

**Objection to Case Reference: PAX07.323761 located within
Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter,
Lissavally and Slievegorm, Co.Galway (www.cooloowfplanning.com)**

My name is Anita Nolan, and I live with my husband Michael Mitchell and our two young sons at Cloondahamper, Lavally, Co. Galway, H54 N625, approximately one kilometer from elements of the proposed Cooloo Wind Farm. As permanent residents whose family life, wellbeing, and home environment would be directly and significantly affected by this development, we are submitting this objection to An Coimisiún Pleanála in respect of Case Reference: PAX07.323761. Having reviewed the planning application documentation, the EIAR, and the associated technical assessments, I have serious concerns regarding the impacts on our home, health, environment, safety, property rights, and community. The grounds outlined in this submission demonstrate that the proposal is fundamentally incompatible with proper planning and sustainable development and that permission should therefore be refused.

Contents

Chapter 1: Shadow Flicker	5
Defective Shadow Flicker Assessment – Cooloo Wind Farm.....	5
1.1. Over-reliance on a purely numerical threshold (30 minutes / 30 hours)	5
1.2. Failure to assess shadow flicker impacts on vulnerable groups, including children.....	5
1.3. False assumption that turbine shutdown fully eliminates shadow flicker.....	5
1.4. EIAR does not consider the character or pattern of flicker	5
1.5. Failure to integrate shadow flicker into Population & Human Health assessment	5
1.6. Relevance of Wexford nuisance case law	5
1.8. Overall conclusion	6
1.9. Relief sought	6
Chapter 2 Noise	6
2.1 Introduction.....	6
2.1.1 Noise Context and Site Relationship	6
2.1.2. The Wexford Legal Precedents	7
2.1.3. Application to Cooloo Wind Farm.....	7
2.1.4. Requested Outcome	7
2.1.5. Conclusion.....	8
2.2 Additional Independent Evidence – Project Ciúnas (CEPA)	8
2.3 Defective Assessment of Noise and Human Health in Cooloo Wind Farm EIAR.....	10
2.3.1. Blatant omission of school noise assessment	10
2.3.2. Failure to apply WHO 2018 Environmental Noise Guidelines.....	10
2.3.3. Ignoring children as a vulnerable group	11
2.3.4. Failure to engage with Wexford High Court nuisance cases.....	11
2.3.5. Overall consequences.....	11
Chapter 3 Project Splitting.....	12
3.1. Introduction.....	12
3.2. Fragmentation of the Project – Breach of EIA Law.....	12
3.3. EU Law Confirmation	12
3.4. Consequences of Non-Compliance	12
3.5. Request for Action.....	13

3.6. Conclusion	13
Chapter 4 Peatlands.....	13
4.1. National Experience: Derrybrien and Meenbog	13
4.1.1 Similar Risk Profile at Cooloo	15
4.1.2. Legal Basis – EIA Directive & CJEU Case Law	15
4.1.3. Precautionary Principle & Proper Planning	16
4.1.4. Conclusion – Planning Recommendation	16
4.2. Floating roads on peat are recognised internationally as high-risk and failure-prone	16
4.2.1 Floating roads tend to subside and become drains, damaging bog hydrology	16
4.2.2 Intact raised bog is a highly sensitive, irreplaceable receptor	17
4.2.3. Design and risk assessment lack sufficient detail	17
4.2.4. Alternatives have not been adequately considered.....	17
4.2.5. Conclusion and requested outcome	18
4.2.6 References.....	18
4.2.7. Relevant EU Case Law: Derrybrien Wind Farm (C-215/06 and C-261/18).....	18
Chapter 5 Right To Property.....	19
5.1. Constitutional Property Rights – Articles 40.3 and 43	19
5.1.1 Article 40.3.....	19
5.1.2 Article 43	20
5.1.3 Application to this Development.....	20
5.2. Article 40.5 – Inviolability of the Dwelling	20
5.2.1 Constitutional Protection	20
5.2.2 Relevance to the Cooloo Wind Farm.....	20
5.3 Proportionality and Constitutional Balance.....	20
5.4 Conclusion	21
Chapter 6 Biodiversity.....	21
6.1. Introduction.....	21
6.2. Presence of Annex I Habitat and Sensitive Flora.....	21
6.3. Permanent Habitat Loss	22
6.4. Hydrological Disturbance to Peatland Flora	22
6.5. Fragmentation of Ecological Networks.....	22
6.6. Non-Compliance With the Habitats Directive	23

6.7. Conclusion – Permission Must Be Refused	23
Chapter 7 Water	23
7.1. Risk to Lough Corrib SAC and failure to meet the Habitats Directive test.....	24
7.2. Non-compliance with the Water Framework Directive (WFD)	24
7.3. Risk to drinking-water sources – Corrib DWPA and Mid-Galway PWS.....	24
7.4. Over-reliance on generic mitigation	24
7.5. Conclusion and request.....	24
Chapter 8 - Contradiction of Galway County Development Plan 2022-2028	24
8.1. Conflict with Natural Heritage & Biodiversity Objectives (NHB).....	25
8.2. Zoning of Turbines in Areas 'Generally to be Discouraged'	25
8.3. Conflict with Water Resource & Wetland Protection (WR Objectives)	26
8.4. Peatlands / Bogs as Key Heritage & Climate Assets.....	26
8.5. Conclusion	26
Chapter 9 Telecommunications.....	27
9.1. Key quoted evidence from Appendix 15-4.....	27
9.2. Objection: Technical deficiencies & risk of harm	28
9.3. Relief and conditions requested.....	28
9.4. Conclusion	28
9.5 Technical Annex – Telecommunications Impact Summary	29
10 Risk of maladaptation.....	29
10.1. Lack of adequate alignment with adaptation policy — risk of maladaptation	29
10.2. Insufficient integration of mitigation and adaptation, and just transition	30
10.3. Conflict with sequential approach for flood-risk planning.....	30
10.4. Inadequate demonstration of long-term consequences.....	30
10.5. Maladaptation risk due to hydrological disturbance	30
10.6. Floating roads: instability, peat failure and increased vulnerability.....	30
10.7. Habitat and ecosystem risks.....	30
10.8. Cumulative hydrological risks	30
10.9. Sequential approach not satisfied.....	31
10. Summary of Objection Points	31
Chapter 11 Birds	31
11.1 Requested Outcome:.....	32
11.2 Conclusion.....	32

Chapter 12 Bats	32
FINAL CONCLUSION	33
Objection to Case Reference: PAX07.323761 located within Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter, Lissavally and Slievegorm, Co.Galway (www.cooloowfplanning.com)	35

Chapter 1: Shadow Flicker

Defective Shadow Flicker Assessment – Cooloo Wind Farm

I object to the proposed Cooloo Wind Farm on the grounds that the Environmental Impact Assessment Report (EIAR), specifically Chapter 5 – Population & Human Health and Chapter 13 – Shadow Flicker, contains serious and material deficiencies. These deficiencies mean the competent authority cannot reach a lawful, reasoned conclusion under the EIA Directive, the Planning and Development Regulations, and the EPA EIAR Guidelines (2022).

1.1. Over-reliance on a purely numerical threshold (30 minutes / 30 hours)

The EIAR shadow flicker assessment relies entirely on the outdated “30 minutes per day / 30 hours per year” threshold. This approach is no longer defensible in Irish planning practice. The EPA EIAR Guidelines (2022) require assessment of health pathways, including stress, annoyance, sleep disruption, and daily living impacts—none of which are evaluated in the EIAR.

1.2. Failure to assess shadow flicker impacts on vulnerable groups, including children

The EIAR does not assess the two nearby schools—Brierfield National School and Scoil Bríde—for shadow flicker, despite their proximity. No assessment is made of impacts on classrooms, outdoor play, or children’s concentration. This violates EPA requirements to assess vulnerable receptors.

1.3. False assumption that turbine shutdown fully eliminates shadow flicker

The EIAR assumes perfect performance of turbine shadow flicker control systems. It does not examine the likelihood of system failure, malfunctions, override errors, or enforcement. This assumption is not evidence-based.

1.4. EIAR does not consider the character or pattern of flicker

The EIAR fails to assess flicker intensity, frequency, repetitive sequences, winter clustering, or early morning impacts. These are critical factors with known health and amenity implications, ignored in the EIAR.

1.5. Failure to integrate shadow flicker into Population & Human Health assessment

Chapter 5 does not provide a health-based analysis of shadow flicker. It relies solely on the 30-minute rule and does not consider stress, annoyance, sleep, or disproportionate burdens on certain households.

1.6. Relevance of Wexford nuisance case law

Recent High Court cases in Wexford (Webster & Rollo; Byrne & Moorhead) demonstrate that planning compliance does not prevent nuisance findings. Courts now focus on real impacts on amenity and wellbeing. These principles apply equally to shadow flicker, yet the EIAR does not address them.

1.8. Overall conclusion

Given the shortcomings—omission of schools, failure to assess vulnerable groups, outdated thresholds, lack of health pathway analysis, absence of system reliability review, inadequate cumulative assessment, and ignorance of modern case law—the EIAR fails to meet EPA EIAR Guidelines (2022) or EIA Directive standards.

1.9. Relief sought

I request that the competent authority:

1. Deem the EIAR inadequate regarding shadow flicker.
2. Require Further Information, including:
 - Full modelling at all receptors including both schools,
 - Assessment of intensity, character, and health pathways,
 - System reliability and enforcement analysis,
 - Cumulative modelling,
 - Revised PHH chapter using EPA 2022 criteria.
3. Refuse permission if significant adverse effects cannot be ruled out.

Chapter 2 Noise

2.1 Introduction

My home is located approximately 1.06 kilometres from the proposed Turbine 7 (T7) of the Cooloo Wind Farm. My home is therefore a noise-sensitive receptor within the meaning of the Wind Energy Development Guidelines 2006 (WEDG 2006).

This objection is made on the grounds of operational noise, low-frequency noise, amplitude modulation, and the cumulative noise effects of the turbines and associated substation/BESS infrastructure. In light of recent High Court decisions concerning wind-farm noise nuisance in County Wexford, this proposal presents a real and substantial risk of legal nuisance to residents in the Cooloo area, even if nominally compliant with WEDG 2006 limits.

2.1.1 Noise Context and Site Relationship

According to the applicant's EIAR, Cooloo Wind Farm will comprise of nine turbines with tip heights up to 180 m. The site lies in a rural area of low background sound and scattered housing. My home is situated 1.06 km north-northeast of turbine T7, based on Irish Transverse Mercator (ITM) coordinates:

- T7: ITM X = 555568, Y = 750508
- Dwelling: ITM X = 555163, Y = 751490

Even at over 1 km, recent Wexford High Court rulings have found serious and unlawful nuisance from wind-farm noise at comparable or greater distances, notably in the *Byrne & Anor v ABO Energy Ireland Ltd* [2025] IEHC 330 and *Webster & Anor v Meenacloghspar (Wind) Ltd* [2024] IEHC 136 judgments.

2.1.2. The Wexford Legal Precedents

1. *Webster & Anor v Meenacloghspar (Wind) Ltd* [2024] IEHC 136 (Ballyduff Wind Farm, Co. Wexford):

- Dwellings 359–655 m from turbines experienced intrusive 'whooshing' and 'thumping' noise.
- The Court held this constituted a private nuisance, even though the turbines complied with planning conditions.
- The judge confirmed that planning compliance is not a defence to nuisance.

2. *Byrne & Anor v ABO Energy Ireland Ltd* [2025] IEHC 330 (Gibbet Hill Wind Farm, Co. Wexford):

- Residents ~1 km away suffered long-term nuisance from turbine noise and shadow flicker.
- The High Court ordered a permanent shutdown of three turbines and awarded ~€360,000 damages.
- The judgment emphasised that the public interest in renewable energy cannot override residents' right to peaceful enjoyment of their homes.

These cases establish that distances between 350 m and 1 km cannot guarantee freedom from nuisance. A dwelling 1.06 km from T7 therefore lies within the range where Irish courts have found noise to be unreasonable and unlawful.

2.1.3. Application to Cooloo Wind Farm

The Cooloo EIAR relies on averaged ETSU-R-97 metrics, which under-represent intermittent or amplitude-modulated noise. It does not meaningfully evaluate Lden values against the WHO 2018 Environmental Noise Guideline of ≤ 45 dB Lden for wind-turbine noise. Without a detailed amplitude-modulation and tonality analysis, the Board cannot safely conclude there will be no significant noise impact. Given the Wexford precedents, there is a foreseeable risk of private-law nuisance to residents at and beyond this distance, which would expose both the developer and planning authority to ongoing litigation and enforcement difficulties.

2.1.4. Requested Outcome

(a) Primary request – Refusal on noise and human-health grounds

Because the proposed turbines are of unprecedented height (180 m) and located only 1.06 km from occupied dwellings, and given that comparable separations have produced unlawful nuisance elsewhere, permission should be refused.

(b) Fallback – Stricter enforceable conditions

If permission is nonetheless considered:

1. Absolute noise limits: ≤ 40 dB LA90 (day) and ≤ 43 dB LA90 (night), ensuring < 45 dB Lden.
2. Amplitude-modulation (AM) control condition with operational curtailment.

3. Independent post-construction monitoring for at least two years.
4. Transparent complaint and curtailment procedures, with authority to impose further restrictions if nuisance arises.

2.1.5. Conclusion

At a measured 1.06 km from turbine T7, nearby dwellings are within the range where Irish courts have found significant and actionable turbine-noise nuisance. The Cooloo Wind Farm proposal fails to demonstrate that such impacts will not occur and therefore does not meet the standard of proper planning or sustainable development. Accordingly, permission should be refused on noise and nuisance grounds.

2.2 Additional Independent Evidence – Project Ciúnas (CEPA)

In addition to the recent High Court decisions, attention is drawn to Project Ciúnas, a nationwide independent noise-monitoring initiative commissioned by the Communities & Environmental Protection Alliance (CEPA) at a range of operating wind farms in Ireland. CEPA report that this monitoring has identified exceedances of permitted noise limits at occupied dwellings and highlights serious weaknesses in current Irish practice, particularly the reliance on the LA90 metric, which tends to under-represent the intrusive, modulating character of wind-turbine noise experienced by residents, especially at night. In at least one documented case (Cloghan Wind Farm, Co. Offaly), an independent acoustician engaged through CEPA found the wind farm not compliant with its planning noise conditions at a nearby house and concluded that current assessment methods fail to capture the real-world impact of turbine noise. Project Ciúnas therefore reinforces the point that self-reported developer compliance with legacy guidance cannot be treated as a reliable safeguard against significant noise impact or legal nuisance at homes within the influence zone of proposed turbines.

Recent noise monitoring carried out by Les Huson, L Huson & Associates Pty Ltd at a property 750m from Cloghan Wind Farm confirms the planning condition – noise limit of 43 dB LA90, could not be met.

- **Cloghan Wind Farm: 9 turbines, 169m high, rotor diameter of 136m.**

NOTE: These turbines are smaller than those proposed for Cooloo Windfarm.

The Cloghan Wind Farm noise report² confirms: 43 LA90 – the faint line, is too high a noise threshold when compared to the LAeq (actual noise levels), both are averaged over 10mins, and our ears don't hear or experience noise in averages.

2018 WHO guidance; any noise above 37.3 dB LA90 is associated with adverse health effects including sleep disturbance, annoyance, and cardiovascular effects. The **red line** (37.3 dB) was added to the chart for your review.

LA90 noise levels do not capture characteristics of WT noise, such as; amplitude modulation, low frequency noise, **tonal** and **impulsive noise**. All of which draws additional attention to the noise and exacerbates annoyance.

Noise levels were above the WHO guidance limit on a regular basis and for sustained periods for the duration of the noise monitoring assessment.

With this evidence in hand the Bord cannot be satisfied that the proposed Cooloo Wind farm will not have significant health impacts, this project must be refused in full.

2.3 Defective Assessment of Noise and Human Health in Cooloo Wind Farm EIAR

The Environmental Impact Assessment Report (EIAR), specifically Chapter 5 – Population & Human Health and Chapter 12 – Noise & Vibration, is materially deficient and fails to comply with the requirements of the EIA Directive, the EPA “Guidelines on the Information to be Contained in Environmental Impact Assessment Reports” (May 2022), and recent High Court case law from Co. Wexford concerning wind farm noise nuisance.

These defects are particularly stark in relation to noise impacts, the omission of nearby schools as noise receptors, and the failure to engage with the legal reality that ETSU-style compliance does not guarantee protection from nuisance.

2.3.1. Blatant omission of school noise assessment

Chapter 5 identifies Brierfield National School (c. 1.35 km from T1) and Scoil Bríde (c. 1.59 km from T8) under “Education” as community facilities. However, Chapter 12 defines Noise Sensitive Receptors (NSRs) solely as residential properties and omits both schools entirely. No construction or operational noise predictions are provided for either school, and no assessment considers impacts on concentration, learning environment, outdoor play, or exam conditions.

The EPA EIAR Guidelines (2022) require consideration of vulnerable groups, including children, and health-based interpretation of exposure. By identifying the schools but omitting them from noise assessment, the EIAR fails to provide the necessary information to reach a reasonable conclusion on effects on population and human health.

2.3.2. Failure to apply WHO 2018 Environmental Noise Guidelines

Chapter 5 acknowledges the WHO 2018 Guidelines and the conditional recommendation to limit wind turbine noise to below 45 dB Lden due to associated adverse health effects. However, neither Chapter 5 nor Chapter 12 provide Lden or Lnight predictions at any receptor, including dwellings and schools.

Chapter 12 relies entirely on ETSU-R-97 and 2006 Wind Energy Development Guidelines (LA90 limits). WHO 2018 is referenced but never applied. This failure to integrate WHO health-based

thresholds does not meet EPA 2022 requirements for use of current, internationally recognised health standards.

2.3.3. Ignoring children as a vulnerable group

The EIAR fails to treat schoolchildren as vulnerable receptors. No noise predictions are made for classrooms (including open windows scenarios) or playgrounds, nor is there consideration of daytime exposure patterns or learning impacts. This conflicts directly with EPA guidance requiring analysis of impacts on vulnerable populations.

2.3.4. Failure to engage with Wexford High Court nuisance cases

Recent High Court cases—Webster & Rollo (Ballyduff Wind Farm) and Byrne & Moorhead (Gibbet Hill Wind Farm)—establish that:

- Compliance with planning limits does not prevent a finding of nuisance.
- Noise character, intermittency, amplitude modulation, and sleep impacts are critical factors.
- Courts now rely on real-world impact rather than LA90 compliance alone.

The EPA EIAR Guidelines (2022) require developers to have up-to-date knowledge of case law, yet neither Chapter 5 nor Chapter 12 references these decisions or assesses nuisance risk accordingly. This is a major omission.

2.3.5. Overall consequences

The EIAR is inadequate and cannot be relied on to assess significant effects on population and human health due to:

- Omission of school noise assessment,
- Failure to apply WHO 2018 guidelines,
- Failure to treat children as vulnerable receptors,
- Failure to consider Wexford nuisance case law,

I request that the competent authority:

1. Deem the EIAR inadequate in its treatment of noise and human health.
2. Require Further Information including:
 - Full Lden and Lnight predictions at all dwellings and both schools (indoor/outdoor).
 - Revised Population & Human Health assessment treating children as vulnerable receptors.
 - Analysis of noise character, night-time disturbance, and nuisance risk with reference to Wexford judgments.
3. Refuse permission if the applicant cannot demonstrate that significant adverse effects on population and human health are unlikely.

Chapter 3 Project Splitting

3.1. Introduction

The Cooloo Wind Farm application is legally deficient and non-compliant with the Environmental Impact Assessment (EIA) Directive and established Irish and EU case law.

The application, as presented, unlawfully separates the wind farm from its associated grid connection and ancillary infrastructure. This approach has been unequivocally rejected by the Irish High Court and the Court of Justice of the European Union (CJEU).

3.2. Fragmentation of the Project – Breach of EIA Law

The Cooloo Wind Farm proposal fails to present the full scope of the development as a single, integrated project. The separation of the main wind farm site from its grid connection, cabling, substations, and access infrastructure is contrary to established legal precedent.

In *O’Grianna & Others v An Bord Pleanála* [2014] IEHC 632, the High Court held that: “The wind farm and its grid connection constitute one single project for the purposes of the EIA Directive and must be assessed together.”

This decision established that developers cannot split interdependent components of a wind energy project into separate applications to avoid or minimize environmental scrutiny.

The principle was reaffirmed in *Kilvinane Wind Farm Ltd v An Bord Pleanála* [2017] IEHC 308, where the Court reiterated that:

“Interconnected elements such as access roads, substations, and cabling form part of one overall project.”

Therefore, the Cooloo Wind Farm application’s failure to include the full extent of its associated works renders the EIA incomplete, misleading, and unlawful.

3.3. EU Law Confirmation

The CJEU in *Sweetman v An Bord Pleanála* (2017) made clear that the EIA process cannot be circumvented by dividing a project into parts, while *People Over Wind v Coillte* [2018] C-323/17 reinforced that projects must be considered as a whole when assessing potential environmental effects, including at screening stage.

This body of case law collectively mandates that the entirety of a project’s environmental footprint — including the grid connection and any ancillary works — must be assessed in a single EIA.

3.4. Consequences of Non-Compliance

By presenting only part of the development for assessment, the Cooloo Wind Farm application:

- Fails to comply with Article 3 of the EIA Directive (2011/92/EU, as amended by 2014/52/EU);

- Deprives the public and decision-makers of a complete understanding of the project's environmental impact;
- Invalidates any screening or assessment conclusions reached on the basis of incomplete information;
- Renders the application legally unsound and incapable of lawful approval.

3.5. Request for Action

Given the above, I respectfully request that the Planning Authority or An Bord Pleanála:

1. Reject the Cooloo Wind Farm application in its current form as it constitutes an impermissible project-splitting exercise;
2. Require the developer to submit a full and integrated Environmental Impact Assessment covering all related elements — including grid connection, access roads, substations, and cabling — before any lawful decision can be made;
3. Ensure compliance with the established case law under O’Grianna, Kilvinane, Sweetman, and People Over Wind, to protect the integrity of the EIA process and uphold EU environmental law obligations.

3.6. Conclusion

The Cooloo Wind Farm application, as currently constituted, is fatally flawed in law. The deliberate or negligent omission of its grid connection and ancillary components constitutes project splitting in direct violation of binding Irish and EU jurisprudence.

Accordingly, the application must be refused pending submission of a complete, single EIA that addresses the full environmental impacts of the entire development.

Chapter 4 Peatlands

4.1. National Experience: Derrybrien and Meenbog

Below is a comparison between the proposed Cooloo Wind Farm and two Irish wind farm peat failures—Derrybrien and Meenbog with reference to the EIA Directive (2014/52/EU),

Ireland has experienced two major wind farm–related peat failures: Derrybrien (2003) and Meenbog (2020). Both resulted in catastrophic peat movement, extensive water pollution, ecological damage, and significant legal consequences. These events demonstrate that wind farm construction on peatland carries inherent and substantial risk.

Table 1 – Expanded Comparative Risk Profile

Category	Derrybrien Wind Farm	Meenbog Wind Farm	Cooloo Wind Farm (Proposed)
----------	----------------------	-------------------	-----------------------------

County / Location	Co. Galway – Slieve Aughty Mountains	Co. Donegal – Mourne Beg / River Derg	Co. Galway – Cooloo and surrounds
Status	Constructed; major peat slide (2003)	Construction phase; peat slide (2020)	Application stage (9 turbines)
Turbines	71	~19	9 (180m)
Terrain Type	Steep upland slopes	Upland slopes, forestry + bog	Lowland; raised & cutover bog
Peat Type	Deep blanket peat	Blanket bog (afforested in parts)	Raised bog & cutover bog
Peat Depths	1–4m+	1–3m+	Variable; multiple peat zones 3M+
Peat Stability Issues	Yes – mass instability	Yes – slope instability	Risk present; under-addressed in EIAR
Volume of Peat Movement	~450,000 m ³	Thousands of tonnes/m ³	N/A (but large excavation planned)
Trigger of Failure	Roadwork + drainage	Construction + hydrological disruption	Risk factors present
Hydrological Sensitivity	High – Lough Cutra catchment	High – River Derg SAC	High – high-status streams
Downstream Impact	20 km pollution; fish kill (~50k)	Pollution of protected salmon river	Potential deterioration from high baseline
Affected Designations	Lough Cutra SAC	River Derg SAC	Lough Corrib SAC, Peatland habitat + sensitive waters
Legal Consequences	CJEU rulings; state fines	Cross-border investigations	High future legal exposure
EIA Quality	Inadequate	Inadequate	EIAR underplays peat-slide risk

Construction Risk Factors	Peat excavation, haul roads	Roadworks, drainage	Roads, turbine bases, peat compounds
Precautionary Principle	No	No	Weak / insufficient
Similarity to Cooloo	Shares peat + construction risk	Shares peat + slide event	Matches both risk profiles
Likelihood of Repeat Event	Proven	Proven	High

4.1.1 Similar Risk Profile at Cooloo

The Cooloo Wind Farm site contains raised bog, cutover bog, and peatland habitats similar to those present at Derrybrien and Meenbog. The proposed works—turbine foundations, access roads, peat excavation, spoil placement, and drainage modification—mirror activities that triggered peat failures in the past. Downstream watercourses are high-status and highly vulnerable to peat siltation events.

Table 2 – Compliance Check Summary

Compliance Area	Derrybrien	Meenbog	Cooloo
EIA Directive – Major Accidents	✗	✗	⚠ / ✗
Precautionary Principle	✗	✗	⚠
Peatland Best Practice	✗	✗	⚠
Water Framework Directive	✗	✗	⚠
Habitats/Biodiversity	✗	✗	⚠
CJEU Case Law Compliance	✗	✗	⚠ / ✗

4.1.2. Legal Basis – EIA Directive & CJEU Case Law

Under Article 3(2)(d) of Directive 2014/52/EU, EIAs must assess a project's vulnerability to major accidents and natural disasters. Annex IV 8(a) requires explicit identification of such risks. Following the Derrybrien rulings (Cases C-215/06 and C-261/18), Ireland has a heightened

obligation to ensure peat stability is fully evaluated. The omission of peat-slide as a principal hazard in the Cooloo EIAR contradicts these legal requirements.

4.1.3. Precautionary Principle & Proper Planning

The precautionary principle requires refusal where scientific doubt exists regarding the risk of catastrophic environmental harm. Given prior failures, peat depth, hydrological complexity, and downstream sensitivity, authorising the Cooloo Wind Farm without rigorous peat-stability modelling would contradict this principle.

4.1.4. Conclusion – Planning Recommendation

Given the expanded evidence, compliance concerns, and similarities to prior disaster sites, the proposed Cooloo Wind Farm presents an unacceptably high environmental and legal risk. On these grounds, permission should be refused.

4.2. Floating roads on peat are recognised internationally as high-risk and failure-prone

The proposed construction of a c. 0.6 km floating access road over intact raised bog to turbine T7 in the Cooloo Wind Farm application is recognized as high risk.

Independent guidance prepared for Scottish Natural Heritage and the wind energy industry (“Floating Roads on Peat – A Report into Good Practice in Design, Construction and Use of Floating Roads on Peat with particular reference to Wind Farm Developments”, Forestry Civil Engineering, 2010) was commissioned specifically to review “successes and failures” of floating roads on peat. Its very existence acknowledges that such roads have a record of instability and failure, not just success.

Similarly, the “Guidelines for the Risk Management of Peat Slips” (MacCulloch, 2006) make clear that:

- The characteristics of peat vary enormously at short distances.
- A risk-free, low-cost road over peat is unrealistic.
- All parties constructing roads over peat should expect failure and plan to manage it.

International guidance therefore does not support the idea that floating roads on peat are a low-risk mitigation measure; they are inherently high-risk engineering interventions in sensitive environments.

4.2.1 Floating roads tend to subside and become drains, damaging bog hydrology

The IUCN UK Peatland Programme briefing on tracks across peatlands notes that, over time,

“floating roads” frequently settle into the peat mass, becoming “sunken roads.” These then act as linear drains across the bog and form distinct shear planes, even if they later overgrow. This threatens the hydrological integrity of intact raised bogs that depend on diffuse surface flows, not on linear drainage channels.

The Cooloo EIA itself admits that the proposed floating road to T7 crosses approx. 0.6 km of intact raised bog, and will cause significant alteration of surface water flowpaths and long-term hydrological effects within 50–100 m of the road alignment.

Yet elsewhere (Chapter 18), the same EIA presents the floating road as a “mitigation by design” measure that “minimises impact on the peat, particularly peat hydrology.” These positions are inconsistent and contradict both independent guidance and the EIA’s own analysis.

4.2.2 Intact raised bog is a highly sensitive, irreplaceable receptor

The EIA describes the road crossing an area of intact raised bog, with semi-intact bog habitats adjacent. Intact or near-intact raised bogs are:

- Priority habitats under EU legislation.
- Long-term carbon stores and active carbon sinks.
- Increasingly rare and under restoration across Ireland and the EU.

Guidance emphasises that even bogs without formal designation remain highly sensitive to track construction. The proposed floating road will directly and permanently damage an irreplaceable bog system.

4.2.3. Design and risk assessment lack sufficient detail

The EIA and Schedule of Mitigation defer detailed drainage and road design until post-consent. Experience from Ireland and the UK shows floating roads are often empirically designed and still experience localised peat movement and instability, which climate change will likely worsen. This approach lacks the transparency and assurance required for such high-risk development.

4.2.4. Alternatives have not been adequately considered

Given the acknowledged significant and long-term impacts on intact raised bog and the wealth of guidance cautioning against roads in peatlands, alternatives should be fully explored. The application does not demonstrate that alternative routes or turbine positions were considered to avoid the intact bog entirely.

4.2.5. Conclusion and requested outcome

The proposed floating access road presents an unacceptable risk of peat instability, long-term hydrological damage, and loss of carbon and biodiversity. The EIAR's reliance on "floating road design" as mitigation is inconsistent with independent research and best practice, which consider such roads inherently unstable and damaging over time.

I therefore request that the planning authority refuse permission for any floating road or permanent access track across intact raised bog in this location, or require a fundamental redesign of the project layout to avoid this area entirely.

4.2.6 References

1. Forestry Civil Engineering (2010). "Floating Roads on Peat – A Report into Good Practice in Design, Construction and Use of Floating Roads on Peat." Scottish Natural Heritage. Available at: <https://www.roadex.org/wp-content/uploads/2014/01/FCE-SNH-Floating-Roads-on-Peat-report.pdf>
2. MacCulloch, F. (2006). "Guidelines for the Risk Management of Peat Slips." Scottish Executive.
3. IUCN UK Peatland Programme (2014). "Tracks across Peatlands – Key Findings." Available at: <https://www.iucn-uk-peatlandprogramme.org>
4. Roadex Network (2012). "Roads on Peat: Engineering Insights." Available at: <https://www.roadex.org/wp-content/uploads/2014/01/3.-Roads-on-Peat-R-Munro.pdf>
5. Forest Research (2013). "Overlay roads... unstable and may settle or subside." Forestry Commission Technical Note 20.

4.2.7. Relevant EU Case Law: Derrybrien Wind Farm (C-215/06 and C-261/18)

The risks associated with constructing major wind farm infrastructure – including floating roads – on peatlands are well-documented in EU case law.

In Case C-215/06, *Commission v Ireland (Derrybrien Wind Farm)*, the Court of Justice of the European Union (CJEU) held that Ireland breached the Environmental Impact Assessment (EIA) Directive (85/337/EEC) by allowing a large wind farm on peat-covered slopes at Derrybrien, Co. Galway to proceed without an adequate EIA. A catastrophic peat slide occurred in October 2003 during road construction, mobilising approximately 450,000 cubic metres of peat and killing an estimated 50,000 fish. The European Commission described this event as "environmentally devastating."

In Case C-261/18, *Commission v Ireland (Derrybrien Wind Farm)*, the CJEU again found Ireland in breach for failing to comply with the 2008 ruling and imposed a €5 million lump-sum fine and a

daily penalty of €15,000 until compliance was achieved.

Subsequent geotechnical documentation for the Derrybrien project (in the revised EIAR for substitute consent) explicitly acknowledges that “failures of floating road resulting in peat slides have occurred on the project.” Independent analysis (Lindsay, 2004) also highlights that floating “undrained” roads and associated drainage were contributing factors in destabilising the peat mass that led to the slide.

These judgments illustrate the significant environmental and legal consequences of inadequate assessment and risk management when constructing floating roads on peat. Ireland has already been sanctioned twice by the CJEU for such failures. Approving a similar floating road across intact raised bog at Cooloo would be inconsistent with the precautionary principle and contrary to the objectives of the EIA and Habitats Directives.

****References (EU Case Law):****

1. Court of Justice of the European Union, Case C-215/06, Commission v Ireland (Derrybrien Wind Farm), Judgment of 3 July 2008. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62006CJ0215>
2. Court of Justice of the European Union, Case C-261/18, Commission v Ireland (Derrybrien Wind Farm), Judgment of 12 November 2019. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62018CJ0261>
3. Lindsay, R. (2004). “Wind farms and blanket peat – The Derrybrien Bog Slide.” Report to Friends of the Irish Environment.
4. Revised EIAR for Substitute Consent, Derrybrien Wind Farm (2018), Chapter 7: Geology, Soils and Land – noting “failures of floating road resulting in peat slides.”

Chapter 5 Right To Property

The Cooloo Wind Farm, as proposed, would constitute a disproportionate and unjustified interference with my constitutional rights, specifically:

- My property rights protected by Articles 40.3.2° and 43 of Bunreacht na hÉireann; and
- The inviolability of my dwelling protected by Article 40.5.

The proposal would significantly and adversely affect the use, enjoyment, value, amenity, privacy and security of my home and surrounding lands.

5.1. Constitutional Property Rights – Articles 40.3 and 43

5.1.1 Article 40.3

Article 40.3.2° obliges the State to protect from unjust attack the property rights of every citizen. The Supreme Court has repeatedly held that:

- Property rights may be regulated, but
- Any restriction must be proportionate,
- Justified by social justice and the common good, and
- Must not impose an excessive burden on affected individuals.

5.1.2 Article 43

Article 43 explicitly recognises the natural right to private ownership, and prevents the State from abolishing or disproportionately restricting that right.

5.1.3 Application to this Development

The scale, height, proximity, noise emissions, shadow flicker, and visual intrusion of the proposed turbines would:

- Interfere substantially with the quiet enjoyment and amenity of my home,
- Undermine my ability to use and enjoy my land,
- Cause loss of value to the property, and
- Impose a disproportionate burden on a small number of nearby homeowners without fair balancing of interests.

5.2. Article 40.5 – Inviolability of the Dwelling

5.2.1 Constitutional Protection

Article 40.5 provides that: “The dwelling of every citizen is inviolable and shall not be forcibly entered save in accordance with law.”

5.2.2 Relevance to the Cooloo Wind Farm

While wind turbines do not involve physical entry into the dwelling, the spirit and purpose of Article 40.5 extends to preventing State-permitted interference that:

- Degrades the peaceful enjoyment of the home,
- Introduces intrusive noise, vibration, or strobing,
- Creates dominating structures overlooking or overshadowing family dwellings,
- Impairs the ability to live safely, privately and comfortably in one’s home.

5.3 Proportionality and Constitutional Balance

Any interference with constitutional rights must meet the proportionality test:

1. Be rationally connected to a legitimate objective;
2. Impair rights as little as possible;
3. Not impose an excessive individual burden.

The Cooloo proposal fails this test because:

- The impacts on nearby dwellings are severe and continuous,

- The proximity and scale of turbines are excessive relative to residential receptors,
- Less intrusive means were not pursued,
- The burden falls disproportionately on a small number of rural residents.

5.4 Conclusion

The proposed Cooloo Wind Farm would constitute:

- An unjust attack on my property rights (Arts. 40.3 & 43), and
- A serious interference with the inviolability and peaceful enjoyment of my home (Art. 40.5).

I therefore respectfully request that the Planning Authority REFUSE permission for the Cooloo Wind Farm in its current form.

Chapter 6 Biodiversity

6.1. Introduction

The proposed Cooloo Wind Farm development will cause irreversible loss and degradation of important flora and habitats, including habitat types corresponding to EU Annex I priority peatland, and will therefore breach Ireland's obligations under the EU Habitats Directive (92/43/EEC) and associated national legislation.

6.2. Presence of Annex I Habitat and Sensitive Flora

The EIAR confirms that the site contains:

- PB1 – Uncut Raised Bog (Annex I 7110)
- PB4 – Degraded/Cutover Bog (Annex I 7120 equivalent)
- Wet grassland (GS4) of local biodiversity importance
- Broad-leaved woodland (WD1) and scrub (WS1) patches
- Extensive hedgerows, treelines and stone walls functioning as ecological corridors

Appendix 6-1 documents key peat-forming and bog-specialist flora, including:

- *Sphagnum capillifolium*
- *Sphagnum palustre*
- *Sphagnum papillosum*
- *Eriophorum angustifolium*
- *Erica tetralix*
- *Trichophorum germanicum*
- *Succisa pratensis* (host plant for Annex II Marsh Fritillary)

These species indicate active and recovering peatland processes that are especially vulnerable to disturbance.

6.3. Permanent Habitat Loss

The EIAR (Table 6.14) identifies permanent losses including:

- 0.18 ha of uncut raised bog (PB1)
- 2.12 ha of degraded/cutover bog (PB4)
- 0.17 ha of broad-leaved woodland
- 3.74 km of hedgerow/treeline/stone walls

These habitats—particularly peatland—cannot be recreated or “offset” through mitigation planting. Even small losses of Annex I bog are legally significant (CJEU Sweetman, C-258/11).

6.4. Hydrological Disturbance to Peatland Flora

EIAR Section 6.5 acknowledges that turbine works and access tracks (including floating roads between T7–T9) will alter local hydrology.

Such disturbance threatens:

- Sphagnum peat-forming communities
- Bog water table stability
- The viability of wet heath and bog-mosaic flora

Hydrological change is the principal driver of peatland decline, and any deterioration breaches Article 6(2) of the Habitats Directive.

Residual hydrological impacts remain even after mitigation (EIAR Table 6.18).

6.5. Fragmentation of Ecological Networks

The loss of 3.74 km of hedgerows/treelines will fragment habitat connectivity essential for:

- dispersal of wetland and grassland flora
- invertebrate movement
- pollinator pathways
- overall ecological resilience

Replacement planting takes decades to reach ecological equivalence and does not replicate existing networks.

6.6. Non-Compliance With the Habitats Directive

The proposal fails several binding obligations under Directive 92/43/EEC:

Article 2(2)

Ireland must maintain or restore natural habitats to favourable conservation status.

Annex I bog habitats are already in poor national condition; further loss is unacceptable.

Article 6(2)

Member States must avoid deterioration of protected habitat.

The EIAR acknowledges residual deterioration.

Article 6(3)

A project may only proceed if no adverse effect on habitat integrity can be established beyond reasonable scientific doubt (Waddenzee C-127/02).

This threshold is not met.

Article 6(4)

Compensation for Annex I peatland loss is not feasible; therefore, the Board cannot rely on Article 6(4) to authorise the project.

6.7. Conclusion – Permission Must Be Refused

I respectfully request that the Board refuse permission for the Cooloo Wind Farm due to the following:

- confirmed presence of Annex I peatland and specialist flora
- permanent loss of peatland, woodland and linear habitats
- hydrological disturbance to sensitive plant communities
- fragmentation of ecological networks
- failure to comply with Articles 2, 6(2) and 6(3) of the Habitats Directive

The development would result in irreversible biodiversity harm and cannot lawfully be permitted.

Chapter 7 Water

The proposed Cooloo Wind Farm and associated grid connection poses an unacceptable risk to water quality, Lough Corrib Special Area of Conservation, and public drinking-water supplies. In my view, the project does not demonstrate compliance with the EU Water Framework Directive, the EU Habitats Directive, or the Drinking Water Directive.

7.1. Risk to Lough Corrib SAC and failure to meet the Habitats Directive test

The EIAR confirms that the site drains to the Grange and Abbert Rivers, which flow directly into Lough Corrib SAC, with the SAC lying only a few kilometres downstream. The grid connection also crosses the SAC at the Grange River.

Under Article 6(3) of the Habitats Directive, permission can only be granted where there is no reasonable scientific doubt that the development will not harm the integrity of the SAC.

However, the EIAR acknowledges negative effects before mitigation and relies heavily on mitigation measures without robust modelling.

7.2. Non-compliance with the Water Framework Directive (WFD)

Article 4 of the Water Framework Directive requires no deterioration of any water body. The EIAR improperly relies on dilution within the Corrib catchment, which is not compatible with EU law.

7.3. Risk to drinking-water sources – Corrib DWPA and Mid-Galway PWS

The site lies upstream of the Corrib Lower Drinking Water Protected Area and overlaps with the Mid-Galway Public Water Supply Source Protection Area. The vulnerable karst aquifer increases risk to drinking-water quality.

7.4. Over-reliance on generic mitigation

The EIAR assumes perfect performance of mitigation without assessing realistic failure scenarios or extreme weather events.

7.5. Conclusion and request

I respectfully request that An Coimisiun Pleanála refuse permission due to risks to water quality, Lough Corrib SAC, and public drinking-water supplies.

Chapter 8 - Contradiction of Galway County Development Plan 2022-2028

The proposed Cooloo Wind Farm in the townlands of Cooloo and adjacent townlands, Co. Galway, contravenes the Galway County Development Plan 2022-2028 (the “CDP”), in particular its objectives for the protection of bog/peatland habitats, biodiversity (flora and fauna), and water-dependent ecosystems.

The CDP is the statutory framework for proper planning and sustainable development in the county and has itself undergone the required Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) and flood-risk assessments. All development must comply with its natural heritage and biodiversity objectives.

8.1. Conflict with Natural Heritage & Biodiversity Objectives (NHB)

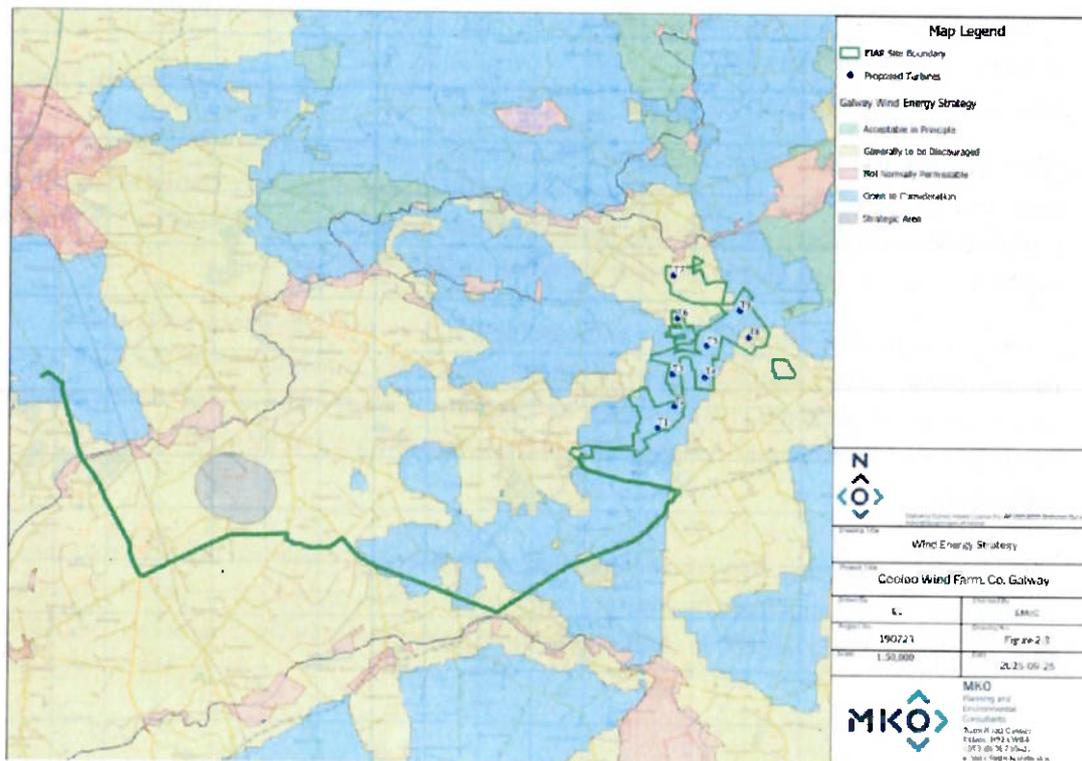
The CDP includes a suite of Natural Heritage and Biodiversity ("NHB") objectives which require:

- Protection and where possible enhancement of designated sites, habitats and protected species under the EU Habitats and Birds Directives and national legislation;
- Protection of biodiversity outside designated sites, including habitats and ecological networks such as hedgerows, wetlands and semi-natural habitats;
- Implementation of the National Peatlands Strategy and protection of rare and threatened habitats listed in Annex I of the Habitats Directive (including peatland / bog habitats).

Yet the application for Cooloo Wind Farm involves excavation of peat and spoil, extensive new tracks and access roads across peatland habitats, and removal of hedgerows and woodland, leading to permanent loss and fragmentation of biodiversity, contrary to the CDP's NHB objectives.

8.2. Zoning of Turbines in Areas 'Generally to be Discouraged'

The proposed development comprises nine turbines. According to the applicant's Planning Report, six turbines are located in areas zoned 'Open to Consideration' (OTC) under the County's Local Authority Renewable Energy Strategy (LARES), while three turbines (T6, T7, and one other) are located in areas zoned 'Generally to be Discouraged' (GTBD). This zoning is defined as areas where wind energy development is unlikely to be favourably considered due to potential adverse effects on protected landscape, water, ecological resources, and residential amenity. The siting of these turbines in the GTBD zone represents a clear conflict with the CDP and the LARES.



8.3. Conflict with Water Resource & Wetland Protection (WR Objectives)

The CDP's Water Resources (WR) objectives require the planning authority to protect wetlands, rivers, turloughs, lakes and groundwater, along with the habitats and species that depend on them. The proposed development involves extensive peat extraction and drainage works that would alter peat hydrology, dry out bog habitats, and increase runoff and sediment loads to adjacent watercourses. This is contrary to WR objectives which require the protection of wetlands and natural floodplains.

8.4. Peatlands / Bogs as Key Heritage & Climate Assets

The CDP and the Galway County Heritage & Biodiversity Plan identify peatlands as key climate and biodiversity assets. These areas are recognised Annex I habitats under the EU Habitats Directive and serve as vital carbon sinks. The Coolool Wind Farm's proposed works across peatland areas—including zones designated as 'Generally to be Discouraged'—run counter to the CDP's commitment to peatland conservation and climate resilience.

8.5. Conclusion

For the reasons outlined above:

1. The proposal contravenes NHB objectives of the CDP by causing permanent loss and fragmentation of peatland habitats and biodiversity.
2. Three turbines (T6, T7, and T8) are located in an area zoned 'Generally to be Discouraged', materially conflicting with the LARES zoning policy.

3. The development conflicts with the WR objectives of the CDP due to potential adverse effects on wetlands and peat hydrology.
4. It runs contrary to the CDP's strategic treatment of peatlands as heritage and climate assets.

Given that the Strategic Environmental Assessment (SEA) and the County Wind Energy Strategy have zoned this location as an area 'Generally to be Discouraged' due to its sensitive landscape, hydrological vulnerability, and potential impacts on water sources, how can the Board be satisfied that it can make an informed and impartial decision on this application?

Furthermore, in circumstances where the developer has a clear vested interest in the commercial outcome, what assurance can the Board provide that reliance on the applicant's own assessments does not compromise the objectivity, accuracy, and independence required for proper evaluation under the Planning and Development Act and EU environmental legislation?"

Accordingly, I respectfully request that planning permission be refused on the basis that the proposed development would be contrary to the proper planning and sustainable development of the area and would materially conflict with the Galway County Development Plan 2022-2028.

Chapter 9 Telecommunications

Observation on technical telecommunications grounds. In support, I refer to the applicant's Appendix 15-4 Telecommunications Impact Assessment (Ai Bridges Ltd., April 2024) and quote key passages. I request that the Board refuse permission or impose stringent conditions to safeguard existing critical radio links.

9.1. Key quoted evidence from Appendix 15-4

Below are relevant excerpts from Appendix 15-4, with page / section references (based on the PDF).

1.1 Three Ireland PTP concern, further consultations required:

Page 31: "The Three Ireland radio network has been modelled in 3D and the Clearance Distances between the Fresnel Zone(s) of the radio link(s) and the blade-tip of the nearest turbine(s) have been calculated. The results of this 3D network analysis are presented in Section 6.2.1."

Page 32: "Sections 7.1 and 7.2 ... describe the mitigation measures available to the wind farm developer to offset the potential impact of the proposed turbines on the ESB and Three Ireland Networks."

Page 8: "Consultations are commenced with telecom operators who are requested to raise any concerns they have regarding the impact of the proposed wind farm on their networks."

1.2 ESB antenna / link listings and concerns:

Page 9: "Table 3 lists the telecom operators who raised concerns during the consultation process. The responses received from each of the Telecom Operators (ESB and Three Ireland) are provided in Section 3.1 and Section 3.2."

Page 10: "02/11/21 – ESB Response 'I have carried out an initial impact analysis of proposed Windfarm development and can confirm we do have Point-to-Multipoint radio links crossing the outlined site boundary ...'"

1.3 Turbine design and tip height:

Page 5: "The wind farm proposal consists of 9 turbines with a maximum turbine tip-height of 180 meters."

9.2. Objection: Technical deficiencies & risk of harm

Based on the quoted evidence, the following points are raised:

1. Unresolved Three Ireland PTP clearance — the TIA does not confirm acceptable clearances.
2. Lack of binding operator sign-off or enforceable mitigation plans.
3. Multiple ESB Point-to-Multipoint (UHF) radio links cross the site and require confirmed protection.
4. Missing data on first-Fresnel zone clearance (percent clearance, link budgets, assumptions).
5. No post-construction verification or remediation framework.
6. Risk to critical infrastructure (ESB telemetry, mobile backhaul, etc.).

9.3. Relief and conditions requested

I respectfully request An Bord Pleanála to refuse permission for Cooloo Wind Farm until robust, operator-approved mitigations are secured. If permission is granted, I request the following pre-conditions:

1. Binding, written technical sign-off from each affected operator (Three Ireland, ESB, others).
2. Publication of full radio link budgets and Fresnel zone calculations for each affected link.
3. Independent engineering review of the TIA and mitigations prior to any grant.
4. Pre- and post-construction signal verification with remediation obligations.
5. Compliance with ITU-R P.530 guidelines ($\geq 60\%$ first-Fresnel clearance).

9.4. Conclusion

Granting permission for turbines with 180 m tip heights without resolved technical safeguards would pose an unacceptable risk to licensed radio networks. The applicant's own TIA confirms that further consultation with Three Ireland and ESB is required. Until all operators have formally accepted the mitigations, permission should be refused or conditioned as above.

9.5 Technical Annex – Telecommunications Impact Summary

1. Fresnel Zone Clearance:

Radio links rely on a clear Fresnel zone (elliptical region between antennas). ITU-R P.530 and ComReg guidance recommend at least 60 % of the first Fresnel zone remain obstruction-free to prevent diffraction losses. A turbine intruding into this zone can cause reflection, diffraction, or scattering, resulting in signal fading and loss of availability.

2. Wind Turbines and Radio Links:

Large turbines (tip heights > 150 m) can block or reflect line-of-sight paths used by microwave, UHF, or point-to-point links. Effects include increased bit-error rate, intermittent dropouts, and complete link outage, particularly under wet or foggy conditions where reflection losses intensify.

3. Cooloo Wind Farm Specific Risks:

Appendix 15-4 acknowledges both Three Ireland and ESB links traverse the development area, with only ~11.4 m clearance from the second Fresnel zone at one turbine. Without detailed first-Fresnel clearance data, there is no assurance that 60 % clearance is achieved. Moreover, mitigation measures (e.g., relays) remain subject to further consultation, providing no current protection guarantee.

4. Mitigation Measures:

Typical mitigations include turbine micro-siting, rerouting affected links, installing relay stations, or antenna re-alignment. These must be designed, costed, and approved by the licence holders (Three Ireland, ESB, others) before construction. Post-construction verification ensures no degradation of link quality.

5. Recommendation:

An independent telecommunications engineer should verify link clearances and mitigation adequacy per ITU-R P.530 and ComReg standards. All results should be part of enforceable planning conditions, with remediation funding guaranteed by the developer.

10 Risk of maladaptation

10.1. Lack of adequate alignment with adaptation policy — risk of maladaptation

The National Adaptation Plan 2025 (NAP 2025) emphasises that adaptation actions must not create new vulnerabilities (p.42). The proposed wind farm is positioned as a mitigation measure but fails to demonstrate alignment with adaptation objectives such as climate resilience, hydrology protection, peat stability, and flood-risk avoidance. Disturbance of peatland can increase runoff, downstream flooding, carbon emissions, and soil instability, representing maladaptation if not addressed.

10.2. Insufficient integration of mitigation and adaptation, and just transition

NAP 2025 requires adaptation planning to consider mitigation and vice versa. The proposal heavily emphasises renewable generation but lacks substantial adaptation co-benefits. The CCAC's 2023 review stresses integrating just transition principles into both mitigation and adaptation. Limited community-centred benefits or protections risk creating inequities, contrary to just transition principles.

10.3. Conflict with sequential approach for flood-risk planning

NAP 2025 reiterates national flood-risk policy that development in high-risk areas should be avoided. The site includes peat and hydrologically sensitive ground. Hydrological disturbance from construction could create or worsen vulnerabilities. Locational zoning that is "Generally to be Discouraged" indicates the development may not meet the sequential approach.

10.4. Inadequate demonstration of long-term consequences

NAP 2025 requires careful evaluation of long-term adaptation impacts. While the project has design flexibility, it lacks clear plans for peat restoration, long-term hydrological stability, and decommissioning under future climate scenarios. These oversights risk long-term maladaptation.

10.5. Maladaptation risk due to hydrological disturbance

The site is peat-influenced with shallow water tables and hydrological connectivity to streams and wetlands. Construction may alter drainage pathways, water levels, and runoff patterns, increasing downstream flood risk and destabilising local peat structures. These vulnerabilities contradict NAP 2025's maladaptation avoidance principle and the guidance to avoid flood-sensitive development.

10.6. Floating roads: instability, peat failure and increased vulnerability

Floating roads indicate saturated, unstable peat. They can cause differential settlement, cracking, shear failure, water diversion, and peat oxidation. Climate-change-driven rainfall amplification increases these risks over the project's lifetime. If road failure or hydrological disruption occurs, this would be clear maladaptation and breach NAP 2025's requirement to avoid new vulnerabilities.

10.7. Habitat and ecosystem risks

Peatlands and wetlands provide essential climate-adaptation ecosystem services: carbon storage, flood buffering, water regulation, and biodiversity resilience. Hydrological disturbance and peat compaction threaten these functions. Habitat degradation undermines adaptation, violating NAP principles requiring integrated mitigation-adaptation planning and just transition.

10.8. Cumulative hydrological risks

The application lacks a climate-adjusted hydrological model and does not assess cumulative impacts of roads, hardstands, turbines, cable trenches, and drainage changes across the peat mosaic. Without this, long-term risks cannot be evaluated, contrary to NAP requirements.

10.9. Sequential approach not satisfied

Use of floating roads suggests a hydrologically high-risk site. The developer has not demonstrated exhaustive consideration of alternative sites or layouts, meaning the project cannot be deemed compliant with the sequential avoidance requirement for flood-risk management.

10. Summary of Objection Points

- Floating roads pose long-term hydrological and structural risks, especially under climate-change rainfall patterns.
- The project risks maladaptation by increasing downstream flood hazard, degrading peatlands, and destabilising hydrology.
- Hydrological systems and peatlands are insufficiently assessed for cumulative and long-term impacts.
- The development does not satisfy the sequential approach for flood-risk avoidance.
- Habitat degradation would weaken climate-adaptation ecosystem services.
- Adaptation and mitigation are not integrated as required under NAP 2025.
- Just transition considerations are insufficiently addressed.

I request refusal of the Cooloo Wind Farm planning application unless robust hydrological, ecological, and maladaptation-avoidance assessments are provided and aligned with NAP 2025 principles.

Chapter 11 Birds

The proposed development presents unacceptable risk of significant adverse impacts to wild bird species of high conservation concern — including species listed on the Irish Red List (BoCCI4) and species protected under the EU Birds Directive (Directive 2009/147/EC).

Red-listed species recorded on the site include:

- Barn Owl (*Tyto alba*)
- Curlew (*Numenius arquata*)
- Golden Plover (*Pluvialis apricaria*)
- Grey Wagtail (*Motacilla cinerea*)
- Kestrel (*Falco tinnunculus*)
- Lapwing (*Vanellus vanellus*)
- Meadow Pipit (*Anthus pratensis*)
- Pochard (*Aythya ferina*)
- Redwing (*Turdus iliacus*)
- Shoveler (*Spatula clypeata*)
- Snipe (*Gallinago gallinago*)
- Swift (*Apus apus*)
- Woodcock (*Scolopax rusticola*)

The EU Birds Directive requires Member States to protect wild birds, their habitats, and prevent deterioration of areas important to their survival. The presence of multiple Red-listed species means the planning authority must apply a precautionary approach. These species are experiencing severe population declines and are highly sensitive to disturbance, habitat loss, and collision risk associated with wind turbines.

Specific Concerns:

- Ground-nesting waders (Curlew, Lapwing, Snipe) are highly vulnerable to habitat disturbance and loss.
- Raptors such as Barn Owl and Kestrel may suffer increased collision risk and loss of hunting territory.
- Wetland species (Pochard, Shoveler) may be impacted by hydrological changes and disturbance.
- Swift, now Red-listed, may experience disruption to foraging routes and airspace.

11.1 Requested Outcome:

I request that the planning authority refuse the application unless it can be demonstrated beyond reasonable doubt that the development will not harm the favourable conservation status of these species. If approval is considered, conditions such as turbine curtailment, habitat protection, and long-term monitoring should be imposed.

11.2 Conclusion:

Given the strong legal protections and the presence of multiple Red-listed species, I urge the authority to refuse the Cooloo Wind Farm application unless comprehensive safeguards are provided.

Chapter 12 Bats

All bat species in Ireland are listed under Annex IV(a) of the EU Habitats Directive (92/43/EEC), which requires a strict protection regime. This prohibits deliberate capture, killing, disturbance, or deterioration/destruction of breeding sites or resting places. The EIAR for the Cooloo Wind Farm identifies the presence or likely presence of several bat species, including Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, and Daubenton's Bat, all of which are strictly protected under EU law.

The presence of these species triggers stringent obligations under Article 12 of the Habitats Directive. Where these protected species are recorded or their habitats are present, any risk of collision mortality, barotrauma, disturbance along commuting routes, or loss of foraging habitat

constitutes a potential breach of EU law. The EIAR acknowledges activity levels across the site, yet provides insufficient evidence that the proposed mitigation (including curtailment) will reduce impacts to a level compliant with Article 12. Because derogations are only permissible in exceptional circumstances and with proof of no satisfactory alternative, failure to demonstrate zero risk of disturbance or mortality means that permission cannot be granted

FINAL CONCLUSION

Considering the extensive and irreversible destruction outlined in the proposed Cooloo Windfarm Planning Application—including the loss of Annex I peatland habitats, hydrological disruption of sensitive bog systems, risk to drinking-water sources, fragmentation of ecological networks, increased vulnerability to peat failure, threats to biodiversity, and the erosion of residential amenity and constitutional rights—I respectfully ask An Coimisiún Pleanála to clarify:

To what degree of environmental degradation, habitat destruction, hydrological alteration, and community impact can a development still be classified as “green energy”?

More specifically:

- At what point does the scale of ecological loss render a project incompatible with national climate-adaptation goals, biodiversity commitments, and the principles of sustainable development?
- How can a development that damages peatlands—Europe’s most effective natural carbon sinks—be credibly considered a climate-positive intervention?
- What threshold of harm to local families, vulnerable receptors, water systems, and protected habitats is An Coimisiún Pleanála prepared to accept under the label of renewable energy?

Given Ireland’s legal obligations under the EIA Directive, the Habitats Directive, the Water Framework Directive, and the Galway County Development Plan, I request that the Board explicitly address how such destruction can be reconciled with claims of environmental sustainability and climate responsibility.

For all the reasons set out in this submission, it is clear that the proposed Cooloo Wind Farm represents an unacceptable, unjustified, and unlawful intrusion on the environment, the community, and on my family’s constitutional rights. The EIAR is materially deficient across multiple critical chapters, including noise, shadow flicker, peat stability, hydrology, biodiversity, telecommunications, human health and population, and project-splitting. The application relies on outdated standards, incomplete assessments, speculative mitigation, and unjustified assumptions of perfect system performance. It fails to address known national precedents of nuisance, peat failure, and environmental harm, and ignores binding Irish and EU case law.

The cumulative evidence demonstrates that this proposal cannot meet the requirements of the EIA Directive, the Habitats Directive, the Water Framework Directive, or the Galway County Development Plan 2022–2028. It places a disproportionate and intolerable burden on nearby residents, including my own family, and exposes the planning authority to foreseeable legal, environmental, and public-health risks.

In circumstances where the developer has not provided the full, accurate, and scientifically robust information required by law—information which is an absolute prerequisite to any lawful grant of permission—I submit that An Coimisiún Pleanála has no basis upon which it could safely or legally approve this development.

Accordingly, I respectfully but firmly request that planning permission for the Cooloo Wind Farm be refused in its entirety. I further ask that I be notified of any further information submitted by the developer, any responses to this objection, or any other correspondence or decisions relating to this application.

Anita Nolan

Signed

Date: 21st November 2025