects on residential amenity.

The assessment is considered in the context of:

- The Environmental Impact Assessment Report (EIAR);
- TNEI's Noise Assessment Response;
- Applicable Irish and international guidance; and
- Relevant planning and environmental assessment principles.

Where appropriate, direct reference is made to statements contained in the TNEI response.

2.9.2 Reliance on the Wind Energy Development Guidelines (2006)

TNEI places significant reliance on the Wind Energy Development Guidelines for Planning Authorities (2006) as the primary basis for the noise assessment methodology. The response asserts that these Guidelines remain the appropriate standard for wind turbine noise assessment in Ireland.

It is accepted that the 2006 Guidelines remain in force and are widely applied in planning assessments. However, continued reliance on these Guidelines does not, in itself, establish that they are sufficient to fully assess the potential environmental effects of modern wind turbines of the scale proposed in this development.

The turbines proposed in the present application are significantly larger, both in hub height and rotor diameter, than those typically envisaged when the 2006 Guidelines were prepared. The Guidelines therefore represent a minimum policy framework rather than a comprehensive demonstration of environmental acceptability in all circumstances.

The Environmental Impact Assessment process requires that likely significant effects be assessed in the context of the receiving environment and the characteristics of the proposed development, not solely in terms of compliance with dated guidance.

Accordingly, compliance with the 2006 Guidelines should not be interpreted as conclusive evidence that residential amenity will be protected under all operational conditions.

2.9.3 ETSU-R-97 Methodology

TNEI relies upon ETSU-R-97 as the underlying assessment framework for operational wind turbine noise.

While ETSU-R-97 remains widely used in wind energy assessment, it is based on assumptions regarding turbine technology and operational characteristics that predate modern large-scale turbines.

A key limitation of ETSU-based assessment is that it focuses on averaged noise levels (LA90,10min) and does not fully capture more complex noise characteristics such as:

- Amplitude modulation;
- Intermittency effects;
- Low-frequency fluctuations; and
- Temporal variation under stable atmospheric conditions.

These characteristics are frequently cited in relation to noise annoyance at operational wind farms, even where compliance with ETSU-derived limits is achieved.

The reliance on ETSU-R-97 therefore provides a baseline assessment but does not, in itself, demonstrate that all relevant noise impacts have been fully characterised.

2.9.4 Predictive Noise Modelling and Assumptions

TNEI states that predictive noise modelling demonstrates compliance with relevant noise criteria and therefore concludes that significant effects are unlikely.

However, predictive modelling is inherently dependent upon the assumptions used. The reliability of conclusions therefore depends on whether those assumptions accurately represent worst-case operational conditions.

The Applicant's response does not fully set out or critically examine the following modelling parameters:

- Atmospheric stability classes and frequency of stable night-time conditions;
- Wind shear profiles and their effect on downwind propagation;
- Ground absorption coefficients across varied land cover;
- Terrain modelling resolution and shielding effects;
- Operational modes of turbines under different wind speeds;
- Cumulative operational scenarios across the full wind farm site;
- Receptor selection completeness, including all sensitive dwellings.

In the absence of detailed justification of these assumptions, it is not possible to independently verify that the modelling represents conservative worst-case conditions rather than average or typical operating scenarios.

This is particularly relevant given that wind turbine noise impacts are often most pronounced under stable night-time atmospheric conditions, which are not always fully captured in standard modelling approaches.

2.9.5 Amplitude Modulation

TNEI acknowledges that amplitude modulation (AM) may occur but concludes that it is unlikely to be significant in this case.

Amplitude modulation is widely recognised as a key factor in noise annoyance associated with wind turbines. It is characterised by periodic variation in sound level, often perceived as “swishing” or “thumping”.

While ETSU-based assessment does not explicitly model AM, its occurrence in operational wind farms has been documented in peer-reviewed literature and in operational experience across multiple jurisdictions.

The Applicant’s response does not provide:

- A site-specific assessment of the likelihood of amplitude modulation;
- Analysis of meteorological or topographical conditions that may influence AM occurrence;
- Assessment of cumulative AM effects from multiple turbines operating simultaneously; or
- A defined monitoring or mitigation strategy should enhance AM occurrence post-construction.

In the absence of such analysis, the conclusion that amplitude modulation will not result in significant effects is not fully substantiated by project-specific evidence.

2.9.6 Low Frequency Noise and Infrasound

TNEI concludes that low frequency noise and infrasound are not expected to result in adverse effects. While the majority of scientific literature indicates that infrasound from modern turbines is below the threshold of audibility, low-frequency noise remains relevant in terms of perception and annoyance.

The relevant planning question is not solely whether measurable health effects occur, but whether the development may give rise to adverse effects on residential amenity, including sleep disturbance and reduced quality of life.

The Applicant's response does not fully engage with the distinction between:

- measurable acoustic thresholds; and
- human perception and annoyance responses under real-world conditions.

Accordingly, this aspect of the assessment remains based primarily on general literature rather than site-specific evaluation.

2.9.7 WHO Environmental Noise Guidelines

TNEI states that the World Health Organization Environmental Noise Guidelines (2018) should not be treated as an assessment methodology and therefore attributes limited weight to them. While it is correct that the WHO Guidelines are not a planning standard, they represent the most recent international synthesis of evidence on environmental noise and health outcomes.

The Guidelines identify environmental noise as a risk factor for sleep disturbance and annoyance at lower levels than those set out in ETSU-R-97. The Planning Authority is entitled to have regard to this evidence when assessing whether the Environmental Impact Assessment adequately considers likely significant effects on residential amenity.

The WHO Guidelines therefore remain relevant contextual evidence, even if they are not directly transposed into Irish planning thresholds.

2.9.8 Operational Experience and Comparable Developments

TNEI argues that complaints or operational issues at other wind farms are not directly relevant to the assessment of this proposal. While each development must be assessed on its own merits, operational experience from comparable developments provides valuable evidence regarding real-world performance of predictive models and the occurrence of phenomena such as amplitude modulation and low-frequency noise.

Such evidence is particularly relevant where predictive models rely on assumptions that may not fully capture complex atmospheric and operational conditions. Accordingly, operational experience should be considered as supporting contextual evidence rather than being dismissed entirely.

2.9.9 Webster & Rollo v. Meenaclogher Wind Farm Ltd.

TNEI distinguishes the High Court judgment in Webster & Rollo v. Meenaclogher Wind Farm Ltd. on the basis that it relates to private nuisance rather than planning law.

While this distinction is correct, the judgment remains relevant insofar as it demonstrates that compliance with planning conditions and predictive assessments does not necessarily prevent significant adverse effects in practice.

The case illustrates the limitations of predictive modelling in fully capturing operational impacts, and therefore supports the need for careful scrutiny of modelling assumptions at the planning stage.

2.9.10 Overall Assessment of TNEI Noise Conclusions

The TNEI response concludes that noise impacts will be acceptable based primarily on:

- compliance with ETSU-R-97 derived criteria;
- adherence to the 2006 Wind Energy Guidelines; and
- predictive noise modelling results.

However, the analysis does not fully address:

- the limitations of ETSU-based methodologies in capturing modern turbine characteristics;
- uncertainty in modelling assumptions under worst-case conditions;
- site-specific factors influencing amplitude modulation;
- operational experience from comparable developments; and
- the distinction between compliance and actual residential amenity outcomes.

In this context, while compliance with established guidance is acknowledged, it does not in itself demonstrate that all likely significant effects have been fully identified, assessed, and mitigated.

2.10 – Climate

Overview

The applicant's Climate response (Section 2.10) is superficial, incomplete, and fails to meet the legal, scientific, and policy standards required under the Climate Action and Low Carbon Development Act 2021, the EIA Directive, and established EU case law. Their treatment of climate impacts is limited to generic assertions about renewable energy benefits, while ignoring the project's actual carbon liabilities, peatland emissions, cumulative effects, and statutory obligations under Ireland's carbon budgets.

The applicant's response does not constitute a climate assessment capable of supporting a lawful decision under Section 37E of the Planning and Development Act.

2.10.1 Failure to Address Statutory Carbon Budget Obligations

The applicant repeatedly asserts that the project "supports national climate targets" and "aligns with the Climate Action Plan". This is incorrect.

Under the Climate Action and Low Carbon Development Act 2021, Ireland's climate governance system is legally binding. It requires:

- compliance with five-year carbon budgets,
- assessment of sectoral emissions ceilings,
- demonstration that any proposed development does not undermine the State's pathway to a climate-neutral economy.

The applicant provides no analysis whatsoever of:

- construction emissions relative to the Electricity Sector Carbon Budget;
- peatland disturbance emissions;
- embodied carbon in concrete, steel, and access roads;
- cumulative emissions from the grid connection and BESS;
- whether the project is consistent with Ireland's legally binding carbon ceilings.

A generic statement that “renewable energy is positive for climate” does not satisfy statutory obligations. The Board must assess actual emissions, not aspirational benefits.

2.10.2 Misrepresentation of Peatland Carbon Impacts

The applicant claims peat disturbance will be “negligible” and “fully mitigated”. This is scientifically and legally untenable.

Peat is a protected carbon store

Raised bog is an Annex I habitat and a nationally recognised climate asset. The EPA’s National Inventory Report assigns high emission factors to drained or excavated peat. Even small areas of disturbance generate long-term, irreversible emissions.

The EIAR contradicts the applicant’s claims

The EIAR acknowledges:

- extensive peat excavation,
- floating roads across deep peat,
- drainage works altering hydrology,
- spoil deposition areas.

These activities increase CO₂ and N₂O emissions for decades, yet the applicant provides no quantified carbon loss.

No mitigation is possible

Once peat is drained or excavated, carbon loss is permanent. There is no scientific basis for the applicant’s claim that peat emissions can be “offset” by turbine operation.

This is a material omission under Article 3 of the EIA Directive.

2.10.3 Construction Emissions Are Not “Minor”

The applicant asserts construction emissions are “temporary and minor”. This is factually incorrect.

Wind farm construction involves:

- thousands of tonnes of concrete,
- heavy machinery,
- road widening,
- grid trenching,
- transport of abnormal loads,
- steel tower fabrication emissions (embodied carbon).

The applicant provides no lifecycle carbon analysis, despite this being standard practice under EU climate reporting frameworks. A claim of “minor emissions” without quantified data is not compliant with the EIA Directive.

2.10.4 No Assessment of Cumulative Climate Effects

The applicant’s response ignores cumulative climate impacts from:

- the Proposed Grid Connection (which they intend to apply for separately),
- the BESS,
- the 110 kV substation,
- the six other wind farms already in planning within the same region.

EU case law (C-50/09, C-24/19) requires cumulative assessment of all components of a single project. The applicant’s approach is therefore non-compliant.

2.10.5 Unsupported Claims About National Climate Policy

The applicant repeatedly states the project is “consistent with national climate policy”. This is misleading.

N-REAP and NECP were adopted without SEA

As established in C-24/19 (A & Others), plans or programmes adopted without SEA cannot lawfully form the basis for project consent. The applicant relies heavily on these documents.

The Galway County Development Plan is binding

The CDP treats peatlands as climate assets and zones three turbine locations as Generally to be Discouraged. The applicant's climate argument cannot override statutory zoning.

No demonstration of contribution to carbon budgets

The applicant provides no evidence that the project:

- reduces emissions within the relevant budget period,
- avoids carbon lock-in,
- is compatible with Ireland's electricity sector ceiling.

Assertions are not evidence.

2.10.6 Absence of Any Climate Risk Assessment

The applicant provides no analysis of:

- climate resilience,
- extreme weather impacts on turbines,
- increased storm frequency,
- flood risk from altered peat hydrology,
- climate-related fire risk at the BESS.

Under the EIA Directive, climate change impacts must be assessed in both directions: effects of the project on climate and effects of climate on the project.

The applicant addresses neither.

2.10.7 The Applicant's Climate Section Is Not an Assessment

The applicant's entire climate response consists of:

- generic statements,
- policy slogans,
- unquantified claims,
- omissions of statutory obligations,
- no modelling,
- no carbon accounting,
- no peatland emissions analysis,
- no cumulative assessment.

This does not meet the standard of “complete, precise and definitive findings” required under EU law (Sweetman, C-404/09).

2.10.8 Conclusion

The applicant’s Climate response (Section 2.10) is legally insufficient, scientifically unsupported, and methodologically incomplete. It fails to quantify emissions, ignores peatland carbon loss, omits cumulative impacts, misrepresents national policy, and does not address Ireland’s binding carbon budgets.

The Board cannot lawfully conclude — as required under the Climate Act, the EIA Directive, and EU case law — that the proposed development:

- will not undermine Ireland’s carbon budgets,
- is compatible with statutory climate obligations,
- avoids significant adverse climate effects,
- or contributes meaningfully to climate mitigation.

On this basis, the Collective respectfully submits that the application must be refused.

2.11 – Landscape and Visual Impact

Introduction

The Applicant contends that the landscape and visual effects arising from the proposed development are acceptable and appropriately assessed within the Environmental Impact Assessment Report (EIAR). It is respectfully submitted that this conclusion is not supported by the evidence presented. The assessment substantially underestimates the sensitivity of the receiving landscape, the magnitude of the visual effects, and the cumulative impacts arising from existing, permitted and proposed wind energy developments within the wider area.

The Board is required to have regard to the proper planning and sustainable development of the area, including the protection of landscape character, visual amenity and the environmental quality of rural areas. It is submitted that the proposed development would result in significant adverse landscape and visual impacts that have not been adequately assessed or mitigated.

2.11.1 Landscape Character and Sensitivity

The applicant's assessment places considerable emphasis on the capacity of the receiving landscape to accommodate large-scale wind energy infrastructure. However, insufficient weight is afforded to the intrinsic sensitivity of the landscape and the contribution it makes to local character, sense of place and rural amenity. The introduction of turbines of substantial height, associated infrastructure, access roads, substations and ancillary development would materially alter the character of this landscape.

While landscape change is an inevitable consequence of wind energy development, planning policy does not require acceptance of all such change irrespective of scale or context. The key consideration is whether the resulting impacts are proportionate and compatible with the capacity of the landscape to absorb them without unacceptable harm. The evidence presented does not demonstrate that this threshold has been met.

2.11.2 Underestimation of Visual Effects

The applicant concludes that many visual effects are acceptable despite acknowledging significant changes to existing views. This approach appears to conflate the existence of mitigation measures with the actual level of visual impact experienced by receptors.

The proposed turbines would become dominant features across extensive areas and would fundamentally alter the visual composition of numerous views. Particular concern arises regarding:

- Residential receptors experiencing prolonged and repeated exposure.
- Users of local and regional roads.
- Recreational users of walking routes, trails and viewpoints.
- Communities whose visual relationship with the surrounding landscape would be materially altered.

The assessment does not adequately address the cumulative effect of repeated visual exposure experienced throughout daily activities. The significance of visual effects cannot be determined solely by reference to isolated viewpoints.

2.11.3 Viewpoint Selection and Assessment Methodology

The reliability of a visual impact assessment depends heavily on the selection of representative viewpoints. It is submitted that the viewpoints chosen do not fully capture the extent of the visual effects likely to be experienced by residents and visitors.

Questions arise as to whether sufficient emphasis has been placed on:

- Recreational routes and amenities.
- Heritage locations where setting contributes significantly to value.
- Sequential views experienced along transport corridors.

There is a risk that the viewpoint based assessment presents a fragmented picture of visual effects rather than the cumulative reality experienced by receptors. The cumulative effects are also relevant when considering the volume of turbines currently in planning for the surrounding areas.

2.11.4 Cumulative Landscape and Visual Effects

The assessment of cumulative effects is a particularly important consideration. National planning policy and the Wind Energy Development Guidelines require consideration not only of the proposed development in isolation but also of its interaction with existing, permitted and reasonably foreseeable developments.

The cumulative assessment presented by the applicant does not adequately address the increasing concentration of wind energy infrastructure within the wider area. The incremental addition of further turbines may result in a landscape reaching or exceeding its capacity to absorb such development without significant adverse effects.

The Board should be satisfied that cumulative impacts have been assessed in a comprehensive manner that reflects:

- Existing operational wind farms.
- Permitted but not yet constructed developments.
- Other developments currently progressing through the planning process.
- Associated transmission and infrastructure projects.

Without a robust cumulative assessment, there is a risk that the true scale of landscape transformation is understated.

2.11.5 Residential Visual Amenity

The protection of residential amenity remains a fundamental planning consideration. While visual impacts alone may not always justify refusal, the planning system recognises that residents are entitled to reasonable protection from overbearing and dominant development.

The applicant's assessment focuses heavily on technical compliance yet gives insufficient consideration to the lived experience of residents. The issue is not merely whether turbines are visible but whether their scale, proximity and visual dominance would result in a material deterioration in residential amenity.

It is submitted that the assessment fails to adequately address circumstances where turbines may become defining and dominant features within the outlook of residential properties.

2.11.6 Policy Considerations

The proposed development must be assessed against relevant national, regional and local policy objectives relating to landscape protection and visual amenity.

Particular regard should be had to:

- The Wind Energy Development Guidelines for Planning Authorities (2006).
- The National Landscape Strategy for Ireland.
- The relevant County Development Plan landscape objectives.
- Any applicable Landscape Character Assessment.
- The principles of proper planning and sustainable development contained within the Planning and Development Act.

These policy documents do not simply facilitate renewable energy development; they require such development to be appropriately located and designed so as to avoid unacceptable impacts on landscape character and visual amenity.

The applicant has not demonstrated that these requirements have been fully satisfied.

2.11.7 Conclusion on Landscape and Visual Impact

For the reasons outlined above, it is submitted that the applicant's conclusions regarding landscape and visual effects are not adequately supported by the evidence presented. Significant concerns remain regarding landscape capacity, visual dominance, cumulative impacts, residential amenity and the adequacy of the assessment methodology.

The Board should therefore attach carefully consider whether the proposal would result in an unacceptable level of landscape and visual harm.

2.12 – Cultural Heritage

Introduction

The applicant concludes that impacts on cultural heritage are acceptable and can be appropriately mitigated. It is our belief that this conclusion is not adequately substantiated and that the assessment fails to fully consider the significance of heritage assets, particularly in relation to setting, landscape context and cumulative effects.

The protection of archaeological, architectural and cultural heritage forms an important component of sustainable development and is supported by national legislation and planning policy.

2.12.1 Archaeological Heritage

The assessment appears to focus primarily on the avoidance of direct physical impacts upon recorded monuments and archaeological features. While physical preservation is important, it represents only one aspect of heritage protection.

Modern heritage assessment recognises that the significance of archaeological sites frequently extends beyond their physical boundaries. Their setting, visibility, interrelationship with the surrounding landscape and ability to convey historical meaning are all relevant considerations.

The introduction of large-scale wind turbines has the potential to alter the context within which archaeological monuments are experienced and understood. Such impacts may occur even where no direct ground disturbance affects the monument itself.

2.12.2 Architectural Heritage

Protected structures and other historic buildings derive significance not only from their fabric but also from their setting and surroundings.

The proposed development has the potential to alter the setting of heritage assets across a broad area. In assessing these impacts, it is necessary to consider:

- Visual prominence.
- Landscape context.

- Historical associations.
- Cumulative change over time.

The assessment does not demonstrate that these matters have been comprehensively evaluated.

2.12.3 Historic Landscapes

The applicant's analysis gives insufficient attention to the concept of historic landscape character. Heritage significance is often expressed through the relationship between archaeological features, historic settlements, field patterns, routeways and topography.

The introduction of major energy infrastructure can fundamentally alter the character of such landscapes even where individual monuments remain physically unaffected. The Board should therefore be satisfied that the assessment extends beyond individual sites and considers the wider historic landscape as a cultural resource in its own right.

2.12.4 Cumulative Heritage Effects

The cumulative assessment of cultural heritage impacts is particularly important where multiple developments are proposed within a region over time.

The gradual introduction of large-scale infrastructure may result in:

- Progressive erosion of historic landscape character.
- Diminished appreciation of heritage assets.
- Increased visual intrusion within heritage settings.
- Loss of cultural distinctiveness.

The applicant's cumulative assessment does not sufficiently address the broader effects of multiple wind farms in the area. .

2.12.5 Conclusion on Cultural Heritage

For the reasons outlined above, it is submitted that the applicant has not adequately demonstrated that impacts on archaeological heritage, architectural heritage, historic landscapes and heritage settings will be acceptable.

Significant concerns remain regarding assessment methodology, cumulative effects, the treatment of setting and the potential for adverse impacts on cultural heritage resources.

In circumstances where material uncertainty persists and where potentially significant adverse effects have not been adequately assessed or mitigated, the precautionary principle should apply.

2.13 – Traffic and Road Safety

The developer's response does not adequately address the serious traffic and road safety concerns raised by the local community.

Throughout their reply, the developer repeatedly refers readers back to various sections of the Environmental Impact Assessment Report (EIAR) rather than providing clear and direct answers. This makes it extremely difficult for members of the public to assess the actual data, figures, and impacts without having to navigate a lengthy and highly technical document.

Many older residents in the Barnaderg and Cooloo areas do not have internet access or the digital skills required to locate and interpret the relevant EIAR sections. As a result, the information provided offers little reassurance to those most affected by the proposed development. Our community collectively believes that many of the concerns raised have not been properly answered but have instead been deferred by directing residents back to the EIAR.

This approach fails to provide the transparency expected for a project of this scale. Fundamental information that directly affects residents' daily lives should be clearly set out in the developer's response rather than hidden within multiple technical reports.

In particular, the response fails to provide clear information on:

2.13.1 Traffic Numbers, Timing and Routing

The developer in this reply does not provide a single, clear breakdown of the total number of abnormal load deliveries, the exact delivery schedule, or the anticipated peak construction traffic periods. Instead, these matters are referred back to various sections of the EIAR. There are also no guaranteed limits on the number of abnormal load deliveries that may occur on any given day or week, leaving residents with considerable uncertainty regarding the extent of disruption.

2.13.2 Off-Peak and School-Time Protections

The response contains no binding commitment to preventing heavy goods vehicles from travelling during school drop-off or collection times. There are no defined "no-delivery" periods and no enforceable protections for school transport or other peak local traffic periods, despite the obvious road safety implications.

2.13.3 Road Closures

The developer in their reply does not directly address concerns regarding the cumulative impact of road closures throughout the project. While individual works and diversion routes are discussed, there is no clear explanation of the total number of closure days expected across the entire construction period or the overall duration of repeated disruption to local communities.

2.13.4 Road Damage

No commitment has been made to strengthen local roads before construction traffic begins. The proposed approach is limited to carrying out condition surveys before construction and repairing damage afterwards. This effectively accepts that damage will occur rather than taking preventative measures to avoid it.

1.13.5 Safety of Abnormal Loads

The response relies heavily on swept path computer modelling but does not adequately address how abnormal loads will safely interact with real-world rural traffic, including tractors, farm machinery, livestock movements, school buses, or other large vehicles using narrow local roads.

Nor does it explain how breakdowns, blocked roads, or emergency situations will be managed during deliveries.

2.13.6 Emergency Access

One of the most significant concerns is access to emergency services. The developer has not clearly explained how ambulances, fire services, or Gardaí will reach residents if a medical emergency or other incident occurs during extended road closures or while abnormal loads are occupying the roads. Likewise, there is no detailed emergency response plan outlining how residents would receive urgent medical assistance if normal access routes are restricted.

2.13.7 Farming and Rural Access

The response contains no detailed plan guaranteeing uninterrupted access for farming operations, livestock movements, agricultural contractors, or other essential rural traffic. Given the dependence of the local economy on agriculture, stronger commitments should be provided.

2.13.8 School and Community Impacts

Concerns regarding school traffic are largely dismissed on the basis that such issues are considered less significant in rural areas. However, no local traffic study has been produced to support this conclusion especially at Horseleap cross and no protective scheduling measures have been proposed for school transport routes or special needs buses. This is particularly concerning for vulnerable residents who rely on consistent transport services for education and day-care.

2.13.9 Diversions

Although diversion routes of up to 13.7 kilometers are acknowledged, the developer provides no assessment of the additional journey times or the cumulative daily burden these diversions will place on residents, businesses, school transport, healthcare access, or emergency response times. The response focuses only on distance rather than the real-life consequences of repeated diversions.

2.13.10 Traffic Management Plan

Many of the most important traffic management measures remain undecided. Critical matters, including delivery schedules, traffic controls, and operational arrangements, are deferred to future agreement with the Council and An Garda Síochána. Residents are therefore being asked to accept the proposal without knowing the final traffic management arrangements that will directly affect their communities.

2.13.11 Conclusion on Traffic and Road Safety

Overall, the developer's response relies heavily on statements that the project will comply with existing guidelines, that impacts will be temporary, or that important details will be agreed at a later stage. It does not provide the level of certainty or transparency that local residents require now at this stage before this windfarm gets planning.

The response fails to provide:

- A complete and easily understood delivery schedule.
- Clear limits on abnormal load movements.
- Enforceable restrictions during school and peak traffic periods.
- Full modelling of the worst-case cumulative disruption.
- Comprehensive emergency access and response procedures.
- Robust protections for farming activities and rural transport.
- Clear assurances regarding cumulative road closures and daily disruption.

These are fundamental public safety issues that should not require residents to search through multiple technical documents to find answers. The developer should provide this information in a clear, accessible format, including the exact duration of road closures, delivery schedules, traffic management arrangements, emergency access procedures, and specific commitments to protect local residents. This information should also be made available in paper format and distributed directly to affected households so that all members of the community, regardless of age or access to technology, can fully understand how their safety, livelihoods, and daily lives will be protected. We, the people of Barnaderg and Cooloo, are not asking for vague assurances, references to technical reports, or promises that important details will be decided at a later date. We are asking for clear, transparent, and accountable answers now.

Residents deserve to know exactly how this development will affect their daily lives, their road safety, their farms, their children, and their access to essential services before any decision is made. Matters such as emergency access, road closures, abnormal load movements, school transport, farming operations, and traffic management are not minor details—they are fundamental public safety issues.

At present, too many of these questions remain unanswered or have been deferred to future plans and agreements. That is simply not acceptable for a project of this scale on our doorstep.

We therefore call on Neon to provide clear, comprehensive, and publicly accessible responses to every outstanding concern before this planning application progresses any further. The community should not be expected to accept uncertainty or rely on hundreds of pages of technical documents to understand how their lives will be affected.

Our community deserves facts, not assumptions; commitments, not intentions; and certainly, not promises of future consultation.

We need clear answers now—not after permission has been granted.

2.14 – Telecommunications

Applicant's Response Does Not Resolve the Identified Deficiencies

I respectfully submit that the Applicant's response does not adequately address the telecommunications concerns previously raised. Rather than demonstrating that impacts on existing telecommunications infrastructure have been resolved, the Applicant confirms that essential mitigation measures remain dependent on future consultation, engineering design, and agreement with third-party operators.

Accordingly, the Applicant has not demonstrated that the Proposed Development can proceed without unacceptable impacts on licensed telecommunications infrastructure.

2.14.1 Absence of Agreement with Three Ireland

The Applicant states:

"Prior to construction, the Applicant will seek an agreement with Three Ireland to ensure the Proposed Wind Farm will not interfere with the existing Three Ireland radio link."

This confirms that no agreement currently exists. Despite acknowledging potential impacts on an operational link, the Applicant has provided no written confirmation from Three Ireland that the proposed mitigation is acceptable, technically viable, or sufficient to maintain network performance. Instead, the Board is asked to assume that agreement will be reached post-consent, without supporting evidence.

2.14.2 Unproven Mitigation Measures

The Applicant proposes rerouting the telecommunications link via the Creevagh mast, but this remains an undeveloped proposal. There is no evidence that the solution has been designed, validated, approved by the operator, or independently verified. The mere possibility of a solution does not demonstrate that impacts have been mitigated. Planning permission should not rely on mitigation that may be developed in the future.

2.14.3 Deferral of Critical Matters

Key elements of mitigation—including consultation, agreement with Three Ireland, and implementation—are deferred until after consent. This approach seeks approval without demonstrating that impacts can be effectively addressed. The Applicant has not met the burden of proving the development is acceptable at the time of determination.

2.14.4 Reliance on Uncertain Future Agreements

The Applicant has not secured cooperation or approval from affected operators. Whether such agreements will be reached is uncertain. The application must be assessed on current evidence, not on expectations of future resolution.

2.14.5 Lack of Independent Confirmation

The Applicant relies solely on its consultant's conclusions. No correspondence from Three Ireland or other operators confirms acceptance of the mitigation or that network performance will be maintained. Given that mitigation depends on third-party cooperation, this absence of independent confirmation is significant.

2.14.6 Inadequacy of the 2RN Protocol

Reference to a Protocol Agreement with 2RN does not address the core issue. The Board must be satisfied, prior to granting permission, that the development will not cause unacceptable impacts. A protocol triggered after interference occurs cannot substitute for demonstrating acceptability in advance.

2.14.7 Unresolved Mitigation Precludes Approval

The response confirms that key mitigation elements remain unresolved, including lack of agreement with operators and absence of verification. These issues are fundamental to whether the development can proceed without unacceptable impacts. Permission should not be granted based on uncertain, future-dependent mitigation.

2.14.8 Conclusion on Telecommunications

The Applicant has not demonstrated that telecommunications impacts have been satisfactorily resolved. Mitigation remains contingent on unconfirmed agreements and lacks independent verification, leaving significant uncertainty.

Accordingly, I respectfully request that An Coimisiún Pleanála refuse planning permission for the Proposed Development. Alternatively, if permission is granted, no development should commence until the Applicant has provided:

1. Written agreements from all affected telecommunications operators confirming acceptance of the mitigation.
2. Independent verification that the mitigation has been implemented.

3. Certification that telecommunications infrastructure will operate without degradation following construction and operation.

Until these matters are resolved, the telecommunications impacts remain uncertain and inadequately assessed.

2.15 – Major Accidents and Natural Disasters

The Applicant's response does not satisfactorily address the concerns raised regarding peat instability, fire risk, flooding, severe weather events and emergency response. Instead of demonstrating that these risks have been fully assessed before the grant of planning permission, the Applicant repeatedly relies upon future investigations, future design work, future contractor inspections and future management plans.

This approach is inconsistent with the objectives of the Environmental Impact Assessment process, which requires the competent authority to assess the likely significant environmental effects before development consent is granted.

2.15.1 Peat Stability

The Applicant concludes that peat stability risk is “negligible”. However, this conclusion is contradicted by several significant admissions contained within its own response.

The Applicant acknowledges that:

- raised bog environments may be susceptible to bog-burst failures;
- bog-burst failures may not be fully quantified by conventional Factor of Safety (FoS) calculations because they are driven by hydrological processes rather than slope alone;
- the absence of historical bog bursts does not exclude future failures;
- further inspection will be required during detailed design;
- the contractor will develop additional inspection and testing criteria;
- increased monitoring will be required following prolonged or heavy rainfall.

These statements demonstrate that significant uncertainty remains regarding peat stability.

The Applicant's reliance upon deterministic Factor of Safety modelling alone is insufficient where the Applicant accepts that the principal failure mechanism may not be fully represented by the model itself.

Scientific evidence demonstrates that peat failures are not confined to steep slopes. Irish research has shown that bogflows commonly occur on low-gradient peatlands and are strongly influenced by peat depth, drainage and groundwater conditions rather than slope angle alone. Bog bursts have been documented on slopes of only a few degrees. ([Irish River Data](#))

This is directly relevant to the Proposed Development because substantial infrastructure is proposed on extensive peat deposits.

The history of wind farm development in Ireland further demonstrates that peat instability cannot be dismissed as merely theoretical.

The Derrybrien wind farm experienced one of Europe's largest construction-related peat failures, releasing approximately 450,000 cubic metres of peat over almost 2.5 kilometres, causing extensive ecological damage and pollution of downstream waters. The failure occurred during construction and ultimately resulted in proceedings against Ireland before the Court of Justice of the European Union concerning failures in environmental assessment and regulatory oversight. ([Irish River Data](#))

More recently, the Meenbog Wind Farm construction site in County Donegal experienced another significant peat landslide affecting protected salmon rivers and drinking water supplies. ([Wikipedia](#))

These examples demonstrate that peat failures remain a genuine construction risk for wind farms developed on peatland.

2.15.2 Fire Risk

The Applicant's fire risk assessment is generic and lacks any meaningful site-specific analysis.

The response merely states that fire risk is considered low and that a Fire Safety Risk Assessment will be undertaken following consent.

This is not an assessment. It is a commitment to undertake an assessment after planning permission has already been granted.

No evidence has been presented regarding:

- turbine nacelle fires;
- transformer fires;
- Battery Energy Storage System (BESS) fires;
- lightning strikes;
- peat fires;
- wildfire propagation;
- emergency water supplies;
- emergency access;
- emergency response times; or
- contingency arrangements during severe weather.

Wind turbine fires are well documented internationally. Although relatively infrequent, they can result from lightning strikes, electrical faults, gearbox failures, braking systems, hydraulic equipment and lubricating oils. Because modern turbines exceed 180 metres in height, fire services are generally unable to extinguish nacelle fires directly and the accepted response is frequently to establish exclusion zones while allowing the turbine to burn itself out, creating a risk of burning debris igniting surrounding vegetation or peat. ([Research Briefings](#))

These risks become significantly greater where turbines are located within peatland landscapes that may become increasingly susceptible to drought and wildfire under projected climate change.

2.15.3 Emergency Access

The Applicant has failed entirely to assess emergency access.

The Proposed Development is served by narrow rural roads with constrained widths, limited passing opportunities and limited turning areas.

The EIAR contains no detailed assessment demonstrating that Galway Fire and Rescue Service can safely access every turbine, the substation, BESS compound and remote construction areas during:

- turbine fires;
- transformer failures;
- peat fires;
- flooding;
- severe storms;
- fallen trees;
- road blockages; or
- simultaneous emergency incidents.

Emergency response cannot simply be assumed. Without evidence demonstrating that emergency services can safely reach all critical infrastructure under adverse conditions, the Board cannot conclude that major accident risks have been adequately assessed.

2.15.4 Flooding and Climate Change

The Applicant accepts that County Galway faces increasing risks from:

- severe windstorms;
- extreme precipitation;
- pluvial flooding;
- river flooding;
- drought; and
- increasing temperatures.

These conclusions are consistent with the Galway Local Area Climate Action Plan. However, having acknowledged increasing climate risks, the Applicant simply concludes that future management plans will address them.

This is inadequate.

Extreme rainfall is directly relevant to:

- peat stability;
- drainage systems;
- watercourse crossings;
- sediment mobilisation;
- access road stability;
- emergency vehicle access;
- pollution pathways.

Indeed, the Applicant recommends additional monitoring following heavy rainfall events. This itself acknowledges that heavy rainfall is recognised as a trigger for peat instability.

2.15.5 Unlawful Deferral of Environmental Assessment

The most significant deficiency within the Applicant's response is the repeated deferral of critical environmental assessment until after planning permission has been granted.

Examples include:

- future peat inspections;
- future contractor testing;
- future Fire Safety Risk Assessment;
- future Risk Management Plan;
- future revisions to the Construction Environmental Management Plan;
- future construction methodologies.

The purpose of the Environmental Impact Assessment process is to enable the competent authority to determine whether the development is environmentally acceptable before development consent is granted. The EIA process is intended to identify, describe and assess likely significant environmental effects before permission is issued, not afterwards.

Where significant uncertainty remains regarding environmental effects, those matters cannot simply be deferred to future contractors or post-consent management plans. The Applicant's own evidence demonstrates that substantial uncertainty remains regarding peat stability, fire safety and emergency response.

2.15.6 Precautionary Principle

The precautionary principle is particularly relevant.

The Applicant accepts that:

- bog-burst failures cannot always be predicted by Factor of Safety calculations;
- historical absence does not exclude future failures;
- additional investigation is required during construction.

Accordingly, scientific uncertainty remains.

Where uncertainty exists regarding potentially serious environmental consequences affecting peatlands, watercourses, protected habitats and public safety, planning authorities should adopt a precautionary approach rather than relying upon assumptions that future mitigation will resolve outstanding concerns.

2.15.7 Conclusion on Major Accidents and Natural Disasters

Rather than addressing the concerns raised by third-party observers, the Applicant's response reinforces them.

The Applicant repeatedly relies upon future investigations, future inspections, future contractor decisions and future management plans to justify its conclusion that risks are acceptable.

That is not sufficient.

The Environmental Impact Assessment should demonstrate, before development consent is granted, that the risks associated with peat instability, fire, flooding, climate resilience and emergency response have been comprehensively assessed and are capable of effective mitigation. The Applicant has failed to do so.

In light of the acknowledged uncertainty regarding bog-burst mechanisms, documented peat failures at Irish wind farm construction sites, increasing climate-related rainfall and wildfire risks, the absence of a site-specific emergency response strategy, and the unlawful deferral of essential

environmental assessment until after consent, the Board cannot be satisfied that the Proposed Development will avoid significant adverse effects on the environment or public safety.

For these reasons, An Coimisiún Pleanála should refuse planning permission. In the alternative, the Board should require a revised Environmental Impact Assessment addressing peat stability, fire safety, emergency response, climate resilience and major accident risk before any development consent is considered.

2.16 – Decommissioning

The applicant's response in Section 2.16 does not address the substantive concerns raised in our original submission. The treatment of decommissioning is minimal, generic, and relies heavily on deferral to post-consent processes. This approach is inconsistent with the requirements of the EIA Directive, EPA guidance, and established practice in Strategic Infrastructure Development cases. Our concerns fall under two headings: **Financial Security** and **In-situ Infrastructure**. The applicant's responses to both are inadequate and fail to provide the complete, enforceable information required at application stage.

2.16.1 Financial Security

Our submission highlighted the following deficiencies:

- No estimated cost for decommissioning
- No financial bond or security mechanism
- No timeline for review or update
- No contingency plan for insolvency
- No clarity on responsibility in the event of ownership transfer

The applicant responds only by stating: "Financial security regarding the decommissioning of the Proposed Project is typically addressed via a condition should the Commission decide to grant permission, which the Applicant accepts." This is not a meaningful response.

Deferral to post-consent is not permitted

The EIA Directive requires that all significant effects and mitigation measures be assessed **at application stage**. Financial security is not a minor administrative detail; it is a core environmental safeguard. Deferring it to a future condition is contrary to:

- the EIA Directive,
- EPA guidance on wind farm decommissioning, and
- ACP's own practice in recent SID cases.

No mechanism for insolvency or corporate restructuring

Our submission raised the risk of:

- developer insolvency,
- sale of the asset,
- transfer of ownership to a shell company.

The applicant does not address these risks. This omission is significant given the 30-year operational period and the prevalence of asset transfers in the wind energy sector.

No costed plan

The applicant provides no:

- cost estimate,
- methodology,
- financial instrument,
- bond structure,
- review mechanism.

This falls far short of what is required for a project of this scale.

2.16.2 In-situ Infrastructure

The applicant confirms that:

- all turbine foundations will remain in situ,
- all access roads and hardstandings will remain,
- grid infrastructure will remain,

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- foundations will simply be covered with soil,
- the Decommissioning Plan will be updated “prior to the end of the operational period”.

This raises several concerns.

Permanent landscape alteration

Leaving nine large reinforced concrete foundations in the ground constitutes:

- permanent landscape alteration,
- long-term hydrological disruption,
- irreversible soil and habitat loss.

The applicant provides no assessment of these long-term effects.

No assessment of waste volumes or disposal routes

The applicant does not provide:

- waste volume estimates,
- waste classification,
- recycling feasibility,
- transport impacts,
- disposal locations.

This is contrary to EPA guidance and standard EIA practice.

No restoration plan

The applicant states that temporary works will “naturally revegetate”, but provides:

- no restoration plan,
- no soil reinstatement plan,
- no habitat reinstatement plan,
- no monitoring or verification measures.

Deferral of the Decommissioning Plan

The applicant states that the Decommissioning Plan will be updated at end-of-life. This is a clear deferral of essential information. A decommissioning plan must be:

- complete,
- costed,
- enforceable,
- assessed as part of the EIAR.

Appendix 4-6 does not meet these requirements.

2.16.3 Conclusion on Decommissioning

The applicant's Section 2.16 response is inadequate and fails to address the concerns raised by Barnaderg Cooloo Windfarm Action Collective CLG. It relies on deferral, lacks costings, lacks financial security, and confirms that major permanent infrastructure will remain in situ without assessment of long-term impacts.

We respectfully request that An Coimisiún Pleanála:

- give limited weight to the applicant's response,
- require a complete, costed, enforceable decommissioning plan,
- require a financial bond or equivalent security,
- require assessment of long-term environmental impacts of in-situ infrastructure,
- recognise that the applicant has not complied with the EIA Directive's requirement for complete information at application stage.

3 – Prescribed Bodies

The Applicant's responses to the observations of the prescribed bodies seek to present the outstanding issues as matters that can be satisfactorily addressed through design refinements, mitigation measures, planning conditions and post-consent monitoring. However, when considered collectively, the statutory observations indicate that a number of important environmental, heritage, infrastructure and operational matters remain subject to ongoing assessment, additional investigation or future mitigation.

Rather than providing unequivocal support for the proposed development, several prescribed bodies identify matters requiring further surveys, technical assessment, protective measures and compliance with detailed conditions before development could proceed. This demonstrates that aspects of the proposed development continue to rely on assumptions regarding the future effectiveness of mitigation rather than on established evidence that significant impacts have been avoided.

The repeated reliance on pre-construction investigations, ecological monitoring, archaeological testing, construction management plans and operational controls also highlights that key elements of the environmental assessment remain dependent on measures to be implemented after consent. While planning conditions have an important role in regulating development, they should not be used to remedy deficiencies in the Environmental Impact Assessment or to defer the assessment of significant environmental effects that should properly inform the Board's decision.

It is also noteworthy that many of the prescribed bodies' observations are precautionary in nature, recognising the need for additional safeguards to protect environmental receptors, cultural heritage, water resources, transport infrastructure and public safety. These observations reinforce, rather than diminish, the concerns raised by members of the public regarding the scale and complexity of the proposed development.

The collective also wish to draw significant attention to the fact that having contacted all of the prescribed bodies it was found that not all of the bodies had been notified of this development. This in turn means that adequate consultation and communication has not taken place.

Taken as a whole, the prescribed bodies' submissions demonstrate that the proposed development gives rise to a range of significant environmental and technical considerations requiring careful scrutiny by the Board. They do not support the conclusion that all material planning and environmental issues have been conclusively resolved. Instead, they reinforce the need for a cautious approach and further support the conclusion that the applicant has not demonstrated, to

the requisite standard, that the proposed development would constitute proper planning and sustainable development.

4 – Overall Conclusion

The Applicant has failed to address the fundamental concerns raised by the community. Rather than providing new evidence, the response largely repeats previous conclusions while relying on future investigations, monitoring and mitigation measures that should have been completed before a planning decision is made.

The proposed turbine layout has not been adequately justified. No turbine-by-turbine spacing assessment, wake analysis or turbulence assessment has been provided to demonstrate that the layout is appropriate or complies with recognised design principles for modern wind energy developments.

Significant uncertainty also remains regarding peat stability and the underlying karst geology. The Applicant acknowledges that further investigations and confirmatory testing will be required during construction, demonstrating that critical environmental risks remain unresolved. This is inconsistent with the Precautionary Principle and with the requirement that the Commission must be satisfied, before granting permission, that the likely significant effects of the proposed development have been fully identified, assessed and, where necessary, avoided.

The proposed development will result in irreversible impacts upon peatland habitats, mature hedgerows, biodiversity, landscape character and residential amenity. While the Applicant repeatedly refers to mitigation, habitat enhancement and future management plans, these measures cannot replace existing environmental resources nor compensate for permanent ecological loss. Avoidance of impacts should remain the primary objective of the Environmental Impact Assessment process.

The Applicant has also failed to satisfactorily demonstrate that groundwater resources, public and group water supplies, surface waters and groundwater-dependent ecosystems can be protected

throughout construction, operation and decommissioning. The reliance on conceptual models, limited site investigation and post-consent monitoring leaves significant uncertainty regarding the hydrogeological behaviour of this sensitive peatland and karst environment.

Equally concerning is the continued reliance on deferred information. Across numerous chapters of the Applicant's response, important matters are left to detailed design, contractor methodology, construction management plans, ecological monitoring, operational controls and future agreements. This approach undermines the purpose of the Environmental Impact Assessment and Appropriate Assessment processes, which require that the competent authority be provided with sufficient information to assess the likely significant effects of the development before any decision is made.

The Applicant has not adequately addressed concerns regarding noise, shadow flicker, residential amenity, human health, traffic safety, telecommunications, decommissioning, project splitting or the cumulative environmental effects of the overall project, including the associated grid connection, substation and Battery Energy Storage System. In many instances the responses amount to little more than references back to the original EIAR, without providing new evidence or addressing the substantive issues raised by local residents, prescribed bodies and Galway County Council.

It is also significant that many of the observations made by prescribed bodies identify the need for additional surveys, monitoring, mitigation and technical clarification before environmental acceptability can be established. Rather than supporting the Applicant's position, these submissions reinforce the conclusion that important uncertainties remain and that the available information is not yet sufficient to permit a lawful and robust assessment of the project.

Taken cumulatively, the deficiencies identified throughout this submission demonstrate that the Applicant has not discharged the burden of proof required under Irish and European planning and environmental law. The Commission cannot simply rely upon assurances that impacts will be managed after consent has been granted. It must be satisfied, on the basis of objective scientific

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evidence, that the proposed development will not result in unacceptable environmental effects and that it represents proper planning and sustainable development.

The Barnaderg Cooloo Windfarm Action Collective CLG respectfully submits that this standard has not been met. The proposal remains characterised by significant scientific uncertainty, reliance on post-consent mitigation, incomplete environmental assessment and unresolved legal and planning issues. These deficiencies are particularly important given the scale of the proposed development, its location within a sensitive rural landscape, its interaction with peatland and karst geology, its proximity to homes and water supplies, and the irreversible nature of many of the proposed works.

Accordingly, we respectfully request that An Coimisiún Pleanála:

- Give limited weight to the Applicant's February 2026 responses where they merely repeat previous assertions rather than providing new evidence.
- Conclude that the information before the Commission is insufficient to remove reasonable scientific doubt regarding the likely significant environmental effects of the proposed development.
- Apply the Precautionary Principle in accordance with Irish and European environmental law.
- Recognise that the Applicant has not demonstrated that the proposed development would constitute proper planning and sustainable development.
- Refuse permission for the proposed Cooloo Wind Farm.

The Collective wishes to acknowledge the considerable work undertaken by local residents, community organisations and prescribed bodies throughout this planning process. The volume, quality and consistency of the observations submitted demonstrate the depth of concern within the the community. Those concerns have not been adequately answered by the Applicant.

For all of the reasons set out in this submission, and having regard to the Planning and Development Act 2000 (as amended), the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, the Water Framework Directive, the Galway County

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Development Plan and the principles of proper planning and sustainable development, the **Barnaderg Cooloo Windfarm Action Collective CLG** respectfully requests that An Coimisiún Pleanála refuse permission for the proposed development.