

OBJECTION TO PLANNING APPLICATION

Tirawley Wind Farm, Parish of Lacken, Co. Mayo

Case Reference: PAX16.324258 | An Coimisiún Pleanála

APPLICANT:	Constant Energy Limited
DEVELOPMENT:	16 × Vestas V117 4.3 MW Wind Turbines + 150 MW BESS, 20 Units
SUBMITTED BY:	Liam Donoghue, Receptor H45, Parish of Lacken, Co. Mayo Carrickanass, Carrowmore Lacken, Ballina, Co. Mayo, F26 R9C2 liam.donoghue@yahoo.ie
FOLIO:	MY85163F
DATE:	25 June 2026
CASE NUMBER:	PAX16.324258

SUBMISSION OVERVIEW — 48 OBJECTION GROUNDS

COMMUNITY OBJECTIONS (Grounds 1–7)

- G-1: Residential and Property Impact
- G-2: Site Suitability and Landscape Impact
- G-3: Environmental and Ecological Concerns
- G-4: Impact on Hen Harrier Habitat

CRITICAL LEGAL AND STATUTORY DEFECTS (Grounds 8–16)

- G-8: Appropriate Assessment / Habitats Directive [C-127/02]
- G-9: BESS never scoped (PCX16.323906) — procedural nullity
- G-10: BESS = separate development requiring own EIAR
- G-11: COMAH / Seveso III — 150 MW BESS major accident hazard
- G-12: No Natura Impact Statement — Lackan Bay SAC / Killala Bay SPA
- G-13: Boundary misrepresentation — MY85163F shown as applicant land
- G-14: WHO 2018 Night EXCEEDED — 40.2 dB at H45 (~41.4 dB cumulative)
- G-15: Private bore well (40m) — WFD / Groundwater Directive unassessed
- G-16: AT02 coordinate discrepancy — 257 metre positional error

SIGNIFICANT SAFETY, HEALTH & ASSESSMENT DEFECTS (11 grounds)

- G-17: St Patrick's College Lacken Cross — misclassified as domestic dwelling
- G-18: BESS fire / thermal runaway at 512m — no consequence modelling
- G-19: Cumulative noise (turbines + BESS) NEVER calculated — ~41.4 dB
- G-20: Shadow flicker 33h 48min — exceeds 30-hour guideline by 12.7%
- G-21: ADHD clinical diagnosis — vulnerability completely unassessed
- G-22: Bat surveys below 10°C BCT threshold — non-compliant methodology
- G-23: Marsh Fritillary CONFIRMED PRESENT — Objector's photographs [Annex II]
- G-24: Mitigation enforceability failure — Webster [2024] IEHC
- G-25: BESS ALAN — unassessed night lighting at 512m from ADHD receptor
- G-26: Construction noise contradicts own ambient data; BESS unassessed
- G-27: CEMP names Limerick City and County Council — wrong authority

MATERIAL OMISSIONS & REGULATORY NON-COMPLIANCE (21 grounds)

- G-5: Traffic and Infrastructure Impact
- G-28: Habitats and Biodiversity assessment
- G-29: Cumulative Impact and Strategic Considerations
- G-30: Jennings O'Donovan — applicant/consultant independence not declared
- G-31: Lesser Horseshoe Bat (Annex II) — inadequate surveys
- G-32: Nathusius' Pipistrelle (EUROBATS migratory) — non-compliant surveys
- G-33: BESS groundwater contamination (LiPF₆) — WFD unaddressed
- G-34: No BESS emergency response / evacuation plan at 512m
- G-35: ISIF / NTMA State investment conflict — undisclosed
- G-36: RSK-Ares financial chain — undisclosed indirect funder
- G-37: Survey data from 2022 — invalid for revised 2024/25 layout
- G-38: AT03 — no nearest receptor noise data presented
- G-39: Migratory birds — north Mayo coastal flyway unassessed
- G-40: BESS lifecycle — EU Batteries Regulation 2023/1542 unaddressed
- G-41: No BESS photomontages — visual impact of 20-unit compound
- G-42: Mayo County Council on record opposing this development
- G-43: Bore well vibration / hydrogeological assessment absent
- G-44: Microplastics / blade erosion — bore well catchment unassessed
- G-45: Infrasound, LFAN and amplitude modulation unassessed
- G-46: CPH2 / hydrogen hub commercial dependency undisclosed
- G-47: No EMF / EMI assessment for cables, substation or BESS
- G-48: Construction traffic — no H45 route-specific noise assessment

PART A

Formal Objection Letter and Submitter Details

The Secretary
An Coimisiún Pleanála
64 Marlborough Street
Dublin 1
D01 V902

Liam Donoghue
Carrickanass
Carrowmore Lacken
Ballina
Co. Mayo
F26 R9C2
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25th June 2026

Re: Objection to the Proposed Tirawley Wind Farm Strategic Infrastructure Development — Submission to An Coimisiún Pleanála

Re: Planning permission for the construction of Tirawley Wind Farm consisting of 16 no. wind turbines, a permanent 110kV substation, 110kV underground cable and grid connection, and ancillary development in the townlands of Ballymurphy, Ballynaleck, Barnhill Lower & Upper, Barroe, Billoos, Carn, Carrickanass, Carrowmore, Castlелacken Demesne, and other townlands in County Mayo.

Case Number: PAX16.324258

Dear Sir/Madam,

I am writing as a resident living in close proximity to the proposed Tirawley Wind Farm development in Carrowmore Lacken, Co. Mayo, to formally lodge my objection to this Strategic Infrastructure Development (SID) application. This development, submitted by Constant Energy Limited, poses significant and irreversible risks to the local environment, biodiversity, residential amenity, and community wellbeing. These risks, coupled with material shortcomings in the Environmental Impact Assessment Report (EIAR) and procedural deficiencies in the application, justify a refusal of planning permission.

Having carefully reviewed the application documentation, and having consulted with other affected residents, I wish to raise the following objections. An overview of all 48 grounds is set out below, followed by detailed submissions under each heading.

GROUND S OF OBJECTION — OVERVIEW

COMMUNITY OBJECTIONS — Grounds 1–7	
1	Residential and Property Impact
2	Site Suitability and Landscape Impact
3	Environmental and Ecological Concerns
4	Impact on Hen Harrier Habitat
5	Traffic and Infrastructure Impact
6	Community and Socio-Economic Issues
7	Cumulative Impact and Strategic Considerations

CRITICAL LEGAL AND STATUTORY DEFECTS — Grounds 8–16

- 8 Appropriate Assessment / Habitats Directive — cannot be screened out [C-127/02]
- 9 BESS never scoped in PCX16.323906 — procedural nullity of BESS component
- 10 BESS constitutes separate development requiring its own independent EIAR
- 11 COMAH / Seveso III — 150 MW BESS is a major accident hazard, unassessed
- 12 No Natura Impact Statement for Lackan Bay SAC / Killala Bay SPA
- 13 Boundary misrepresentation — Folio MY85163F shown as applicant land, no agreement currently in place
- 14 WHO 2018 Lnight 40 dB EXCEEDED at H45 (40.2 dB; ~41.4 dB cumulative with BESS)
- 15 Private bore well (40m depth) — WFD / Groundwater Directive not assessed
- 16 AT02 coordinate discrepancy — 257 metre positional error between documents

SIGNIFICANT SAFETY, HEALTH & ASSESSMENT DEFECTS — Grounds 17–27

- 17 St Patrick's College Lacken Cross misclassified as a domestic dwelling
- 18 BESS fire / thermal runaway — no HF/toxic gas consequence modelling at 512m
- 19 Cumulative noise (turbines + BESS) never calculated — ~41.4 dB at H45
- 20 Shadow flicker worst-case 33h 48min — exceeds 30-hour guideline by 12.7%
- 21 ADHD clinical diagnosis — vulnerability completely unassessed in EIAR
- 22 Bat surveys below 10°C mandatory BCT threshold — invalidating baseline data
- 23 Marsh Fritillary (*Euphydryas aurinia*) — CONFIRMED PRESENT, no adequate survey
- 24 Mitigation enforceability failure — Webster & Anor v Meenacloghspar [2024] IEHC
- 25 BESS artificial light at night (ALAN) — undisclosed, unassessed, unmitigated
- 26 Construction noise contradicts own ambient data; BESS phases not assessed
- 27 CEMP names Limerick City and County Council — wrong authority entirely

MATERIAL OMISSIONS & REGULATORY NON-COMPLIANCE — Grounds 28–48

- 28 Constant Energy — undisclosed conflicts of interest and associated entities
- 29 Jennings O'Donovan — applicant/consultant independence not declared
- 30 Habitat loss — hedgerows and semi-natural habitats, no NPWS-standard survey
- 31 Lesser Horseshoe Bat (Annex II) — survey defects compounded by ALAN impacts
- 32 Nathusius' Pipistrelle (EUROBATS migratory bat) — temperature non-compliant surveys
- 33 BESS groundwater contamination (LiPF_6) — WFD not separately addressed
- 34 No BESS emergency response or evacuation plan submitted for residents at 512m
- 35 ISIF / NTMA structural State financial conflict of interest
- 36 RSK / Ares Management — engineering consultant to BESS investor chain, undisclosed
- 37 Survey data from 2022 — invalid for revised 2024/25 turbine layout
- 38 AT03 — no nearest receptor noise data presented
- 39 Migratory birds — north Mayo coastal flyway not assessed [Birds Directive Annex I]
- 40 BESS lifecycle — EU Batteries Regulation 2023/1542 not addressed
- 41 No BESS photomontages — visual impact of 20-unit compound unassessed
- 42 Mayo County Council on record opposing this type of development
- 43 Bore well — no vibration or hydrogeological assessment

44	Microplastics / blade erosion — bore well catchment unassessed
45	Infrasound, low-frequency noise and amplitude modulation unassessed
46	CPH2 / hydrogen hub commercial dependency undisclosed
47	No EMF / EMI assessment for cables, substation or BESS
48	Construction traffic — no H45 route-specific noise or vibration assessment

PART A — GROUNDS 1–7: COMMUNITY OBJECTIONS

1. Residential and Property Impact

The proposed wind turbines are located uncomfortably close to existing homes. Despite the stated 540m buffer, the visual impact, noise pollution, and potential shadow flicker effects will significantly disrupt residential amenity and quality of life. My property at Folio MY85163F (Receptor H45 in the applicant's noise assessment) is located 796 metres from the nearest turbine (AT01) and 512 metres from the BESS compound. The applicant's own noise modelling predicts 40.2 dB LA90 at this receptor at wind speeds of 8+ m/s — exceeding the WHO (2018) Night guideline of 40 dB. There is also genuine and well-founded concern about property devaluation in proximity to large-scale industrial turbines and a 150 MW battery energy storage compound.

Reference: Appendix 1.6 Community Engagement Report, Pages 7–13; EIAR Chapter 10 (Noise Assessment)

2. Site Suitability and Landscape Impact

The location has been assessed as scattered and not suitable for a development of this scale by Mayo County Council at pre-application stage, where MCC confirmed it was 'not in favour' of the development on two separate occasions. The area includes sensitive landscapes visible from the Wild Atlantic Way and other designated scenic routes, which would be adversely and irreversibly affected by 16 turbines at 135 metres tip height. The visual intrusion on the unique coastal and rural landscape of north Co. Mayo is unacceptable and contrary to the policies outlined in the Mayo County Development Plan regarding landscape protection and visual amenity. Turbines will also be visible from Céide Fields, which is on Ireland's Tentative List for UNESCO World Heritage Site designation.

Reference: Mayo County Council submission; EIAR Chapter 13 (Landscape and Visual Impact Assessment); Planning Statement, Pages 69–71

3. Environmental and Ecological Concerns

The site includes sensitive habitats — blanket bogs, wet grassland, and peatland — of ecological significance under the Habitats Directive and the Wildlife Acts 1976–2012. The large volumes of peat to be excavated during turbine foundation and access road construction, and the disturbance to these habitats, could have long-term detrimental effects on biodiversity and peatland carbon storage. The development will result in the removal of substantial hedgerow and semi-natural habitat, which constitutes a material loss of ecological connectivity across the landscape. I have personally planted over 20 native Irish tree and shrub species on one acre of land at my property. The ecological connectivity of this landscape is something I have direct, personal knowledge of and commitment to.

Reference: Appendix 1.6 Community Engagement Report, Pages 13–14; EIAR Chapter 6 (Ecology and Nature Conservation)

4. Impact on Hen Harrier Habitat

I am particularly concerned about the impact of the proposed development on the Hen Harrier (*Circus cyaneus*), an Annex I protected species under the EU Birds Directive whose Irish population has declined significantly in recent years. The EIAR acknowledges that Hen Harriers are present within the study area and that the site provides suitable autumn and winter foraging habitat. The site contains a combination of blanket bog, scrub, wet grassland, semi-improved grassland, and hedgerow networks — all important habitats for foraging and roosting Hen Harriers.

Of particular concern is that a winter Hen Harrier roost was recorded within the study area, yet no comprehensive winter roost survey appears to have been undertaken across the wind farm site itself. The applicant's roost surveys focused

primarily on areas outside the development footprint, despite evidence that Hen Harriers utilise habitats within the proposed development area. In the absence of a robust assessment of winter roosting activity within the development footprint, it is not possible to conclude that the impacts on this protected species have been fully assessed.

The development will result in the permanent loss and fragmentation of habitats used by Hen Harriers, including substantial hedgerow removal, loss of blanket bog habitat, and the construction of extensive site roads and infrastructure. Research has shown that Hen Harriers may avoid otherwise suitable habitat in the vicinity of operational turbines, resulting in reduction of available foraging area. The application does not adequately assess or mitigate this displacement effect. Given the conservation status of the species, the acknowledged presence of suitable habitat, and recorded winter roosting activity within the study area, the precautionary principle must apply.

Reference: EIAR Chapter 6 (Ecology — Ornithology); Birds Directive 2009/147/EC Annex I

5. Traffic and Infrastructure Impact

The construction phase will bring significant disruption to the local road network through the delivery of abnormal loads and turbine components. Existing roads will require widening and modifications that will impact local traffic flow and road safety. The additional construction traffic for the BESS compound — battery containers and transformer units requiring abnormal load haulage — has not been separately assessed against the same bridge and road network as the turbine deliveries. The scale of this impact has not been adequately mitigated in the proposal.

Reference: EIAR Chapter 17 (Traffic and Transport), Pages 6–10; Appendix 1.6 Community Engagement Report, Pages 11–12

6. Community and Socio-Economic Issues

While I acknowledge the need for renewable energy, the socio-economic impact on sustainable family farms and local amenities is a genuine concern. The proposal does not sufficiently address the community's needs or provide clear, direct, and enforceable benefits to local residents. The proposed community benefit package remains vague and unenforceable. I also note that Lacken is not, as characterised in some application documents, merely 'between Killala and Ballina' — it is a distinct community at the meeting point of four historic parishes: Killala, Ballycastle, Lacken, and Kilfian. This community identity deserves accurate recognition in the planning process.

Reference: Appendix 1.6 Community Engagement Report, Pages 7–14

7. Cumulative Impact and Strategic Considerations

The project must be assessed cumulatively with other existing and proposed developments across the north Mayo and Sligo Atlantic coastline — including Glenora Wind Farm (22 turbines, consented May 2026), Sheskin South (18 turbines), Oweninny Phases 1 and 2 (192 MW operational), and several further applications pending. The combined effect of over 100 large turbines across a geographically confined coastal Atlantic flyway creates cumulative environmental, visual, and ecological pressures that have not been adequately assessed in this application. The scale and height of modern turbines, as noted by Mayo County Council, raise fundamental questions about the suitability of this site.

Reference: Mayo County Council submission; EIAR Chapter 3 (Alternatives) and Chapter 13 (Landscape)

I wish to adopt and support the detailed submission made by the Lacken Ballycastle Community Landscape Protection Group in relation to the proposed Tirawley Wind Farm development (PAX16.324258). In particular, I endorse the concerns raised regarding cumulative wind farm development across North Mayo, impacts on the Céide Fields cultural landscape, effects on tourism and recreation, biodiversity impacts, inadequacies in community consultation, and the assessment of the Battery Energy Storage System. While I do not repeat those detailed arguments in full, I request that they be considered as forming part of this submission.

I also wish to raise the following further personal and technical objections (Grounds 8–48), which are set out in full detail in Parts B, C, and D of this submission.

In conclusion, I respectfully submit that the proposed Tirawley Wind Farm project is not appropriate for this location due to the significant negative impacts on residential amenity, local landscape, ecology, infrastructure, health, and the

community. The application contains material errors, procedural deficiencies, and unassessed risks — each of which is documented in detail in the grounds of objection that follow. I urge An Coimisiún Pleanála to refuse permission for this development in the interests of proper planning and sustainable development.

Thank you for considering my submission.

Yours faithfully,

Liam Donoghue

Owner — Folio MY85163F, Parish of Lacken, Co. Mayo

B.Sc. (Hons.) Animal Ecology, University of Aberdeen

Submitter Details

The Objector's lands at Folio MY85163F are situated within the Parish of Lacken, Co. Mayo — the meeting point of four historic parishes: Killala, Ballycastle, Lacken, and Kilfian — at ITM coordinates Easting 515,864.2228 / Northing 833,236 (designated Receptor H45 in the applicant's noise and shadow flicker assessments). The Objector is in sole occupation of this land and maintains a private bore well at 40 metres depth as the exclusive domestic water supply for the household.

The Objector has a clinical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD), a recognised medical condition under the Disability Act 2005 (Ireland) and the Equality Acts 2000–2015, conferring heightened sensory sensitivity to noise, light, and environmental disturbance. This vulnerability is entirely unaddressed in the applicant's EIAR (see Ground 21).

Nature and scope of objection: This is a comprehensive objection addressing forty-eight (48) distinct grounds ranked by legal and regulatory severity, supported by six detailed appendix submissions (Part H) addressing Conflicts of Interest, Boundary Misrepresentation, No Confidence in Applicant Competence, BESS (20 grounds), Bat Ecology (12 grounds), and Migratory Species (6 grounds).

Method of document retrieval: All planning documents cited are sourced from the applicant's public disclosure website at tirawleywindfarm.com and from An Coimisiún Pleanála's public access portal at pleanala.ie/en-IE/Case/324258.

Distances from Receptor H45 to Principal Development Elements

Structure	Distance (m)	Bearing	Significance
Substation	486 m	Due North	Closest infrastructure element
BESS (20 units)	512 m	N (359°)	Thermal runaway / fire / ALAN risk
AT01 (nearest)	796 m	NNW (350°)	Nearest turbine — dominant noise source
AT04	977 m	W (267°)	Second closest
AT03	1,080 m	WSW (249°)	Upwind from prevailing SW winds
AT02	1,097 m	SW (234°)	Positional error: 257m discrepancy

Sources: Applicant's EIAR Chapter 10 (Noise), EIAR Chapter 7 (Shadow Flicker), Drawing 6289-PL-100

PART B

Critical Legal and Statutory Defects

The following nine grounds represent fundamental defects that go to the root of the application's lawfulness. Each constitutes, individually, a basis upon which An Coimisiún Pleanála is required to either refuse permission or, at minimum, to require substantial further information. Collectively they demonstrate a planning application that cannot properly be granted in its current form.

Ground 8 **Appropriate Assessment / Habitats Directive — Cannot Be Screened Out**

The obligation: Under Article 6(3) of the Habitats Directive (92/43/EEC), as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011), An Coimisiún Pleanála is required as competent authority to carry out an Appropriate Assessment of the proposed development where it cannot be excluded, on the basis of objective information, that the development will have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects.

The Natura 2000 sites at risk: The Tirawley Wind Farm site is in the vicinity of multiple designated sites including Lackan Bay SAC, Killala Bay SPA, and Killala Bay and Moy Estuary Special Protection Area. The project's drainage catchment runs to these coastal sites. The BESS facility, turbine construction ground-works, cable routes, and access road construction all present potential hydrological and noise pathways to these designated areas.

The legal standard: The European Court of Justice has consistently held (inter alia, C-127/02 Waddenzee; C-304/05 Commission v Italy) that the Appropriate Assessment must assess all aspects of the plan or project which can, individually or in combination with other plans or projects, affect the site's conservation objectives. The standard is the absence of reasonable scientific doubt as to the absence of significant adverse effects. On the basis of the application as submitted, that standard cannot be met. The failure to submit a full Natura Impact Statement for the BESS component is a significant procedural defect.

The Appropriate Assessment obligation under the Habitats Directive is mandatory EU law. It cannot be waived, derogated from, or overridden by domestic planning considerations. The European Court of Justice has made it unequivocal that the burden of proof lies on the competent authority to establish, beyond reasonable scientific doubt, that the proposed development will not adversely affect the integrity of any Natura 2000 site. In the absence of a full Natura Impact Statement covering all components including the BESS, the 150 MW grid connection, and all construction activities, An Coimisiún Pleanála cannot lawfully grant planning permission.

Sources: Habitats Directive 92/43/EEC Art. 6(3); S.I. 477/2011; C-127/02 Waddenzee [2004] ECR I-7405; C-304/05 Commission v Italy [2007]; C-241/08 Commission v France; C-258/11 Sweetman v An Bord Pleanála [2013]

Ground 9 **BESS Never Scoped (PCX16.323906) — Procedural Nullity of BESS Component**

The defect: The pre-application consultation process, Case Reference PCX16.323906, decided on 18 March 2026, forms the procedural gateway to this Strategic Infrastructure Development application. The BESS component — comprising 20 battery container units with a capacity of up to 150 MW — is of major scale and introduces distinct risks (COMAH, fire safety, water contamination, light pollution) that were not assessed during the pre-application scoping exercise.

Procedural consequence: An Coimisiún Pleanála's scoping opinion defines the parameters within which the EIAR must be prepared. Where a significant development component has not been scoped, the resulting EIAR cannot be treated as legally adequate. The statutory purpose of the scoping stage is precisely to ensure that all significant effects are identified

and assessed. The inclusion of a 150 MW BESS installation — which would independently require an EIAR in its own right — as a late addition not encompassed by the scoping opinion is a procedural irregularity that goes to the root of the application.

Sources: Planning and Development Acts 2000–2024; EIA Directive 2011/92/EU as amended by 2014/52/EU; European Communities (Environmental Impact Assessment) Regulations 2011 (as amended); PCX16.323906

Ground 10 BESS = Separate Development Requiring Independent EIAR

The argument: The proposed BESS installation — 20 battery container units, total capacity up to 150 MW — is not an incidental or ancillary element of the wind farm. It is a major industrial installation in its own right. Under the EIA Directive (2011/92/EU as amended by 2014/52/EU) and the Planning and Development Regulations 2001 (as amended, Schedule 5), an electricity storage installation of this capacity would independently require EIA screening and, in all probability, a full EIAR, given its scale, the sensitivity of the receiving environment, and the COMAH implications discussed in Ground 11.

The BESS facility in the present application has been assessed as an ancillary element of the wind farm. Its noise, lighting, fire risk, groundwater risk, visual impact, and ecological impact have been either minimised or not separately assessed. The approach adopted by the applicant — rolling a 150 MW BESS into a wind farm EIAR without independent assessment — is contrary to the requirements of the EIA Directive and the precautionary principle.

Sources: EIA Directive 2011/92/EU as amended; Planning and Development Regulations 2001, Schedule 5; EPBC Act analogues (Australian precedents for BESS EIA); Irish EPA BESS environmental guidance

Ground 11 COMAH / Seveso III — 150 MW BESS Major Accident Hazard Unassessed

The defect: The proposed BESS installation consists of 20 battery container units with a collective energy storage capacity of up to 150 MW. Lithium-ion battery storage systems of this scale can trigger obligations under the Control of Major Accident Hazards (COMAH) Regulations 2015 (S.I. 209/2015), which transpose the Seveso III Directive (2012/18/EU) into Irish law.

The risk: Large-scale BESS installations have been identified by the European Commission, the Health and Safety Authority (Ireland), and leading scientific bodies as presenting significant major accident hazard potential. The hazards include:

- Thermal runaway — a self-propagating exothermic reaction within lithium-ion cells that, once initiated, is extremely difficult to extinguish;
- Toxic gas release — peer-reviewed research (Ribi  re et al., 2012; Sturk et al., 2017) has established that lithium-ion battery fires generate hydrogen fluoride (HF) gas at rates of 20–200 mg/Wh of nominal battery capacity, as well as phosphoryl fluoride (POF₃) and a range of volatile organic compounds. At a 150 MW / 150,000 kWh installation, the potential HF emission volume is substantial;
- Explosion risk — where battery gases are not immediately ignited, a delayed gas explosion is a realistic consequence;
- Groundwater contamination — electrolyte leakage from a BESS fire event into the underlying karst/glacial till aquifer system.

Proximity to H45: The BESS installation is situated 512 metres due north of the Objector's residence. No consequence modelling — dispersion modelling, fire plume analysis, toxic gas transport modelling — has been carried out to assess the impact of a BESS fire event at this distance on residential receptors.

Sources: Seveso III Directive 2012/18/EU; S.I. 209/2015 (COMAH Regulations Ireland); Sturk et al. (2017) 'Toxic fluoride gas emissions from lithium-ion battery fires', Scientific Reports; Ribi  re et al. (2012) Journal of Power Sources

Ground 12 No Natura Impact Statement for Lackan Bay SAC / Killala Bay SPA

As addressed in Ground 8, the application is located within the hydrological catchment and ecological zone of Lackan Bay SAC and the Killala Bay and Moy Estuary Special Protection Area. A full Natura Impact Statement (NIS) addressing the potential effects of the wind farm, BESS, access infrastructure, and grid connection on these Natura 2000 sites has not been provided. The NIS is required to support the Appropriate Assessment obligation on An Coimisiún Pleanála as competent authority under the Habitats Directive. Without an adequate NIS, the Board cannot lawfully carry out an Appropriate Assessment and must either require one or refuse the application.

Mandatory nature of the obligation: The absence of a Natura Impact Statement is not a procedural irregularity that can be cured by condition. It goes to the jurisdiction of the Board to decide. An Coimisiún Pleanála, as competent authority, cannot delegate its Appropriate Assessment obligation to an applicant through a condition requiring a post- permission NIS. The NIS must be before the Board at the time of the decision. Its absence means that the Board cannot lawfully grant permission.

Sources: Habitats Directive Art. 6(3); S.I. 477/2011; ACP guidance on Natura Impact Statements; C-127/02 Waddenzee; Sweetman v An Bord Pleanála [2013] IESC 18

Ground 13

Blue Boundary Misrepresentation — Folio MY85163F — No Agreement in Place

The defect: The applicant's Site Layout Drawings (Drawing Schedule 6289-PL-100 and associated series, publicly accessible via tirawleywindfarm.com) delineate a blue boundary whose legend is marked "Land Under Control of the Applicant". The Objector's land at Folio MY85163F, Parish of Lacken, Co. Mayo, is shown within this blue boundary on the submitted drawings.

The factual position: No agreement, waiver, licence, consent, option, heads of terms, or any other form of legal or informal understanding is currently in place between the Objector and Constant Energy Limited, its directors, agents, or assigns, in respect of the Objector's land at Folio MY85163F. A representative of Constant Energy Limited contacted the Objector on multiple occasions, but no agreement was reached and no agreement is currently in place. The Objector strongly opposes this development.

Verification from the application documents: The Landowner Agreements (Letter of Consent) document submitted by the applicant as part of the planning application (accessible at tirawleywindfarm.com) lists sixteen (16) folios held by eleven (11) landowners who have consented to the development. Folio MY85163F does not appear in that document. The applicant has therefore submitted drawings asserting land control which is not evidenced in its own submitted consent documentation.

Legal consequences: The misrepresentation of Folio MY85163F as being within "land under control of the applicant" is a material error in the planning application as lodged. Under the Planning and Development Regulations 2001 (as amended), applicants are required to submit accurate information. The submission of a site layout drawing showing land as being under the applicant's control, when no such control exists and no agreement of any kind is currently in place, constitutes a material misstatement. An Coimisiún Pleanála is respectfully asked to:

- Require the applicant to correct the Site Layout Drawings to remove Folio MY85163F from the blue boundary;
- Consider whether this misrepresentation, taken with other errors identified in this submission, reflects a pattern of inaccuracy in the application documents.

Sources: Drawing 6289-PL-100; Landowner Agreements (Letter of Consent) — tirawleywindfarm.com; Land Registry Folio MY85163F

Ground 14

WHO 2018 Night 40 dB EXCEEDED at H45 — Cumulative ~41.4 dB with BESS

The excess: The World Health Organisation's Environmental Noise Guidelines for the European Region (2018) establish a conditional guideline value of 40 dB Lnight (annual average night noise level outside the dwelling) for wind turbine noise. This is the threshold below which WHO does not recommend action to reduce noise exposure from wind turbines for the

purpose of protecting sleep and health.

Metric	Value at H45	Limit / Guideline	Status
Predicted (8+ m/s)	40.2 dB LA90	40.0 dB WHO Lnight	EXCEEDS by 0.2 dB
ETSU night limit	43.0 dB LA90	43.0 dB ETSU-R-97	Margin: only 2.8 dB
BESS noise (H45)	33.9 dB LAeq	(Not limited)	Cumulative: ~41.4 dB*
Combined (est.)	~41.4 dB cumul.	40.0 dB WHO	EXCEEDS by 1.4 dB
Nearest monitor	NML831/H14	900+ m from H45	Not representative

* Logarithmic combination: $10 \times \log_{10}(10^{(40.2/10)} + 10^{(33.9/10)}) \approx 41.4$ dB. This calculation is the Objector's own; the applicant has never provided it.

Significance of 0.2 dB exceedance: While 0.2 dB may appear minor, this is a predicted value — that is, the applicant's own model output for the turbines in operation at high wind speed. Real-world noise levels are typically higher than modelled predictions due to: (a) amplitude modulation (the characteristic "swishing" or "thumping" noise generated by blade passage, not captured in LA90 metrics); (b) topographic effects; (c) turbine-to-turbine interaction effects; and (d) the fact that the nearest measurement station (NML831/H14) is situated more than 900 metres from H45 and cannot reliably represent the noise environment at H45. Furthermore, 73 properties across the development site are predicted to be within 5 dB of the ETSU-R-97 night limit, confirming that the scheme operates at the extreme margin of acceptability for the surrounding community.

ADHD context: For the Objector, who has a clinical diagnosis of ADHD, the WHO guideline is especially significant. There is substantial published evidence that individuals with ADHD have heightened auditory sensitivity and are disproportionately affected by environmental noise, particularly at night. The predicted WHO exceedance is therefore not merely a statistical technicality — it represents a material risk to the Objector's health and sleep (see also Ground 21 below).

Sources: WHO Environmental Noise Guidelines for the European Region, 2018 (ISBN 978-92-890-5356-3); ETSU-R-97 (UK DTI, 1997); Applicant's EIAR Chapter 10 (Noise Assessment); EPA (Ireland) Guidance on Wind Turbine Noise

Ground 15 Private Bore Well (40m Depth) — WFD / Groundwater Directive — Not Assessed

The resource at risk: The Objector's land at Folio MY85163F is served exclusively by a private bore well sunk to a depth of 40 metres. This well is the sole domestic water supply for the Objector's household. The bore well draws from the local quaternary aquifer system in north Co. Mayo, a system characterised by glacial till overlying limestone bedrock typical of the region.

Regulatory framework: The Water Framework Directive (WFD, 2000/60/EC), the Groundwater Directive (2006/118/EC), and the European Communities (Water Policy) Regulations 2003 (S.I. 722/2003) impose a non-deterioration obligation on groundwater bodies. Any development that could deteriorate groundwater quality or quantity must be assessed. The development proposes extensive groundwater-relevant activities including:

- Turbine foundation construction — driven or bored pile foundations with potential to penetrate the water table and create preferential pathways for surface contamination;
- Substation construction at 486 metres from H45 — transformer oil and dielectric fluids in proximity to a groundwater catchment;
- BESS installation at 512 metres — electrolyte chemicals (lithium hexafluorophosphate, organic carbonates) that are toxic to groundwater;
- Access road construction — hardstanding surfaces, silt runoff, fuel/lubricant spillage risk;

- Cable trench excavation — disruption of surface aquifer layers across the site.

The EIAR does not contain a hydrogeological assessment of the bore well at H45 or an analysis of the potential pathways from the BESS installation, substation, or turbine foundations to the Objector's bore well aquifer. This is a material omission.

Sources: WFD 2000/60/EC; Groundwater Directive 2006/118/EC; S.I. 722/2003; EPA (Ireland) Groundwater Protection Scheme guidance

Ground 16 AT02 Coordinate Discrepancy — 257 Metre Positional Error

The discrepancy: A material inconsistency exists within the application documents regarding the coordinates of Wind Turbine AT02:

Document	AT02 Northing	Difference
Drawing 6289-PL-100 (Site Layout)	832,846 m	—
EIAR Chapter 2, Table 2.3 (Turbine Schedule)	832,589 m	257 metres
AT03 Northing (both documents)	832,846 m	AT02 = AT03 in Drawing: error confirmed

Significance: A 257-metre discrepancy in the location of a turbine is not a trivial cartographic error. It has direct consequences for:

- Noise modelling — all propagation calculations in the EIAR are distance-dependent; a 257m positional error can change predicted noise levels by 2–3 dB at nearby receptors;
- Shadow flicker assessment — the flicker model outputs are directly dependent on turbine positions; an error of this magnitude changes the calculated flicker duration at H45 and neighbouring receptors;
- Visual impact assessment — photomontages are prepared from stated turbine locations; if AT02 is mislocated, the visual impact assessments are inaccurate;
- Aviation lighting — required positions for aviation warning lights are based on declared turbine coordinates.

The Objector cannot determine from the publicly available documents which set of coordinates is correct — the drawing or the EIAR table. Both documents form part of the statutory application. An Coimisiún Pleanála should require the applicant to clarify which coordinate is authoritative and to re-run all noise, shadow flicker, and visual assessments using the corrected position.

Sources: Drawing 6289-PL-100; EIAR Chapter 2, Table 2.3 — accessible via tirawleywindfarm.com

PART C

Significant Safety, Health and Assessment Defects

The following eleven grounds address fundamental deficiencies in the assessment of safety, health, and environmental impacts. Each ground identifies a specific failure in the applicant's EIAR that, in the Objector's submission, renders the assessment materially incomplete.

Ground 17 **St Patrick's College Lacken Cross MISCLASSIFIED as Domestic Dwelling**

The facility and its true nature: St Patrick's College, Lacken Cross, Killala, Co. Mayo (ETB roll 721305, lackencross.ie) is a post-primary co-educational secondary school under the Mayo, Sligo and Leitrim ETB, established 1966 at the meeting point of four parishes (Killala, Ballycastle, Lacken, Kilfian). It is not a domestic dwelling. The applicant has misclassified this institution in the noise and human health assessments, applying residential noise standards rather than the more protective standards appropriate to an educational establishment.

Special Educational Needs provision: The school operates a comprehensive SEN policy (February 2026) providing for students with autism spectrum condition (ASC), ADHD, sensory processing difficulties, and other additional needs including special classes and an SNA in every class. The school's published SEN Policy confirms: "Students with significant Special Educational Needs... need additional teaching support because they require highly individualised and differentiated learning programmes." SEN students are among the most vulnerable population in terms of sensitivity to environmental noise, shadow flicker, and artificial light at night.

Consequences of misclassification:

- A school is subject to WHO indoor noise guidance of 35 dB LAeq to protect learning and cognitive performance (WHO Environmental Noise Guidelines 2018) — far more protective than the 43 dB ETSU-R-97 night limit applied to dwellings;
- SEN students with ASC, ADHD, and sensory processing conditions are acutely sensitive to amplitude-modulated noise, shadow flicker, and ALAN — none of which have been assessed for this receptor;
- The school should have been assessed under Building Bulletin 93 (Acoustic Design of Schools, UK DfE) or equivalent Irish guidance for educational establishments, not as a residential receptor;
- The correct noise limit for an educational receptor during school hours is materially lower than the ETSU-R-97 residential limit — the applicant's predicted exceedances at residential receptors therefore do not capture the school's exposure.

Community identity: The applicant's description of Lacken as merely "between Killala and Ballina" misrepresents the community's distinct cultural identity as a meeting point of four historic parishes, with St Patrick's College at its heart as a community institution serving those four parishes since 1966.

Sources: St Patrick's College Lacken Cross website (lackencross.ie); Mayo, Sligo and Leitrim ETB; SEN Policy February 2026; WHO Environmental Noise Guidelines 2018; Building Bulletin 93 Acoustic Design of Schools (UK DfE, 2015 ed.); ETSU-R-97

Ground 18 **BESS Fire / Thermal Runaway at 512m — No COMAH Consequence Modelling**

The risk: Lithium-ion battery thermal runaway events at grid-scale BESS installations are not theoretical hazards. Significant incidents have occurred at operational BESS installations globally, including the 2021 Surprise, Arizona BESS fire (Fluence, 100 MW), the 2023 Liverpool NSW BESS fire, and the 2024 Moss Landing, California fire (Vistra Energy, 182.5 MW) which burned for three days and required precautionary evacuation of local residents. The Li-Ion battery chemistry

proposed for BESS installations of this type (NMC or LFP chemistry) is capable of self-sustaining thermal runaway once initiated.

Toxic gas emissions: Published peer-reviewed research by Sturk et al. (2017), published in Scientific Reports (Nature group), established that commercial lithium-ion batteries can emit 20 to 200 mg of hydrogen fluoride (HF) per Wh of nominal battery energy capacity during a fire. HF is an extremely hazardous substance — a short-term exposure to HF gas above approximately 3 ppm causes severe respiratory and skin damage. At a 150,000 kWh (150 MWh) BESS installation at full capacity, the potential HF emissions range from 3 to 30 kilograms of HF — sufficient to create a hazard zone considerably larger than 512 metres under adverse meteorological conditions.

No modelling submitted: The applicant has not provided:

- A fire and explosion risk assessment for the BESS facility;
- Consequence modelling for a worst-case thermal runaway event (plume dispersion, toxic gas transport);
- An assessment of the exposure of residential receptors, including H45 at 512 metres, to toxic gases under the prevailing meteorological conditions of north Co. Mayo;
- An emergency response plan or evacuation protocol for local residents.

Sources: Sturk et al. (2017) 'Toxic fluoride gas emissions from lithium-ion battery fires', Scientific Reports 7:10018; Moss Landing BESS fire, Vistra Energy (January 2025); NFPA 855 Standard for the Installation of Stationary Energy Storage Systems; HSA (Ireland) COMAH guidance

Ground 19 Cumulative Noise (Turbines + BESS) NEVER Calculated — ~41.4 dB at H45

The defect: The applicant's noise assessment models the operational noise from the 16 wind turbines and the operational noise from the BESS installation separately. No combined or cumulative noise level is calculated for any receptor, including H45. This is a fundamental failure of the noise assessment methodology.

The mathematics: Sound pressure levels are additive on the logarithmic scale. If the turbine noise at H45 at 8+ m/s is 40.2 dB LA90 and the BESS noise at H45 is 33.9 dB LAeq, the combined level is approximately:

$$L_{\text{combined}} = 10 \times \log_{10}(10^{(40.2/10)} + 10^{(33.9/10)}) \approx 41.4 \text{ dB}$$

This combined level of approximately 41.4 dB exceeds the WHO 2018 Night guideline of 40 dB by 1.4 dB. This calculation has never been performed or disclosed by the applicant. The omission is not trivial — it results in the cumulative noise impact at H45 being systematically underrepresented in the EIAR.

Sources: Applicant's EIAR Chapter 10 (Noise); WHO Environmental Noise Guidelines 2018; EPA (Ireland) Wind Turbine Noise Guidance; BS ISO 1996-2:2017 (Description, measurement and assessment of environmental noise)

Ground 20 Shadow Flicker Worst-Case 33h 48min EXCEEDS 30-Hour Guideline (12.7% Excess)

The data: The applicant's shadow flicker assessment (EIAR Chapter 7) reports the following results for Receptor H45:

Scenario	Hours per Year	Guideline	Status
Worst-case annual	33h 48min	30 hours	EXCEEDS by 3h 48min
Expected annual	4h 37min	30 hours	Within limit
Maximum single day	28 minutes	30 min/day	Within limit

Significance: The 30-hour annual threshold is the guidance value used by An Bord Pleanála and now An Coimisiún Pleanála in assessing shadow flicker impacts. The worst-case annual figure of 33 hours 48 minutes exceeds this threshold by 3 hours 48 minutes — a 12.7% excess. While the applicant argues that the "expected" figure is within limits, the worst-case scenario represents the real-world experience of the Objector in years with favourable sun and wind

combinations, which are not uncommon in the exposed coastal climate of north Co. Mayo.

ADHD context: For the Objector, shadow flicker is not merely an annoyance — it is a specific neurological stressor. Individuals with ADHD are known to have heightened sensitivity to repetitive visual stimuli and flickering light (Panagiotidi et al., 2018). The combination of worst-case shadow flicker exceeding the guideline threshold with an ADHD diagnosis creates a specific and unassessed health risk.

Sources: Applicant's EIAR Chapter 7 (Shadow Flicker); ACP Shadow Flicker Guidance; Panagiotidi et al. (2018) ADHD sensory sensitivity

Ground 21 ADHD Clinical Diagnosis — Vulnerability Completely Unassessed

Medical background: The Objector has a clinical diagnosis of Attention Deficit Hyperactivity Disorder (ADHD). ADHD is recognised under the Disability Act 2005 (Ireland) and the Equality Acts 2000–2015 as a disability. It is listed in the ICD-11 (6A05) and DSM-5-TR (F90). ADHD is a neurobiological condition affecting executive function, attentional regulation, sleep architecture, and sensory processing.

Relevance to this development: The published peer-reviewed literature consistently identifies heightened sensitivity to environmental stressors in individuals with ADHD:

- Sensory processing sensitivity: Multiple studies (Bijlenga et al., 2017, Journal of Attention Disorders; Panagiotidi et al., 2018, Journal of Attention Disorders) have identified abnormal sensory processing in ADHD, including hypersensitivity to auditory and visual stimuli.
- Sleep architecture disruption: Sleep disorders are extremely common in ADHD (75% of adults with ADHD report significant sleep disturbance — Cortese et al., 2013). Wind turbine noise — including amplitude modulation and infrasound — has been identified as a specific cause of sleep disturbance in sensitive individuals.
- Noise annoyance: The relationship between ADHD and elevated annoyance responses to environmental noise is well-documented. Noise annoyance in ADHD populations is not merely subjective discomfort — it has physiological correlates including elevated cortisol, elevated heart rate, and impaired cognitive performance (Stansfeld et al., 2005).
- Light sensitivity: The ADHD circadian rhythm system is dysregulated. Artificial light at night (ALAN) from the BESS facility (discussed in Ground 25) has a disproportionate impact on ADHD sleep quality.

The EIAR defect: The applicant's EIAR does not identify ADHD, or neurodevelopmental conditions more broadly, as a vulnerability factor requiring specific consideration in the noise, shadow flicker, visual, or human health assessments. The failure to address the Objector's diagnosed medical condition in the context of a development that will expose him to elevated noise, flicker, and ALAN is a material omission in the human health chapter of the EIAR.

Sources: Bijlenga et al. (2017) Journal of Attention Disorders; Panagiotidi et al. (2018) Journal of Attention Disorders; Cortese et al. (2013) Sleep Medicine Reviews; Stansfeld et al. (2005) Lancet; WHO Environmental Noise Guidelines 2018

Ground 22 Bat Survey Methodology Non-Compliant — Surveys Below 10°C BCT Mandatory Threshold

The standard: The Bat Conservation Trust (BCT) Good Practice Guidelines (4th edition, 2016) and associated Irish Bat Conservation guidance specify that bat activity surveys must not be conducted at air temperatures below 10°C. Bat foraging activity is largely absent below this temperature, and surveys conducted in sub-10°C conditions would not detect bats present at the site during favourable weather periods.

The reported breach: The EIAR bat survey records within the applicant's Biodiversity chapter indicate that surveys were conducted at air temperatures as low as 8°C. This is 2°C below the mandatory minimum temperature threshold. Any bat activity data collected during survey sessions at below 10°C is methodologically invalid and cannot be relied upon to support conclusions regarding bat species presence, absence, or activity levels at the site.

Species at risk: This defect is particularly significant in the context of the Nathusius' Pipistrelle (*Pipistrellus nathusii*) — a migratory bat species known to transit the north Mayo coast in autumn — and the Lesser Horseshoe Bat (*Rhinolophus hipposideros*), a Habitats Directive Annex II species with a known range that includes north Co. Mayo. These species are addressed further in Grounds 24 and 25.

Sources: Bat Conservation Trust Good Practice Guidelines 4th Ed. (2016); National Parks & Wildlife Service (NPWS) Bat Survey Guidance; Habitats Directive Annex II (Lesser Horseshoe Bat)

Ground 23 Marsh Fritillary (*Euphydryas aurinia*) — CONFIRMED PRESENT — No Adequate Survey

Species status: The Marsh Fritillary (*Euphydryas aurinia*) is Ireland's only legally protected insect. It is listed in Annex II of the EU Habitats Directive (92/43/EEC), transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011). It is also afforded protection under the Irish Wildlife Acts 1976 and 2000 (as amended) and the Berne Convention (Appendix II). Ireland holds a globally significant proportion of the European population. The species' conservation status in Ireland is assessed as "Inadequate and Declining" (NPWS, Article 17 Habitats Directive reporting, 2019).

Confirmed presence at the site: The Objector photographed two individual Marsh Fritillary butterflies within the Tirawley development area at GPS coordinates 54.246477°N, 9.345160°W (decimal degrees) on 24 June 2026. The photographs, provided with this submission, show the characteristic orange-and-black chequered wing pattern of *Euphydryas aurinia*. One individual is shown feeding on a yellow composite flower in rush/grass habitat typical of Marsh Fritillary foraging habitat; a second individual is shown resting on broad-leaved vegetation in heath/rush habitat consistent with the species' known habitat associations.

Habitat context: The Marsh Fritillary is entirely dependent on the presence of Devil's-bit Scabious (*Succisa pratensis*) as its larval food plant. The habitat shown in the Objector's photographs — wet rush/grass/heath mosaic — is precisely the habitat type associated with Marsh Fritillary colonies in County Mayo and western Ireland generally.

Planning precedents: An Bord Pleanála has refused planning permission for wind farm developments on grounds including the presence and potential impact on the Marsh Fritillary. In May 2024, An Bord Pleanála refused permission for the Slieveacurry wind farm (seven turbines) in Co. Clare citing, inter alia, concerns about the Marsh Fritillary and its habitats. In December 2025, planning was refused for a further west Clare wind farm for the same reason. These refusals confirm that the Marsh Fritillary is treated by An Coimisiún Pleanála as a genuine constraint on wind farm development in Ireland.

The EIAR defect: The applicant's Biodiversity chapter does not contain a dedicated Marsh Fritillary survey of adequate standard. Given the habitat type present at the site and the confirmed records from the photographs submitted with this objection, the EIAR cannot adequately screen out the possibility of a significant effect on the Marsh Fritillary population in this area. A full dedicated survey, covering the complete development footprint including BESS, access roads, and cable routes, is required before any decision can be made.

Coordinate reference for photographs: 54.246477°N, 9.345160°W. Photographs submitted with this objection (image0-21.jpg and image3.jpg) depict two individual Marsh Fritillary butterflies (*Euphydryas aurinia*) recorded at or near this location.

Sources: Habitats Directive Annex II (*Euphydryas aurinia*, Natura 2000 code 1065); S.I. 477/2011; Biodiversity Ireland All-Ireland Marsh Fritillary Database; NPWS Species Action Plan for Marsh Fritillary; RTÉ (2024-05-23) 'An Bord Pleanála refuses permission for three wind farms' (Clare FM, 2025-12-08); Butterfly Conservation Ireland; Pollinatorseeds.ie (2026-03-18)

Ground 24 Mitigation Enforceability Failure — Pattern of Non-Compliance Already Evident

Pre-permission pattern of inaccuracy: The application already demonstrates, before a single condition has been imposed, a pattern of inaccuracy and non-compliance that fundamentally undermines any confidence in the applicant's ability or willingness to adhere to conditions or mitigation commitments:

- (a) CEMP names wrong authority — Limerick City and County Council, not Mayo County Council (Ground 27);
- (b) AT02 coordinates differ by 257 metres between Drawing 6289-PL-100 and EIAR Chapter 2, Table 2.3 (Ground 16);
- (c) Folio MY85163F included within the blue boundary as 'land under control of applicant' without any agreement in place (Ground 13);
- (d) Bat surveys conducted below the mandatory BCT 10°C temperature threshold (Ground 22);
- (e) St Patrick's College Lacken Cross misclassified as a domestic dwelling throughout the noise and human health assessments (Ground 17).

Post-permission enforcement gap: Mayo County Council noise enforcement resources are limited; the EPA operates reactively; private nuisance action is costly and time-consuming. The landmark Irish High Court case *Webster & Anor v Meenacloghspar (Wind) Limited* [2024] IEHC established that: (1) planning permission is NOT a complete defence to noise nuisance; (2) the character and quality of noise (amplitude modulation, thump, frequency, timing at night) matters, not just its level; (3) financial hardship to the developer does not override residents' rights. As confirmed by Pinsent Masons analysis (May 2026): "planning permission, even with specific noise conditions, does not automatically protect a developer."

The Objector's position: The Objector has zero confidence in this applicant's ability, adeptness, or willingness to adhere to conditions or mitigation commitments, given the errors already embedded in this application. The pre-permission pattern of inaccuracy is not consistent with the standard of care expected of a developer proposing a major Strategic Infrastructure Development adjacent to residential receptors.

Sources: *Webster & Anor v Meenacloghspar (Wind) Limited* [2024] IEHC (Irish High Court); Pinsent Masons planning analysis (May 2026); Planning and Development Act 2000 s. 160 enforcement; Mayo County Council Environmental Enforcement

Ground 25

BESS ALAN (Artificial Light at Night) — Undisclosed, Unassessed, Unmitigated

The issue: The proposed BESS installation (20 container units, sited 512 metres due north of H45) will require operational lighting at night for security, safety, and access purposes. Artificial Light at Night (ALAN) from an industrial installation of this scale at this proximity represents a material amenity and ecological impact that has not been assessed in the applicant's EIAR.

Human health: ALAN at night suppresses melatonin production and disrupts circadian rhythm. The evidence for human health impacts of ALAN is substantial (Stevens et al., 2007; Chepesiuk, 2009; Blask, 2009). For an individual with ADHD — whose circadian rhythm regulation is already dysregulated — the introduction of persistent ALAN from an industrial facility 512 metres to the north represents a specific and unmitigated health risk.

Ecological impacts: Published research (Gaston et al., 2013, 2015; Bennie et al., 2016) confirms that ALAN causes a range of ecological impacts including disruption to bat foraging behaviour, moth and insect attraction and mortality, and disruption to breeding bird behaviour. The Marsh Fritillary butterfly (Ground 23), bats (Grounds 31–32), and breeding waders (identified by Mayo County Council as a concern) are all sensitive to ALAN.

The EIAR defect: The EIAR does not contain a lighting plan for the BESS facility. It does not specify luminaire types, mounting heights, light distribution, or lux levels at the site boundary. It does not assess the impact of BESS security lighting on Receptor H45 or on the ecological receptors in the surrounding area. This is a material omission.

Sources: Gaston et al. (2013) 'The ecological impacts of nighttime light pollution', *Biological Reviews*; Stevens et al. (2007) *American Journal of Epidemiology*; Blask (2009) *Journal of Pineal Research*; Institute of Lighting Professionals (ILP) *Guidance Notes for the Reduction of Obtrusive Light* (2021)

Ground 26

Construction Noise Contradicts Own Ambient Data — BESS Phases Not Assessed

The contradiction: The applicant's EIAR noise chapter presents background noise measurements taken at multiple receptor locations across the site. These measurements establish the baseline ambient noise environment, which the ETSU-R-97 methodology uses to set appropriate noise limits relative to background. However, the construction noise assessment section of the EIAR predicts construction noise levels at H45 and neighbouring receptors that, on the Objector's analysis, would frequently exceed the measured ambient background by margins substantially greater than the WHO-recommended construction noise guidance values.

Specific concerns regarding BESS construction: The BESS site construction involves:

- Ground preparation and levelling for 20 container units;
- Foundation pour (concrete mixing, delivery, and placing);
- Container delivery by abnormal load vehicle convoy;
- Electrical installation and commissioning.

The noise from these activities — particularly concrete pour and heavy plant during foundation construction — during night-time hours or at weekends is not assessed separately in the EIAR. No construction noise monitoring plan is specified for H45.

Sources: WHO Night Noise Guidelines for Europe (2009); BS 5228-1:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites; EPA (Ireland) Guidance on Construction Noise

Ground 27 CEMP Names Limerick City and County Council — Wrong Authority Entirely

The error: The applicant's Construction Environmental Management Plan (CEMP), as submitted with the planning application, contains a reference to "Limerick City and County Council" as the relevant planning authority for traffic and construction management coordination. The proposed development is located in County Mayo. The relevant planning authority for County Mayo is Mayo County Council. Limerick City and County Council has no jurisdiction whatsoever in respect of this development.

Significance: This error indicates that the CEMP is a template document that has been inadequately adapted to the specific development. It raises a reasonable question as to what other standard clauses, obligations, or procedures in the CEMP have been similarly transposed from an unrelated project without adequate site-specific review. An Coimisiún Pleanála is invited to scrutinise the CEMP for further instances of inadequate project-specific adaptation.

Source: Applicant's Construction Environmental Management Plan (CEMP) — accessible via tirawleywindfarm.com

PART D

Material Omissions and Regulatory Non-Compliance

The following grounds represent material failures in the environmental and regulatory assessment. Each identifies a specific omission, error, or non-compliance that An Coimisiún Pleanála should require to be addressed before a decision is made.

Ground 28 **Constant Energy — Undisclosed Conflicts and Associated Entities**

Direct contact with the Objector — critical wording: A representative of Constant Energy Limited contacted the Objector on multiple occasions in connection with this development and the Objector's landholding at Folio MY85163F. No agreement is currently in place between the Objector and Constant Energy Limited, its directors, agents, or any associated entity in relation to access, wayleave, consent, or any other interest in the application lands. The Objector has not entered into any waiver, lease, licence, or easement in respect of Folio MY85163F. The inclusion of MY85163F within the blue boundary of the application is a material misrepresentation in the absence of any such agreement.

Amber Mint Limited (CRO 676661) — undisclosed associated entity: A second Irish company — Amber Mint Limited — shares an identical director, identical registered address (6th Floor, Riverpoint, Limerick), and an identical corporate profile to Constant Energy Limited. Amber Mint was incorporated in August 2020, during the active development phase of the Tirawley project. Both companies have a single unnamed shareholder. Amber Mint may be the beneficial owner of Constant Energy, creating two layers of beneficial ownership opacity. This entity does not appear anywhere in the planning application, the EIAR, or any accompanying document. An Coimisiún Pleanála is invited to require full disclosure of the ownership structure of both entities before a decision is made.

Sources: Companies Registration Office (Constant Energy Limited; Amber Mint Limited CRO 676661); CJEU Joined Cases C-37/20 and C-601/20 (Sovim) — beneficial ownership transparency

Ground 29 **Jennings O'Donovan — Applicant/Consultant Independence Not Declared**

The concern: Jennings O'Donovan & Partners is the engineering consultancy that prepared the planning drawings and engineering documents forming part of this application. The independence and objectivity of the professional consultant relationship between Constant Energy Limited and Jennings O'Donovan & Partners has not been declared or demonstrated in the application documents or the EIAR.

The planning requirement: An Coimisiún Pleanála is entitled to satisfy itself that the applicant's professional consultants are independent of the applicant and have no undisclosed financial, directorial, or personal interest in the outcome of the application. No such declaration of independence has been provided. The Objector requests that An Coimisiún Pleanála require Jennings O'Donovan & Partners to provide a formal declaration confirming no conflict of interest exists between the firm, its directors, and Constant Energy Limited or any associated entity.

Sources: CRO — Constant Energy Limited (director and shareholder filings); Jennings O'Donovan & Partners — company records; Planning and Development Act 2000 (accurate and complete information requirements)

Ground 30 **Habitat Loss — Hedgerows, Native Species, Irreversible Impact**

The Objector's ecological standing: The Objector holds a B.Sc. (Hons.) in Animal Ecology from the University of Aberdeen. He has planted over twenty species of native Irish trees and shrubs on one acre of land in the vicinity of his property at Folio MY85163F, including oak, birch, rowan, hazel, holly, blackthorn, hawthorn, wild cherry, alder, willow, crab apple, elder, guelder rose, and spindle. This active conservation work is directly relevant to the ecological sensitivity of this landscape. The Objector brings specialist ecological knowledge to bear on the following assessment.

Hedgerow and habitat loss: The proposed turbine locations, access road alignments, cable routes, and BESS compound will result in the removal and degradation of hedgerow and semi-natural habitats. Hedgerows in County Mayo provide: (a) wildlife corridors for birds, mammals, and invertebrates; (b) nesting habitat for Schedule 1 and Schedule 2 bird species; (c) foraging and commuting routes for bats including the Lesser Horseshoe Bat (Annex II) and Nathusius' Pipistrelle; (d) habitat components for the Marsh Fritillary (Annex II), which uses hedgerow edges as shelter and movement corridors; and (e) carbon sequestration and soil stability functions.

Survey inadequacy: The applicant's biodiversity assessment does not appear to include a full NPWS-standard hedgerow survey of the development footprint and corridor. No habitat connectivity assessment demonstrating the impacts on wildlife movement through hedgerow networks has been submitted. The cumulative loss of hedgerow and semi-natural habitat from the BESS compound, access roads, and cable routes — which is additive to the loss from the turbine foundations — has not been quantified.

Irreversibility: Habitat loss through hedgerow removal and ground-working is largely irreversible on any meaningful planning timescale. Mitigation commitments involving replacement planting cannot adequately compensate for the loss of mature hedgerows and semi-natural habitat of significant ecological and amenity value. The proposed mitigation measures for biodiversity are generic and do not specify monitoring standards, timeframes, or success criteria.

Sources: Habitats Directive Annex II; Wildlife Acts 1976/2000 (as amended); Countryside Survey Ireland; EU Biodiversity Strategy 2030; Applicant's EIAR Biodiversity Chapter

Ground 31 Lesser Horseshoe Bat (Annex II) — ALAN Impact and Survey Defects

Species profile: The Lesser Horseshoe Bat (*Rhinolophus hipposideros*) is listed in Annex II and Annex IV of the Habitats Directive, making it a European Protected Species. Its Irish stronghold is the western seaboard, with significant populations in Connacht, including Co. Mayo. The Lesser Horseshoe Bat is particularly vulnerable to wind turbine collision due to its low flight altitude and echolocation characteristics. Its sensitivity to light is extreme — ALAN of even low intensity can suppress foraging activity and disrupt roost departure timing.

Survey and assessment defects: The temperature-non-compliant surveys (Ground 22) invalidate key baseline data. No dedicated Lesser Horseshoe Bat roost survey appears to have been conducted at H45 or in the immediate vicinity. The BESS ALAN impact on Lesser Horseshoe Bat foraging (Ground 25) has not been assessed.

Sources: Habitats Directive Annexes II and IV; NPWS Survey and Assessment of Impacts on European Protected Species — Bats; Bat Conservation Trust, Lesser Horseshoe Bat species account

Ground 32 Nathusius' Pipistrelle — Migratory Bat — Inadequate Survey

Species profile: The Nathusius' Pipistrelle (*Pipistrellus nathusii*) is a migratory bat species that undertakes long-distance seasonal migration along Atlantic coastal routes. The north Mayo coastline — which includes the Tirawley development site — is known to be used by Nathusius' Pipistrelles on autumn migration between the British Isles and continental Europe. The species is listed on the Agreement on the Conservation of Bats in Europe (EUROBATS).

Survey defect: The bat survey methodology in the EIAR was conducted at temperatures that included sessions below the 10°C threshold (see Ground 22). Migratory bats transit during autumn when temperatures may be low. Surveys conducted below 10°C would miss active migratory transit events. No specific migratory bat assessment is presented. The turbines are 135 metres to tip height — at this height, rotor sweep interacts with migratory bat flight paths at altitudes not sampled by ground-level static detectors.

Sources: Russ et al. (2001) Bat Conservation Trust; EUROBATS Agreement (1991); BCT Good Practice Guidelines 4th Ed.; Lintott et al. (2016) Animal Conservation

Ground 33 BESS Groundwater Contamination — Not Assessed Under WFD

In addition to the bore well risk addressed in Ground 15, the BESS installation itself presents a specific groundwater contamination risk through electrolyte leakage. Lithium-ion battery electrolytes typically consist of lithium hexafluorophosphate (LiPF₆) dissolved in organic carbonate solvents (dimethyl carbonate, ethyl methyl carbonate, ethylene carbonate). These compounds are acutely toxic to aquatic organisms and groundwater biota at very low concentrations. No assessment of the groundwater contamination risk from the BESS installation has been provided in the EIAR. This is required under the WFD non-deterioration obligation and the Groundwater Directive (2006/118/EC).

Sources: WFD 2000/60/EC; Groundwater Directive 2006/118/EC; Huang et al. (2020) Environmental Science & Technology (LiPF₆ toxicity)

Ground 34 No BESS Emergency Response / Evacuation Plan Submitted

The application does not contain a site-specific emergency response plan for the BESS installation addressing: thermal runaway event management; fire brigade access routes; evacuation protocols for local residents (including H45 at 512 metres); coordination with Mayo County Fire Service; or communication protocols with the Health Service Executive. This is required under COMAH Regulations (S.I. 209/2015) where applicable, and in any event represents best practice for a major BESS installation adjacent to residential properties.

Sources: S.I. 209/2015 (COMAH); NFPA 855 §4.9 (Emergency Response Plans); IEC 62933-5-2:2020 (Safety requirements for BESS)

Ground 35 ISIF / NTMA Structural State Conflict of Interest

The Ireland Strategic Investment Fund (ISIF), managed by the National Treasury Management Agency (NTMA), has invested in excess of EUR 636 million in wind energy and BESS infrastructure in Ireland since 2021, including investments in NTR Wind 1 (EUR 35m), Copenhagen Infrastructure Partners (EUR 200m), and the TirNua BESS/renewables fund (EUR 140m). An Coimisiún Pleanála is a State body funded by the Exchequer. A Senior Investment Director joined ISIF in May 2026 directly from NTR plc, a wind and BESS developer active in the Irish market. This structural State financial interest in the wind and BESS sector, coinciding with An Coimisiún Pleanála's role as decision-maker on this application, is a matter of legitimate public interest. It is disclosed here for the record.

Sources: NTMA/ISIF Annual Reports 2021–2024; ISIF investment disclosures; NTR plc corporate records; TirNua fund documentation

Ground 36 RSK / Ares Management — Engineering Consultant to BESS Investor Chain

Jennings O'Donovan & Partners, the engineering consultants who prepared key planning drawings for this application, are owned by RSK Group Ltd. RSK Group received approximately £1.4 billion in investment from Ares Management Corporation (NYSE: ARES). Ares Management Corporation is one of the world's largest investors in battery energy storage systems, with over 60 BESS investments globally and in excess of USD 2 billion deployed in climate infrastructure including BESS. The financial chain — from the BESS investment giant (Ares) through the engineering parent (RSK) to the planning consultants (Jennings O'Donovan) for this BESS planning application — is a structural connection that has not been disclosed in the application documents and which raises legitimate questions about the independence of the professional advice provided.

Sources: RSK Group press releases; Ares Management Corporation SEC filings; Ares climate infrastructure portfolio disclosures; Jennings O'Donovan company records (CRO)

Ground 37 Survey Data Validity — 2022 Baseline Invalid for Revised 2024/25 Layout

The ecological, ornithological, and bat surveys relied upon in the EIAR appear to have been conducted in 2022 or earlier, based on the survey dates recorded in the methodology sections. The wind farm layout was subsequently revised, with turbine positions, access routes, and cable alignments amended in 2024/25. Survey data gathered for a previous layout cannot properly represent the environmental baseline for an amended layout where survey footprints may no longer correspond to the current development footprint. The applicant should be required to confirm the survey dates for all key ecological assessments and to demonstrate that the baseline data is current and applicable to the final consented layout.

Ground 38 AT03 — No Nearest Receptor Noise Data Presented

The EIAR noise assessment does not identify or assess the impact of AT03 (at 1,080m WSW of H45) on the nearest receptor to AT03. The noise assessment methodology requires that noise levels be calculated at the nearest noise-sensitive receptor to each turbine. The failure to identify the nearest receptor to AT03, and the absence of a noise assessment for that receptor, is a material gap in the noise assessment.

Source: EPA (Ireland) Wind Turbine Noise Guidance; ETSU-R-97; Applicant's EIAR Chapter 10

Ground 39 Migratory Birds — North Mayo Coastal Flyway Not Assessed

The north Mayo coastline, including the area around Lackan Bay, Killala Bay, and the Tirawley site, is a significant autumn and spring migratory corridor for a range of protected bird species including Golden Plover (*Pluvialis apricaria*), Bar-tailed Godwit (*Limosa lapponica*), Whooper Swan (*Cygnus cygnus*), and Barnacle Goose (*Branta leucopsis*), all of which are Annex I species under the Birds Directive. An Bord Pleanála has previously cited migratory bird impacts on the north Mayo coastline as a material consideration in planning decisions. The EIAR bird assessment does not adequately address cumulative flyway impacts or the specific collision risk to migratory species at 135-metre tip-height turbines on a coastal flyway route.

Sources: Birds Directive 2009/147/EC; Killala Bay SPA conservation objectives; BirdWatch Ireland; RTÉ (2024-05-23) An Bord Pleanála refusals citing avifauna impacts

Ground 40 BESS Lifecycle — EU Batteries Regulation 2023/1542 — Not Addressed

EU Regulation 2023/1542 (the Batteries Regulation, fully applicable from February 2027) introduces requirements for battery lifecycle assessment, carbon footprint declaration, recycling efficiency, and extended producer responsibility. The applicant has not addressed the BESS battery replacement schedule, end-of-life management, or compliance pathway under the incoming Batteries Regulation. At a 25-year project lifetime, the BESS batteries are likely to require multiple replacement cycles. The waste management and environmental impact of battery replacement, storage, and disposal at a site in north Co. Mayo — a remote rural location — is unaddressed.

Sources: EU Regulation 2023/1542 on Batteries and Waste Batteries; Environmental Protection Agency (Ireland) Waste Management Regulations

Ground 41 No BESS Photomontages / Visual Impact of Compound Unassessed

The visual impact assessment submitted with the application focuses on the wind turbines. No photomontages or visual representations of the 20 BESS container units, substation, or associated compound infrastructure have been provided for the viewpoints in the vicinity of H45. The BESS compound represents a significant industrial installation in an agricultural/coastal landscape. Its visual impact from H45 and from public roads in the vicinity has not been adequately assessed.

Source: Applicant's EIAR Chapter (Landscape and Visual Impact); An Coimisiún Pleanála Visual Impact Assessment Guidelines

Ground 42 Mayo County Council on Record Opposing — Post-Completion Enforcement Gap

Mayo County Council's position: Mayo County Council, as the relevant local planning authority, has been noted in publicly accessible planning records as having raised objections and concerns in respect of comparable wind energy development in the north Mayo area. The views of the local planning authority, and any formal submission made by Mayo County Council in respect of this application, are a material consideration for An Coimisiún Pleanála. The Objector invites the Board to give full weight to any Mayo County Council submission opposing or substantially qualifying this application.

Post-completion enforcement gap: There is no adequate mechanism for the Objector or other affected residents to complain meaningfully to Mayo County Council about noise pollution from wind turbines or BESS following development

completion. Mayo County Council's Noise Action Plan 2024–2028 acknowledges limited enforcement resources. An Coimisiún Pleanála has no ongoing enforcement role once permission is granted. This structural gap means that if the development proceeds and residents experience noise levels in excess of planning conditions, there is no efficient or realistic pathway to remedy this. This is a flaw in the planning framework itself that An Coimisiún Pleanála should weigh heavily in the balance when assessing whether conditions can adequately protect sensitive receptors like H45.

Ground 43 Lacken Community Identity Misrepresented in Application Documents

The misrepresentation: The Objector's property and the development site are situated in the Parish of Lacken, Co. Mayo — a distinct community at the meeting point of four parishes: Killala, Ballycastle, Lacken, and Kilfian. The application documents refer to this area as being located "between Killala and Ballina," or use similar geographic approximations that deprive Lacken of its identity as a distinct community with its own cultural, social, and historical character.

Significance: The identity and character of the host community is a material consideration in the assessment of amenity and social impacts of a major wind energy development. An Coimisiún Pleanála's own guidelines emphasise the importance of accurate characterisation of the receiving community. The failure to identify Lacken as a distinct community, with a local secondary school (St Patrick's College Lacken Cross, Ground 17), a distinct cultural identity, and a specific geographic context at the convergence of four parishes, contributes to an inaccurate assessment of the social and community impact of this development.

Ground 44 Bore Well — No Vibration / Hydrogeological Assessment at H45

The EIAR does not contain a vibration assessment addressing the Objector's bore well. Bore wells in glacial till/limestone geological formations are sensitive to ground vibration. Turbine foundation construction — particularly blasting, piling, and compaction — can disturb well casing integrity and alter aquifer flow pathways. The British Standards Institution (BS 7385-2:1993) and EPA guidance on vibration near water wells specify that vibration assessments should be carried out at sensitive receptors including private water supplies. No such assessment has been provided for H45.

Sources: BS 7385-2:1993; EPA (Ireland) Groundwater and Contaminated Land; Irish Hydrogeological Reports published by GSI

Ground 45 Microplastics / Blade Erosion — BPA Pathway to Bore Well

The science of blade erosion: Wind turbine blades are subject to Leading Edge Erosion (LEE), a progressive degradation of the blade's protective coating and substrate caused by rain droplet impact, hail, sand, and insect strikes. Published peer-reviewed research (Mishnaevsky et al., 2024, *Energies*, DTU/Technical University of Denmark; Wind Energy Science journal, 2025) establishes that onshore wind turbines release between 30 and 540 grams of microplastics per blade per year, giving a range of approximately 90 grams to 1.62 kg per turbine per year. The material eroded consists primarily of polyurethane leading-edge protection (LEP) coating and, where LEP is worn through, epoxy/glass fibre composite material.

Meteorological context — north Co. Mayo: The Tirawley site experiences an exceptionally high rainfall and wind environment that is directly relevant to erosion rates. The Met Éireann Belmullet synoptic station (the nearest long-term station) records:

- Mean annual rainfall: approximately 1,142 mm (1961–1990 climate normal, Belmullet — EPA Environmental Data), with the 1991–2020 average for Ireland up 6.7% on the 1961–1990 period, implying current annual rainfall at Belmullet of approximately 1,220 mm;
- Days with mean 10-minute wind speed ≥ 15 m/s: typically 30–50 days per year at Belmullet (Met Éireann monthly data, 2022–2025);
- Prevailing wind direction: south-westerly (50% of the time, per Bellacorick Wind Farm historic data); mean diurnal range in wind speed at Belmullet: 11.5 m/s in January, 8.4 m/s in July;

- Storm force gusts: Belmullet has recorded sustained winds of 100 km/h (Storm Force 10) during Storm Ashley (October 2024) and gust speeds of 133 km/h — among the highest in Ireland — which accelerate blade erosion exponentially.

Dispersal pathway to bore well: The prevailing south-westerly and north-westerly winds will disperse microplastic particles eroded from turbine blades predominantly in the direction of H45 and the bore well catchment. The bore well is sunk to 40 metres depth and draws from the local quaternary drift/limestone aquifer. Microplastic particles settling on the land surface above the bore well catchment can be transported into the aquifer by percolating rainwater.

Bisphenol A (BPA) contamination risk: Epoxy resins used in turbine blade composite structures contain Bisphenol A (BPA), an endocrine-disrupting chemical of significant regulatory concern. BPA is a listed substance of very high concern (SVHC) under EU REACH Regulation. Its leaching behaviour in soil and water systems is well-documented. The risk of BPA entering the Objector's bore well water supply from turbine blade erosion debris is a material consideration that the EIAR has completely failed to address.

Sources: Mishnaevsky et al. (2024) 'Microplastics Emission from Eroding Wind Turbine Blades', *Energies* 17(24):6260 (DTU); Wind Energy Science (2025) Copernicus Publications; Solberg et al. (2021) The Turbine Group Norway; Windwiki.nl (2024) 'Risks of BPA in relation to wind turbines'; REACH Regulation EC 1907/2006 (BPA as SVHC); Met Éireann Belmullet climate data

Ground 46

Infrasound, Low-Frequency Noise and Amplitude Modulation — Incomplete Assessment

Introduction: Wind turbines generate noise across the full frequency spectrum, from infrasound (below 20 Hz) through low-frequency noise (20–200 Hz) to audible broadband noise. The ETSU-R-97 noise assessment framework, used by the applicant, assesses only A-weighted noise levels (LA90), a metric that heavily attenuates low frequencies. This methodological limitation means that significant components of wind turbine noise are systematically underweighted in the standard assessment.

Published scientific evidence — infrasound and low-frequency noise (ILFN):

- Kelley et al. (1985, NASA/DOE) identified that infrasonic pressure pulsations from a downwind horizontal-axis wind turbine caused resonant vibration in residential buildings at distances of up to 3 km, resulting in rattling, sleep disturbance, and annoyance — at frequencies between 1 and 8 Hz that are completely invisible to A-weighted noise metrics;
- Salt & Hullar (2010, Hearing Research) proposed that low-frequency sound from wind turbines activates the outer hair cells of the cochlea and stimulates the vestibular system at levels inaudible to conscious perception, potentially triggering the balance disturbances, nausea, and dizziness reported by residents near wind farms;
- The WHO Environmental Noise Guidelines for the European Region (2018) note that for wind turbine noise, 'the evidence was either unavailable or rated low/very low quality' in respect of health effects beyond annoyance, but explicitly flag the gap and recommend precautionary action above 40 dB Lnight;
- Studies in Canada (Nissenbaum et al., 2010), Sweden (Pedersen & Waye, 2004, 2007), and Australia (Chapman et al., 2013) have consistently found statistically significant associations between proximity to wind farms and self-reported sleep disturbance, headache, dizziness, tinnitus, and impaired mental health at distances comparable to H45 (796–1,097 metres);
- A peer-reviewed review of amplitude-modulated (AM) wind turbine noise (Lotinga et al., 2017, ICBEN, WSP/UK Government) found that AM is associated with elevated community annoyance beyond that predicted by standard LA90 metrics and recommended specific AM assessment and control conditions in planning permissions.

Amplitude modulation (AM): The characteristic "swishing" or "thumping" sound of wind turbine operation, known as amplitude modulation, arises from the periodic passage of each blade through the air stream. AM noise can be particularly disturbing at night when background noise levels are low. ETSU-R-97 LA90 metrics do not capture AM in any meaningful way. The applicant's noise assessment does not include an AM assessment and does not propose any AM monitoring or operational conditions.

ADHD context: Individuals with ADHD are known to have dysregulated auditory processing and elevated noise sensitivity. The sleep disruption associated with wind turbine ILFN and AM noise is particularly damaging for ADHD patients, for whom sleep quality is a critical regulator of daytime functioning, executive function, and mood regulation. The failure to assess ILFN and AM impacts on a diagnosed ADHD receptor at H45 is a material omission in the human health chapter of the EIAR.

Sources: Kelley et al. (1985) NASA/DOE Report; Salt & Hullar (2010) Hearing Research 295:12–24; WHO Environmental Noise Guidelines 2018; Pedersen & Waye (2004) Journal of Sound and Vibration; Nissenbaum et al. (2010/2012) Noise & Health; Loting et al. (2017) ICBEN Proceedings (WSP/UK Government); Canadian Family Physician (2013) 'Adverse health effects of industrial wind turbines' PMC3653647

Ground 47 CPH2 / Hydrogen Hub — Undisclosed Commercial Dependency Chain

Constant Energy Limited has entered into a Memorandum of Understanding with CPH2 plc (LSE AIM-listed), a green hydrogen company proposing the Killala Energy Hub, which is dependent on curtailed wind energy from the Tirawley Wind Farm. Planning consent for Tirawley is a gateway condition for CPH2's commercial development programme and, by extension, for the interests of CPH2 shareholders. This dependency chain — between the planning application and a publicly listed company's commercial interests — has not been disclosed in the application documents submitted to An Coimisiún Pleanála. Its disclosure is relevant to a full and transparent assessment of the interests behind this application.

Sources: CPH2 plc press releases; Killala Energy Hub promotional materials; CPH2 plc AIM market announcements

Ground 48 Construction Traffic + EMF — No H45 Route-Specific Assessment

Construction traffic: The EIAR identifies construction traffic routes (the "blue route" and associated approach roads). The H45 receptor is adjacent to access routes that will carry abnormal loads and heavy goods vehicles associated with turbine component delivery and BESS container delivery. The EIAR construction traffic chapter does not contain a site-specific assessment of the impact of construction traffic on H45 in terms of noise, vibration, dust, or damage to the local road network immediately adjacent to the Objector's property.

Electromagnetic fields (EMF) and interference (EMI): The application does not contain an assessment of electromagnetic fields (EMF) or electromagnetic interference (EMI) from the wind farm infrastructure (turbines, cables, substation, BESS inverters). The underground cable infrastructure and 220 kV substation generate EMF that can affect medical implants, sensitive agricultural equipment, and telecommunications. No assessment has been provided for the Objector's property at H45 or for other sensitive receptors in the vicinity.

PART E

Complete Ranked Summary of All 48 Objection Grounds

The following table presents all 48 grounds in ranked order, with their tier classification, a brief summary of the core argument, and the specific law or regulation breached. An Coimisiún Pleanála is respectfully invited to address each ground in sequence in the Board's decision.

Ground	Severity	Summary of Ground	Law / Regulation Breached
G-1	CRITICAL	Appropriate Assessment / Habitats Directive — cannot be screened out	Habitats Dir. 92/43/EEC Art. 6(3); C-127/02 Waddenzee
G-2	CRITICAL	BESS never scoped in PCX16.323906 — procedural nullity of BESS component	EIA Dir. 2011/92/EU; Planning and Development Acts 2000–2024
G-3	CRITICAL	BESS = separate development requiring independent EIAR	EIA Dir. 2011/92/EU Art. 2; PD Regs 2001 Sch. 5

Ground	Severity	Summary of Ground	Law / Regulation Breached
G-4	CRITICAL	COMAH / Seveso III — 150 MW BESS major accident hazard unassessed	Seveso III Dir. 2012/18/EU; S.I. 209/2015 (COMAH)
G-5	CRITICAL	No Natura Impact Statement for Lackan Bay SAC / Killala Bay SPA	Habitats Dir. Art. 6(3); S.I. 477/2011
G-6	CRITICAL	Blue boundary misrepresentation — MY85163F shown as applicant land, no agreement	Planning & Development Regs 2001 (accuracy of application)
G-7	CRITICAL	WHO 2018 Night 40 dB EXCEEDED at H45 (40.2 dB; ~41.4 dB cumulative with BESS)	WHO Env. Noise Guidelines 2018; EIA Dir.
G-8	CRITICAL	Private bore well (40m) — WFD / Groundwater Directive not assessed	WFD 2000/60/EC; Groundwater Dir. 2006/118/EC
G-9	CRITICAL	AT02 coordinate discrepancy — 257 metre positional error between documents	EIA Dir. (accuracy of EIAR); ETSU-R-97 (noise modelling)
G-10	SIGNIFICANT	St Patrick's College Lacken Cross misclassified as domestic dwelling	WHO Env. Noise Guidelines (schools 35 dB LAeq); BB93; EIA Dir.
G-11	SIGNIFICANT	BESS fire/thermal runaway — no HF/toxic gas consequence modelling at 512m	COMAH S.I. 209/2015; NFPA 855; Seveso III
G-12	SIGNIFICANT	Cumulative noise (turbines + BESS) NEVER calculated — ~41.4 dB at H45	WHO 2018 Night; EIA Dir. cumulative assessment obligation
G-13	SIGNIFICANT	Shadow flicker worst-case 33h 48min — exceeds 30-hour guideline (12.7% excess)	ACP Shadow Flicker Guidance; EIA Dir.
G-14	SIGNIFICANT	ADHD clinical diagnosis — vulnerability completely unassessed in EIAR	EIA Dir. Art. 5 (human population); Disability Act 2005; WHO 2018
G-15	SIGNIFICANT	Bat surveys below 10°C mandatory BCT threshold — invalidating baseline data	Habitats Dir. Annex II / IV; S.I. 477/2011; BCT Guidelines
G-16	SIGNIFICANT	Marsh Fritillary — Ireland's only protected insect CONFIRMED at site (photos)	Habitats Dir. Annex II (code 1065); S.I. 477/2011; Wildlife Acts
G-17	SIGNIFICANT	Mitigation enforceability failure — pattern of pre-permission non-compliance	Webster v Meenacloghspar [2024] IEHC; P&D; Act 2000 s.160
G-18	SIGNIFICANT	BESS ALAN — undisclosed, unassessed, unmitigated night lighting at 512m	EIA Dir. (human health / biodiversity); Habitats Dir. Art. 6(3)
G-19	SIGNIFICANT	Construction noise contradicts own ambient data — BESS phases not assessed	WHO Night Noise Guidelines 2009; BS 5228-1:2009; EIA Dir.
G-20	SIGNIFICANT	CEMP names Limerick City and County Council — wrong authority entirely	Planning & Development Acts (CEMP requirement); EIA Dir.
G-21	MATERIAL	Undisclosed conflicts — Constant Energy representatives / Amber Mint Ltd (CRO 676661)	P&D; Act 2000 (accurate information); CJEU C-37/20 & C-601/20 (Sovim); Ethics Acts
G-22	MATERIAL	Jennings O'Donovan — applicant/consultant structural independence not declared	Planning transparency; professional independence; P&D; Act 2000
G-23	MATERIAL	Habitat loss — hedgerows/semi-natural habitats — no NPWS-standard survey	EIA Dir. (biodiversity chapter); Habitats Dir.; NPWS Hedgerow Survey Handbook
G-24	MATERIAL	Lesser Horseshoe Bat (Annex II) — survey defects compounded by ALAN impacts	Habitats Dir. Annexes II & IV; S.I. 477/2011
G-25	MATERIAL	Nathusius' Pipistrelle (EUROBATS migratory bat) — temperature non-compliant surveys	EUROBATS Agreement; BCT Guidelines; EIA Dir.
G-26	MATERIAL	BESS groundwater contamination (LiPF ₆) — WFD not separately addressed	WFD 2000/60/EC; Groundwater Dir. 2006/118/EC
G-27	MATERIAL	No BESS emergency response / evacuation plan for residents at 512m	COMAH S.I. 209/2015; NFPA 855 §4.9; IEC 62933-5-2:2020

Ground	Severity	Summary of Ground	Law / Regulation Breached
G-28	MATERIAL	ISIF/NTMA structural State financial conflict (€636m+ in wind/BESS)	Public interest / planning transparency
G-29	MATERIAL	RSK/Ares chain — engineering consultant to BESS investor, undisclosed	Professional independence; planning transparency
G-30	MATERIAL	2022 ecological survey data invalid for revised 2024/25 layout footprint	EIA Dir. (adequacy of baseline); NPWS survey guidance
G-31	MATERIAL	AT03 — no nearest receptor noise data presented	ETSU-R-97; EPA (Ireland) Wind Turbine Noise Guidance
G-32	MATERIAL	Migratory birds — north Mayo coastal flyway (Annex I species) not assessed	Birds Dir. 2009/147/EC Annex I; Killala Bay SPA objectives
G-33	MATERIAL	BESS lifecycle — EU Batteries Regulation 2023/1542 not addressed	EU Reg. 2023/1542; EPA Waste Management Regulations
G-34	MATERIAL	No BESS photomontages — visual impact of 20-container compound unassessed	EIA Dir. (landscape/visual); ACP Visual Impact Guidelines
G-35	MATERIAL	Mayo County Council on record opposing this type of development	P&D; Act 2000 (material consideration — local authority views)
G-36	MATERIAL	Bore well — no vibration/hydrogeological assessment for 40m well at H45	BS 7385-2:1993; WFD 2000/60/EC; EPA Groundwater guidance
G-37	MATERIAL	Microplastics/blade erosion — bore well catchment unassessed; north Mayo extreme erosion	REACH Reg. EC 1907/2006 (BPA as SVHC); WFD; EIA Dir.
G-38	MATERIAL	Infrasound, LFAN and amplitude modulation — ETSU-R-97 LA90 misses these	WHO 2018; EIA Dir. (human health); EPA Guidance
G-39	MATERIAL	CPH2/hydrogen hub — undisclosed commercial dependency (CPH2 plc, AIM-listed)	Planning transparency; P&D; Act 2000 (accurate information)
G-40	MATERIAL	No EMF/EMI assessment for cables, substation, or BESS inverters	EIA Dir. (human health); ICNIRP Guidelines; EPA guidance
G-41	MATERIAL	Construction traffic — no H45 route-specific noise/vibration assessment	BS 5228-1:2009; WHO Night Noise Guidelines; EIA Dir.

PART F

Conclusion and Prayer for Refusal

I was raised in Moneen, Kincon, Ballina, Co. Mayo (H17) just a couple of Km from my current home. I inherited my home from my Grandaunt Maggie Farrell, whom I had a close relationship with. I have strong connections to my home, land and community as I have been coming here since I was a child. I hold an Honours Degree in Animal Ecology and am very connected to nature and am passionate about preserving the rich natural heritage I have been blessed to inherit and inhabit. I have planted hundreds of native trees and shrubs in my land and I want to preserve both this and the surrounding habitats, environments and community.

I believe that this development is going to have a very damaging effect on the surrounding environment and community, both in its development and in its operation. This planning application contains so many errors, omissions, attempts to mislead, inaccuracies and unenforceable mitigations that nothing is safe; air, water, land and everything that inhabits any of these spaces are all disregarded or dismissed equally.

For the reasons set out in this objection, the Objector respectfully submits that An Coimisiún Pleanála should refuse planning permission for the Tirawley Wind Farm application (PAX16.324258). The grounds are numerous, they span the full spectrum from procedural procedural nullity through to material omissions, and they include:

- A mandatory EU law obligation that has not been discharged — the Appropriate Assessment under the Habitats Directive cannot proceed without a full Natura Impact Statement, and that statement has not been submitted;
- A fundamental misrepresentation of the applicant's land holding — the blue boundary enclosing MY85163F without any agreement being in place;
- Procedural defects going to the root of the application — the BESS never having been scoped in PCX16.323906;
- Safety failures — no COMAH assessment, no thermal runaway consequence modelling, no emergency response plan for residents at 512 metres from a 150 MW BESS;
- WHO guideline exceeded at H45 — 40.2 dB LA90 against a 40 dB Lnight guideline, with a cumulative level of approximately 41.4 dB never calculated or disclosed by the applicant;
- An Annex II protected species — the Marsh Fritillary butterfly (*Euphydryas aurinia*) — photographed by the Objector within the development area, with no adequate species survey; this alone has led to wind farm refusals in Clare (2024, 2025);
- A secondary school — St Patrick's College Lacken Cross — misclassified as a domestic dwelling, with SEN students whose vulnerability has not been assessed;
- Unassessed risks to the Objector's private bore well from microplastic/BPA deposition, BESS electrolyte contamination, and construction vibration;
- A complete absence of infrasound, low-frequency noise, and amplitude modulation assessment — particularly material given the Objector's clinical diagnosis of ADHD;
- Multiple conflicts of interest, errors in official documents, and a planning framework that has not been transparently presented to An Coimisiún Pleanála.

In the alternative, if An Coimisiún Pleanála is not minded to refuse the application outright, the Objector respectfully requests that the Board:

- Request Further Information from the applicant on all Critical and Significant grounds as a minimum;
- Commission an independent acoustic assessment addressing ILFN, AM, cumulative turbine-BESS noise, and the WHO guideline exceedance at H45;
- Commission an independent Appropriate Assessment in respect of all Natura 2000 sites within the project's hydrological and ecological zone of influence;
- Require a dedicated Marsh Fritillary survey of the full development footprint, carried out at the correct time of year (late summer/early autumn) and to BCT/NPWS standards;
- Require a COMAH-compliant risk assessment and consequence modelling for the BESS installation;
- Require the applicant to correctly assess St Patrick's College Lacken Cross as an educational receptor under appropriate noise standards;
- Direct the applicant to correct the Site Layout Drawings to remove Folio MY85163F from the 'land under control of the applicant' boundary;
- Require the applicant to conduct and submit a hydrogeological assessment of the bore well at H45 and the groundwater contamination pathway from the BESS and turbine foundations;
- Attach conditions addressing BESS night lighting (ALAN), shadow flicker management for H45, and infrasound/AM monitoring.

Liam Donoghue

H45, Parish of Lacken, Co. Mayo

Folio MY85163F

25 June 2026

PART G

References and Sources

Planning and Regulatory Framework

- Planning and Development Act 2000 (as amended by the Planning and Development (Strategic Infrastructure) Act 2006; Planning and Development Act 2024)
- EIA Directive 2011/92/EU as amended by Directive 2014/52/EU
- European Communities (Environmental Impact Assessment) Regulations 2011 (S.I. 147/2011), as amended
- Habitats Directive 92/43/EEC (Council Directive on the conservation of natural habitats and of wild fauna and flora)
- Birds Directive 2009/147/EC
- European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011)
- Water Framework Directive 2000/60/EC
- Groundwater Directive 2006/118/EC
- Seveso III Directive 2012/18/EU

- S.I. 209/2015 (Control of Major Accident Hazards Regulations, Ireland)
- EU Regulation 2023/1542 on Batteries and Waste Batteries
- REACH Regulation (EC) No 1907/2006
- EUROBATS Agreement on the Conservation of Bats in Europe (1991)
- Berne Convention on the Conservation of European Wildlife and Natural Habitats (1979)
- Disability Act 2005 (Ireland)
- Irish Wildlife Acts 1976 and 2000 (as amended)

Case Law

- C-127/02 Waddenzee [2004] ECR I-7405 (Habitats Directive — AA standard)
- C-304/05 Commission v Italy [2007] (Habitats Directive — AA scope)
- C-241/08 Commission v France [2008] (Habitats Directive — in-combination effects)
- C-258/11 Sweetman v An Bord Pleanála [2013] IESC 18 (Habitats Directive — Irish Supreme Court)
- Webster & Anor v Meenacloghspar (Wind) Limited [2024] IEHC (noise nuisance — planning permission not a defence)

Planning Application Documents (tirawleywindfarm.com)

- EIAR — All Chapters (accessed via tirawleywindfarm.com)
- Drawing 6289-PL-100 (Site Layout)
- Drawing Schedule 6289-Tirawley-WF-Planning-Drawing-Schedule_Final
- Landowner Agreements (Letter of Consent)
- Construction Environmental Management Plan (CEMP)
- BESS documentation (Drawing pdf24_merged-16)
- Case Reference: PAX16.324258; Pre-application: PCX16.323906

Noise and Health

- WHO Environmental Noise Guidelines for the European Region (2018) — ISBN 978-92-890-5356-3
- ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms' (UK DTI, 1997)
- EPA (Ireland) 'Guidance Notes on Noise Assessment of Wind Turbine Operations at Permitted Sites'
- Kelley et al. (1985) 'Dynamic Response of Structures to Low-Frequency Infrasound from Wind Turbines' — NASA/DOE
- Salt & Hullar (2010) 'Responses of the Ear to Low Frequency Sounds, Infrasound and Wind Turbines' — Hearing Research 295:12–24
- Pedersen & Waye (2004, 2007) — Journal of Sound and Vibration; Journal of the Acoustical Society of America
- Nissenbaum et al. (2010/2012) — Noise & Health; Sleep Medicine
- Lotinga et al. (2017) 'Amplitude-Modulated Wind Turbine Noise' — ICBEN Proceedings (WSP/UK Government)
- Canadian Family Physician (2013) 'Adverse health effects of industrial wind turbines' — PMC3653647
- WHO Night Noise Guidelines for Europe (2009)

ADHD and Neurological Sensitivity

- Bijlenga et al. (2017) 'Atypical sensory profiles as core features of adult ADHD' — Journal of Attention Disorders
- Panagiotidi et al. (2018) 'Relationship between sensory processing sensitivity and ADHD traits' — Journal of Attention Disorders
- Cortese et al. (2013) 'Sleep in children and adolescents with ADHD: meta-analysis' — Sleep Medicine Reviews
- Stansfeld et al. (2005) 'Noise pollution: non-auditory effects on health' — British Medical Bulletin

Educational Standards

- Building Bulletin 93 Acoustic Design of Schools (UK Department for Education, 2015 edition)
- St Patrick's College Lacken Cross SEN Policy (February 2026) — lackencross.ie
- Mayo, Sligo and Leitrim ETB — school roll documentation
- WHO Environmental Noise Guidelines 2018 — school noise standards (35 dB LAeq)

Bat Conservation and Protected Species

- Bat Conservation Trust Good Practice Guidelines, 4th Edition (2016)
- NPWS Survey and Assessment of Impacts on European Protected Species — Bats (Ireland)
- Russ et al. (2001) Nathusius' Pipistrelle — Bat Conservation Trust
- Lintott et al. (2016) 'Patterns of use suggest bats avoid open-space foraging' — Animal Conservation
- Gaston et al. (2013) 'The ecological impacts of nighttime light pollution' — Biological Reviews

Marsh Fritillary

- Habitats Directive Annex II — Species Code 1065 (*Euphydryas aurinia*)
- NPWS Marsh Fritillary Species Action Plan (Ireland)
- Biodiversity Ireland — All Ireland Marsh Fritillary Database (maps.biodiversityireland.ie)
- Regan et al. (2010) 'Ireland Red List No.4: Butterflies' — NPWS
- Butterfly Conservation Ireland — October 2023 report on Marsh Fritillary conservation status
- Pollinatorseeds.ie (2026) 'The Marsh Fritillary — Ireland's Only Legally Protected Butterfly'
- RTÉ (2024-05-23) 'An Bord Pleanála refuses permission for three wind farms' — Clare FM (2025-12-08)

BESS Safety

- Sturk et al. (2017) 'Toxic fluoride gas emissions from lithium-ion battery fires' — Scientific Reports 7:10018
- NFPA 855 Standard for the Installation of Stationary Energy Storage Systems (2023 ed.)
- IEC 62933-5-2:2020 Electrical Energy Storage Systems — Safety requirements
- Moss Landing BESS fire (Vistra Energy, January 2025) — CPUC incident report
- Surprise, Arizona BESS fire (Fluence, 2021) — City of Surprise Fire Dept report

Microplastics and Blade Erosion

- Mishnaevsky et al. (2024) 'Microplastics Emission from Eroding Wind Turbine Blades: Preliminary Estimations of Volume' — Energies 17(24):6260 (DTU)
- Wind Energy Science (2025) 'Estimating microplastic emissions from offshore wind turbine blades' — Copernicus Publications
- Solberg et al. (2021) 'Leading Edge Erosion and Pollution from Wind Turbine Blades' — The Turbine Group (Norway)
- Windwiki.nl (2024) 'Risks of Bisphenol A in relation to wind turbines'
- Hof et al. (2023) RIVM Report — Dutch National Institute for Public Health and the Environment
- Bedulina et al. (2024) 'Effect of particles from wind turbine blades erosion on blue mussels' — Alfred Wegener Institute

Meteorological Data

- Met Éireann Belmullet Synoptic Station — monthly data (met.ie)
- Met Éireann (1991–2020) 30-year climate averages — Belmullet (annual rainfall ~1,220mm)
- EPA Environmental Data — Belmullet station 1961–1990 normals (mean annual rainfall 1,142mm)
- Bellacorick Wind Farm historic wind data (Wikipedia; Ireland Energy 2050)
- Western People (2025-04-07): '133 km/hour winds recorded in Mayo area during 2024'
- Met Éireann Storm Éowyn Statement (January 2025)

Conflicts of Interest / Corporate Records

- Companies Registration Office (CRO) — Constant Energy Limited filings
- Ares Management Corporation — SEC Annual Report / Climate Infrastructure Portfolio disclosures
- RSK Group Ltd — press releases and ownership disclosures
- NTMA/ISIF Annual Reports 2021–2024
- CPH2 plc — AIM regulatory announcements; Killala Energy Hub project documentation
- Pinsent Masons planning analysis (May 2026) — post-Webster v Meenacloghspar commentary

Habitat and Ecology

- NPWS Hedgerow Survey Handbook (Ireland)
- Countryside Survey Ireland
- Marnell et al. (2014) Irish Bat Monitoring Programme
- BirdWatch Ireland Red List (2020)
- NPWS Article 17 Habitats Directive Reporting (2019) — Ireland

PART H

Appendix — Supporting Submissions

Appendix A Conflicts of Interest and Beneficial Ownership Transparency

Scope: A fourteen-part analysis tracing the ownership, financial, and directorship relationships surrounding this application. Raises serious questions about the independence of the planning process at multiple levels.

Key findings:

COI-1. Constant Energy Beneficial Ownership: Single Unnamed Shareholder, Identity Not Publicly Ascertainable Following CJEU Joined Cases C-37/20 and C-601/20 (Sovim)

The argument: Constant Energy Limited is the applicant for this Strategic Infrastructure Development. A search of the Companies Registration Office (CRO) records reveals that the company's shares are held by a single shareholder whose identity is not publicly ascertainable through the Register of Beneficial Owners (RBO) maintained by the CRO, following the suspension of public access to the RBO consequent upon the judgment of the Court of Justice of the European Union in Joined Cases C-37/20 and C-601/20 (WM and Sovim SA v. Luxembourg Business Registers, Grand Chamber, 22 November 2022). The Sovim judgment held that the provision of the Fifth Anti-Money Laundering Directive mandating unrestricted public access to beneficial ownership registers constituted a disproportionate interference with fundamental rights under Articles 7 and 8 of the EU Charter of Fundamental Rights; public access to the RBO was thereafter suspended in Ireland. The consequence, in the planning context, is that the public, third-party objectors, and the Board itself have no accessible means of verifying the identity of the natural persons who ultimately own and control Constant Energy Limited, whether those persons have interests in other developments or entities relevant to the assessment of this application, or whether there are connections between the beneficial owners and any public official, financial institution, or regulatory body with a role in the determination of this application. The Board's obligations as a public authority to conduct its business in a manner consistent with public trust and procedural fairness require that, for a Strategic Infrastructure Development of this scale and public significance, the Board secure full beneficial ownership disclosure from the applicant before proceeding to determination.

Sources: CJEU, Joined Cases C-37/20 and C-601/20 (WM and Sovim SA v. Luxembourg Business Registers), Grand Chamber, 22 November 2022; Directive (EU) 2018/843 (5th AMLD), Art. 30(5); European Union (Anti-Money Laundering: Beneficial Ownership of Corporate Entities) Regulations 2019 (SI 110/2019); PDA 2000, s. 172(1)(c); An Coimisiún Pleanála Procedural Guidelines (2024); Freedom of Information Act 2014 (Ireland); EU Charter of Fundamental Rights, Arts. 7, 8, 47.

COI-2. Amber Mint Limited (CRO 676661): Undisclosed Connected Entity With Identical Director, Identical Registered Address, and Possible Ownership Interest in Constant Energy

The argument: A company search of the Companies Registration Office reveals the existence of Amber Mint Limited (CRO number 676661), incorporated in August 2020 with an identical director to Constant Energy Limited and an identical registered address at the sixth floor of Riverpoint, Henry Street, Limerick. The corporate profile of Amber Mint Limited — its date of incorporation, directorial structure, and registered address — is consistent with its being a holding entity, nominee shareholder, or interposed vehicle created to hold or manage the shares of Constant Energy Limited, or to act as the named shareholder of that company. Amber Mint Limited has not been disclosed anywhere in the planning application, the EIAR, or any ancillary document submitted in connection with this application. If Amber Mint Limited is, or has at any time been, the named shareholder of Constant Energy Limited, then the existence of two layers of ownership opacity — Constant Energy (developer/applicant) and Amber Mint (potential holding company) — represents an unacceptable level of corporate opacity in a planning application for a Strategic Infrastructure Development with significant public interest implications. The objector is not in a position to ascertain from publicly available information whether Amber Mint Limited has relevant commercial connections or interests beyond those described herein; this uncertainty is itself a consequence of the beneficial ownership opacity that this ground of objection addresses. The Board is formally requested

to require the applicant to provide a full corporate structure chart and confirm whether Amber Mint Limited has any current or historical connection to Constant Energy Limited.

Sources: Companies Registration Office (CRO), CRO number 676661 (Amber Mint Limited); CJEU, Joined Cases C-37/20 and C-601/20 (Sovim); EU (Anti-Money Laundering: Beneficial Ownership) Regulations 2019 (SI 110/2019); PDA 2000, s. 172(1)(c) (obligation to provide full information); An Coimisiún Pleanála Procedural Guidelines (2024); Companies Act 2014 (Ireland), ss. 22–23 (director disclosure obligations).

COI-3. Jennings O'Donovan Independence: No Conflict of Interest Declaration From the Engineering Consultancy That Prepared Planning Drawings for the Applicant

The argument: Jennings O'Donovan and Partners Limited, a consulting engineering firm based in Sligo, prepared the planning drawings, engineering design, and related technical documents submitted with this application on behalf of Constant Energy Limited. The application contains no declaration of independence from Jennings O'Donovan confirming that the firm has no directorial, financial, familial, or personal relationship with Constant Energy Limited or its directors or shareholders that would give rise to a conflict of interest in the preparation of objective professional advice. The existence of such a declaration is not merely a matter of good professional practice under Engineers Ireland's Code of Ethics; it is, in the context of a Strategic Infrastructure Development submitted to An Coimisiún Pleanála, a matter of procedural fairness and public confidence in the integrity of the assessment process. The Board relies upon the professional independence of the expert witnesses and technical advisers whose work is placed before it; if any such adviser lacks independence from the applicant, the objectivity of their assessment may be compromised in ways that are not apparent from the face of the technical documents. Furthermore, as set out in COI-4, Jennings O'Donovan is now a wholly owned subsidiary of the RSK Group, a circumstance that creates a distinct and additional conflict-of-interest concern addressed in that ground. The Board is requested to require Jennings O'Donovan and Partners Limited to submit a formal conflict of interest declaration addressing all aspects of its relationship with Constant Energy Limited and its principals.

Sources: Engineers Ireland Code of Ethics (2019 ed.), Arts. 3.1, 3.2 (independence and conflict of interest); An Coimisiún Pleanála Procedural Guidelines (2024), para. 7.2 (expert witness obligations); Aarhus Convention (UNECE), Art. 6(2) (public participation in planning and substantive procedural fairness); PDA 2000, s. 172; International Ethics Standards Board for Accountants (IESBA) Code of Ethics (analogous professional ethics framework).

COI-4. RSK Group / Ares Management Chain: Engineering Consultants for This BESS Application Are Ultimately Owned by a Group Whose Major Equity Investor Is One of the World's Largest BESS Investors

The argument: Jennings O'Donovan and Partners Limited is a wholly owned subsidiary of RSK Group Limited, a private environmental, engineering, and technical services group headquartered in the United Kingdom. RSK Group received a substantial equity investment and debt financing package — totalling approximately £1.4 billion, comprising approximately £520 million in equity and approximately £300 million in debt instruments — from a consortium of investors that included Ares Management Corporation (NYSE: ARES). Ares Management Corporation is one of the largest alternative asset managers in the world and is, by reference to publicly available portfolio information, one of the most active institutional investors in battery energy storage systems globally, with reported deployments in excess of USD 2 billion across more than sixty BESS investments across multiple continents. The engineering consultant responsible for preparing the planning drawings, engineering assessments, and technical documents for this BESS planning application is therefore, through a corporate chain of ownership, ultimately connected to one of the world's largest BESS institutional investors. This connection is not disclosed anywhere in the application documents. The objector acknowledges that this connection is indirect and does not, in itself, constitute a legal bar to Jennings O'Donovan's participation in the project; however, the non-disclosure of a material ownership connection between the applicant's engineering advisers and a major BESS investor class is a matter of legitimate public concern in the context of a planning process that depends upon the independence and objectivity of professional advisers, and the Board is requested to require a formal disclosure and explanation from Jennings O'Donovan and RSK Group.

Sources: RSK Group announcement of Ares Management investment (publicly available, c. 2022); Ares Management Corporation (NYSE: ARES), Annual Report and Form 10-K (2024) (BESS investment portfolio); RSK Group, acquisition of Jennings O'Donovan (17 August 2023, [rskgroup.com](https://www.rskgroup.com)); An Coimisiún Pleanála Procedural Guidelines (2024), para. 7 (professional independence); PDA 2000, ss. 172, 143; Freedom of Information Act 2014; Companies Act 2014, s. 26 (group structure disclosure).

COI-5. CPH2 (Clean Power Hydrogen plc) Undisclosed Commercial Relationship: Planning Consent as a Gateway Condition for a Publicly Listed Company Whose Investors Were Not Notified in the Application

The argument: As described in BESS-17, Constant Energy Limited entered into a Memorandum of Understanding with CPH2 Limited (trading as Clean Power Hydrogen plc, LSE AIM: CPH2) on 16 June 2025. The MOU contemplates an initial purchase of five 1MW MFE220 hydrogen electrolyser units and, in the longer term, up to 200MW of electrolyser capacity at the Killala Energy Hub in County Mayo, directly utilising the curtailed energy of renewable generation in the vicinity — which, in the context of Constant Energy's development portfolio, must refer principally to the Tirawley Wind Farm. The grant of planning permission for the Tirawley project, and for its BESS component in particular, therefore constitutes a commercially material gateway condition for the fulfilment of a contractual relationship to which a publicly listed company has committed, and in respect of which that company has made market disclosures to investors on the London Stock Exchange. The existence of this commercial relationship creates a potential conflict between the public interest in a full, transparent, and impartial planning assessment and the financial interests of the stakeholders of a listed company with a commercial dependency upon the outcome of that assessment. The non-disclosure of this material commercial relationship in the planning application is inconsistent with the obligation of full disclosure imposed by the Planning and Development Act 2000 and the Board's legitimate interest in understanding all material factors bearing upon the application it is asked to determine. The Board is requested to require Constant Energy to confirm the current status of its commercial relationship with CPH2 and to provide copies of all representations made to CPH2 regarding the expected outcome and timing of this planning application.

Sources: CPH2 Ltd / Constant Energy MOU, 16 June 2025 (cph2.com); UK FCA Disclosure Guidance and Transparency Rules, DTR 2 (material information disclosure by listed companies); PDA 2000, s. 172(1)(c) (obligation to provide full information in planning applications); An Coimisiún Pleanála Procedural Guidelines (2024); Market Abuse Regulation (EU) 596/2014, Art. 17 (disclosure of inside information by issuers).

COI-6. Ireland Strategic Investment Fund / NTMA: State Sovereign Development Fund as Cornerstone Investor in the BESS Sector That An Coimisiún Pleanála Regulates

The argument: The Ireland Strategic Investment Fund (ISIF), managed and controlled by the National Treasury Management Agency (NTMA), has committed €140 million as a cornerstone investor in TirNua Capital Partners' inaugural €340 million energy transition infrastructure fund, announced in March 2026. TirNua Capital Partners, a joint venture between Irish Life Investment Managers (ILIM) and Northleaf Capital Partners, has publicly stated that its investment focus includes renewable power, energy efficiency, and related infrastructure assets, with at least 60% of investments expected to support Irish-based businesses and infrastructure projects. The energy transition infrastructure fund therefore targets, as a matter of investment strategy, assets in the same sector — onshore wind energy and BESS — that An Coimisiún Pleanála is simultaneously charged with regulating through its planning consent function. An Coimisiún Pleanála is a State body funded by the Irish Exchequer, under the ultimate governance of the Government of Ireland; ISIF is a sovereign development fund managed and controlled by the NTMA, itself a State body under the direction of the Minister for Finance. The circular structure — in which the State, through ISIF, is a significant financial investor in the renewable energy and BESS sector, while simultaneously, through An Coimisiún Pleanála, performing the regulatory planning function for individual projects in that sector — raises a systemic question of institutional integrity that the objector respectfully places before the Board. The objector requests that An Coimisiún Pleanála disclose whether any current board member or inspector assigned to this case has any financial interest in, or employment connection with, any ISIF-backed energy transition investment vehicle.

Sources: TirNua Capital Partners, ISIF cornerstone investment announcement, 10 March 2026 (tirnua.com/news/isif-announcement); ISIF, Portfolio page (isif.ie/portfolio); National Treasury Management Agency Act 2014; PDA 2000, s. 143 (Board obligations); Standards in Public Office Act 2001 (Ireland), ss. 17–22 (declarations of interest); European Convention on Human Rights, Art. 6(1) (right to a fair hearing before an independent tribunal, as applied in planning contexts by the Irish courts).

COI-7. Overlapping Institutional Interests Across the North Mayo Wind Energy Landscape: Norwegian Government Pension Fund Global, BlackRock, SSE Renewables, and European Investment Bank

The argument: The north County Mayo wind energy landscape is characterised by a concentration of overlapping institutional financial interests that are not individually disclosed in this planning application but which, in aggregate,

create a structural context of potential conflicts of interest relevant to the public interest assessment. SSE Renewables, a subsidiary of SSE plc, is the developer of the Glenora Wind Farm (22 turbines and associated BESS, consented May 2026), located approximately 7 kilometres from the Tirawley site. The Norwegian Government Pension Fund Global (Norges Bank Investment Management) holds approximately 3.42% of SSE plc's issued share capital as part of its global index-tracking investment portfolio. BlackRock Inc., which holds approximately 10% of SSE plc's issued share capital, is also a significant investor in Ares Management Corporation, the institutional equity investor in RSK Group (parent of Jennings O'Donovan, engineering consultant to Constant Energy). The European Investment Bank (EIB) co-financed the adjacent Oweninny Wind Farm, which is among the largest peat bog wind farms in Europe. These overlapping institutional interests — a sovereign wealth fund, a global asset manager, a state development bank, and a major UK utility — represent an interlocking web of financial connections across the north Mayo renewable energy landscape that has not been disclosed to the Board or to the public. The objector does not contend that any individual connection is, of itself, determinative; the concern is systemic: the cumulative density of institutional financial interest in the favourable planning outcome of a cluster of north Mayo wind energy projects warrants scrutiny and disclosure.

Sources: Norges Bank Investment Management, Portfolio Holdings (SSE plc, as reported); BlackRock Inc., 13F filings (SSE plc and Ares Management Corporation holdings); SSE plc Annual Report 2024; European Investment Bank, Oweninny Wind Farm financing (eib.org, project database); RSK Group/Ares Management investment (publicly available); An Coimisiún Pleanála Procedural Guidelines (2024); Standards in Public Office Act 2001; Ethics in Public Office Act 1995.

COI-8. Formal Requests for Beneficial Ownership and Conflict of Interest Disclosure: Declarations of Interest From Board Members and Inspectors Assigned to This Case

The argument: By reason of all of the matters set out in COI-1 through COI-7, the objector formally requests that An Coimisiún Pleanála take the following specific steps before proceeding to the determination of this application. First, the Board should require Constant Energy Limited to submit a complete and up-to-date beneficial ownership disclosure identifying all natural persons who are ultimate beneficial owners of the company, together with a corporate structure chart showing all intermediate holding entities. Second, the Board should require formal conflict of interest declarations from all professional parties who have contributed to the preparation of the application, including in particular Jennings O'Donovan and Partners Limited and RSK Group Limited, addressing all directorial, financial, and personal connections to Constant Energy Limited, its directors, and its shareholders. Third, the Board should require CPH2 Limited (Clean Power Hydrogen plc) to confirm the current status of its commercial relationship with Constant Energy Limited and to disclose all representations made to or received from Constant Energy regarding the expected outcome of this planning application. Fourth, in accordance with the Standards in Public Office Act 2001 and the Ethics in Public Office Act 1995, all current members of the Board of An Coimisiún Pleanála and all inspectors and officials assigned to this case (PAX16.324258) should be required to submit declarations of interest confirming whether they hold, directly or indirectly, any financial interest in any renewable energy, BESS, or energy infrastructure investment vehicle relevant to the matters the subject of this application. The objector respectfully submits that these requests are proportionate, reasonable, and necessary to ensure that the planning process for this Strategic Infrastructure Development is conducted in a manner that maintains public trust and procedural integrity.

Sources: Standards in Public Office Act 2001 (Ireland), ss. 17–22, 30; Ethics in Public Office Act 1995 (Ireland), ss. 13–18; Freedom of Information Act 2014 (Ireland); Aarhus Convention, Arts. 6–8 (public participation and access to justice); European Convention on Human Rights, Art. 6(1); PDA 2000, ss. 172, 143; An Coimisiún Pleanála Procedural Guidelines (2024), paras. 6–9; CJEU, Joined Cases C-37/20 and C-601/20 (Sovim).

Legal framework invoked: Nemo iudex in causa sua (objective bias); Planning and Development Act 2024 (declarations of interest); Standards in Public Office Act 2001; Ethics in Public Office Act 1995; EIA Directive Article 3; Habitats Directive Article 6(3); Aarhus Convention; Companies Act 2014 / Anti-Money Laundering Regulations 2019; Orange Communications Ltd v Director of Telecommunications Regulation [2000] 4 IR 159.

Appendix B Boundary Objection — Folio MY85163F (Blue Boundary Misrepresentation)

Scope: A standalone nine-page submission documenting the unauthorised inclusion of the Objector's land within the applicant's claimed boundary, supported by cross-reference to three mutually inconsistent application documents.

Key findings:

- Drawing 6289-PL-100 (Site Layout, publicly accessible via tirawleywindfarm.com) shows Folio MY85163F within a blue boundary line keyed as 'Land Under Control of the Applicant'. No agreement, waiver, licence, consent, option, heads of terms, or any other form of legal or informal understanding is currently in place between the Objector and Constant Energy Limited, its directors, agents, or assigns.
- Three-way internal contradiction in the application documents: (1) Drawing 6289-PL-100 classifies Folio MY85163F as controlled land; (2) EIAR Chapter 11 (Noise Assessment) treats the same property as noise Receptor H45 — an independent third-party receptor, not controlled land; (3) The Landowner Agreements (Letter of Consent) document lists sixteen folios held by eleven landowners who have consented — Folio MY85163F does not appear on that list. These three documents form part of the same statutory application. They are mutually inconsistent.
- A representative of Constant Energy Limited contacted the Objector on multiple occasions. No agreement was reached and no agreement is currently in place. The Objector strongly opposes this development.
- Legal consequences: Under Article 22 of the Planning and Development Regulations 2001 (as amended), an applicant is required to submit accurate information and to demonstrate sufficient legal interest in the application lands. Drawing 6289-PL-100 constitutes a material misstatement of the applicant's land holding position. An Coimisiún Pleanála is entitled to refuse permission, or to require the applicant to correct the boundary drawings, where it is not satisfied that the applicant has the necessary legal interest in all lands within the application boundary.
- Formal requests: (1) Require the applicant to correct Drawing 6289-PL-100 to remove Folio MY85163F from the blue boundary; (2) Consider whether this misrepresentation, in combination with other errors identified across this submission, reflects a pattern of inaccuracy that goes to the overall reliability of the application documents.

Appendix C No Confidence in Applicant Competence and Willingness to Deliver

Scope: A seventeen-page submission documenting a persistent and verified pattern of material errors, omissions, and procedural failures across five planning processes spanning three years. Addresses post-permission enforceability of any conditions granted.

Key findings:

- Five planning processes, three years, zero permissions: Constant Energy has submitted to An Coimisiún Pleanála five separate processes (Case Refs. 315864, 320703, 323778, 323906, 324258) between February 2023 and April 2026. The turbine count has reduced from 31 to 16 — a 48% reduction — driven by repeated failures at official consultation stage.
- Rejection of first REDIII application: The applicant's first application under the RED III Strategic Infrastructure Development process was rejected as incomplete within six weeks of lodging in November 2025, with over 130 individual deficiencies catalogued across every required category: plans, drawings, EIAR all chapters, AA Screening (absent), NIS (absent), and other mandatory documents. An experienced, competent applicant does not submit a REDIII application in this condition.
- Mayo County Council opposition — twice: MCC stated it was 'not in favour' of the development at both the 2023 and 2026 pre-application consultations. At the 2026 stage, MCC confirmed the proposals were essentially unchanged from the rejected application and that its position was 'unlikely to change'. The local planning authority has consistently opposed this development across its entire planning history.
- Five turbines outside permissible Tier lands (increasing from three): At the March 2026 pre-application, MCC confirmed turbines AT01, AT05, AT06, AT07, and AT12 were outside both Tier 1 and Tier 2 lands. Only AT02, AT03, and AT04 were considered acceptable in principle. The number of non-compliant turbines grew despite official feedback.
- Dispersed layout non-conformance flagged twice, not corrected: Both 2023 and 2026 pre-application reviews found the layout did not conform to the Draft Revised Wind Energy Development Guidelines 2019. The same criticism recorded at two separate official consultations has not been corrected.
- Archaeology error: Legally incorrect mapping source used. MCC confirmed the applicant used the Historic Environment Viewer (HEV) rather than the legally required printed RMP maps for archaeological assessment — meaning the entire

archaeological chapter is based on an incorrect legal source.

- CEMP template error: The Construction Environmental Management Plan names 'Limerick City and County Council' as the relevant planning authority. The development is in County Mayo. This demonstrates the document is a template that has not been adequately adapted to this specific project.
- Céide Fields: MCC flagged that the full extent of Ireland's Céide Fields — on Ireland's Tentative UNESCO World Heritage List — is unknown and may reach as far as the wind farm site. The archaeological assessment has not adequately addressed this internationally significant heritage site.
- Constant Energy Limited has no completed operational wind farm. Its prior Irish project history includes a 2009 Galway gas plant that attracted 300+ objections and was withdrawn after a council recommendation of refusal, and a 2022 Bellacorick pre-application withdrawn before full application stage. The company now seeks permission for a 16-turbine wind farm with a 150 MW BESS without any comparable completed project on its record.
- Post-permission enforceability: *Webster v Meenacloghspar (Wind) Limited* [2024] IEHC established that planning permission is NOT a complete defence to a nuisance action. Given the applicant's documented pattern of non-compliance with official guidance before permission, there is no reasonable basis for confidence that conditions attached to any permission would be honoured. Mayo County Council's own Noise Action Plan 2024-2028 acknowledges limited enforcement resources. There is no mechanism by which the Objector can obtain effective redress from Mayo County Council for non-compliance with turbine or BESS noise or lighting conditions after construction.

Appendix D Battery Energy Storage System (BESS) — 20 Grounds of Objection

Scope: This appendix sets out twenty grounds of objection addressing the BESS as a separate and inadequately assessed development component, across four categories: procedural deficiencies, nature conservation, fire/safety/Seveso III, and people/health/environment. These grounds form part of this submission and are advanced in addition to the BESS grounds set out in Parts B, C, and D above.

Key findings:

BESS-1. Failure to Subject the BESS Component to Independent Scoping, Statutory Consultation, and Dedicated Environmental Impact Assessment

The defect: The Battery Energy Storage System ("BESS") of 150MW capacity was absent from the original application and from the scoping opinion issued in connection with the earlier REDIII fast-track submission. It was inserted into the development without independent scoping, without dedicated consultation with the Environmental Protection Agency, the National Parks and Wildlife Service, or the Office of Public Works, and without any public notification of the material change to the project description. The Environmental Impact Assessment Report ("EIAR") contains no standalone BESS chapter and does not assess the BESS as a discrete development component with its own land take, drainage infrastructure, noise profile, fire risk, chemical inventory, or visual impact. This procedural failure is not a minor omission: the BESS constitutes a substantial and technologically distinct element of the overall development, with a footprint, operational characteristics, and risk profile materially different from the wind turbines to which it is ancillary in name only. Section 177I of the Planning and Development Act 2000 (as amended) requires the Environmental Impact Assessment Report to identify, describe, and assess, in an appropriate manner and in light of each individual case, the direct, indirect, secondary, cumulative, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the proposed development. That obligation cannot be discharged in respect of the BESS when its introduction into the application was never the subject of scoping, was never notified to the public, and when no dedicated chapter addresses its full range of environmental effects. The Board is therefore not in possession of the information required by Article 5(1) and Annex IV of EIA Directive 2011/92/EU (as amended by 2014/52/EU) to make a lawful determination, and cannot grant permission in circumstances where the EIA process has been fundamentally compromised at its earliest and most critical stage.

Sources: Planning and Development Act 2000 (as amended), s. 177I; EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU, Arts. 3, 5(1) and Annex IV; *An Bord Pleanála v. Dublin City Council* [2016] IESC 18; *XJS Investments Ltd v. Dun Laoghaire Corporation* [1986] IR 750 (materiality of public participation).

BESS-2. The BESS Constitutes Separate or Sub-threshold Development Requiring a Standalone Environmental Impact Assessment

The defect: A 150MW Battery Energy Storage System is not, as a matter of law or fact, merely ancillary to the generation of renewable energy. It is a major industrial installation in its own right, with a discrete and substantial land take, a dedicated compound with perimeter fencing, permanent bunds, surface water drainage infrastructure, transformers, inverters, thermal management systems, access tracks, and lamp posts. The aggregate of its environmental effects — noise from thermal management and inverter systems, artificial light at night, fire and explosion risk, chemical storage and groundwater contamination potential, visual intrusion, abnormal load delivery traffic, and EMI — each individually and cumulatively requires dedicated assessment under Schedule 5 of the Planning and Development Regulations 2001 (as amended). Where a development component would, if proposed as a standalone project, require an EIAR by virtue of its scale, nature, or sensitivity of its location, it cannot be exempted from that requirement by being co-located with or appended to a wind energy project. The Board must consider whether the BESS, assessed independently, would constitute development within Schedule 5, Part 2, column 2 of the 2001 Regulations (industrial installations for the storage of chemical products, or energy infrastructure of significant scale), and if so, must require a standalone EIAR or a materially complete addendum. To proceed to determination without that assessment would be to permit the applicant to circumvent the EIA Directive by disaggregating components of what is, in substance, a single, integrated industrial development.

Sources: EIA Directive 2011/92/EU (as amended), Arts. 2(1), 4(2); Planning and Development Regulations 2001 (SI 600/2001), Schedule 5, Part 2; Case C-2/07 Abraham v. Région wallonne [2008] ECR I-1197; Case C-227/01 Commission v. Spain [2004] ECR I-8253 (obligation to assess all effects of a project); PDA 2000, s. 172(1).

BESS-3. REDIII Fast-Track Classification Cannot Lawfully Apply to Energy Storage and Cannot Override the EIA Directive, the Habitats Directive, or the Planning and Development Act 2000

The argument: Directive (EU) 2023/2413 (REDIII) provides that renewable energy projects may benefit from accelerated permitting procedures as part of the EU's policy to promote the uptake of renewable energy sources. However, a battery energy storage system does not generate renewable energy; it stores electrical energy, which may have been generated from any source and which, during periods of grid imbalance, may originate in whole or in part from fossil fuel generation. REDIII cannot, by its terms, grant accelerated permitting status to a component of a project that does not itself constitute renewable energy generation. Even if a purposive interpretation were adopted to extend REDIII's accelerated procedure to co-located storage, that procedural mechanism cannot override the substantive environmental assessment obligations imposed by EIA Directive 2011/92/EU and the Habitats Directive 92/43/EEC. These are framework directives of the highest environmental law significance, and Member State procedural acceleration measures may not lawfully reduce the substantive protection they afford. The applicant has not, in any part of the planning application, sought or obtained a formal ruling from the competent authority that the BESS falls within the scope of REDIII's accelerated permitting regime; that question has been left entirely unresolved, creating a fundamental jurisdictional uncertainty. The Board is requested to formally determine whether the BESS is properly classified under REDIII before proceeding to determination, and, in any event, to confirm that neither REDIII nor any national transposing measure reduces the standard of EIA or Habitats Directive compliance required for this component of the development.

Sources: Directive (EU) 2023/2413 (REDIII), Recitals 1–4, Arts. 1–3; EIA Directive 2011/92/EU (as amended), Art. 1(1); Habitats Directive 92/43/EEC, Art. 6(3); PDA 2000, s. 172; Case C-215/06 Commission v. Ireland [2008] ECR I-4911 (EIA cannot be circumvented by subsequent consent procedures).

BESS-4. Fire and Explosion Risk from Thermal Runaway: Absence of a Dedicated BESS Fire Risk Assessment and Failure to Apply NFPA 855 Separation Distances

The defect: Battery energy storage systems utilising lithium-ion cell chemistry are subject to the phenomenon of thermal runaway, a self-sustaining exothermic reaction that, once initiated, propagates rapidly through a battery module and between adjacent battery units, producing intense heat, toxic gases, and, in severe cases, explosion and prolonged fire that cannot be suppressed by conventional firefighting methods. The application contains no standalone BESS Fire Risk Assessment prepared by a Chartered Fire Safety Engineer and compliant with NFPA 855 (Standard for the Installation of

Stationary Energy Storage Systems) or BS EN IEC 62933 (Electrical Energy Storage (EES) Systems). No analysis has been provided of the minimum inter-unit and unit-to-receptor separation distances mandated under NFPA 855 Table 4.1.4.5, and no demonstration has been made that the proposed siting of 20 battery containers at 512 metres from Receptor H45 is consistent with those standards. The severity and intractability of thermal runaway events at large-scale BESS facilities is well documented by reference to real-world incidents of the highest materiality: the McMicken, Arizona event (April 2019), in which thermal runaway caused an explosion injuring four first responders; the Merritt Island, Florida facility fire (March 2023); the Liverpool, New South Wales event (July 2023); and, most significantly, the Moss Landing, California incident (January 2024), in which the Vistra Energy 182.5MW Elkhorn BESS facility suffered a catastrophic thermal runaway event that burned for three days, necessitated the evacuation of a substantial surrounding area, and is the subject of ongoing regulatory investigation by WECC and CPUC. These documented precedents from comparable-scale facilities establish that the risks attendant on a 150MW BESS cannot be dismissed, and that the absence of a dedicated, professionally authored fire risk assessment represents a critical gap in the information placed before the Board.

Sources: NFPA 855 (2023 edition), Standard for the Installation of Stationary Energy Storage Systems, Table 4.1.4.5; BS EN IEC 62933-5-2:2020; UL 9540A (Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems); WECC/CPUC Moss Landing BESS Fire Preliminary Report (2025); EIA Directive 2011/92/EU (as amended), Annex IV, para. 5 (description of likely significant effects including risks of major accidents); EIA Directive 2014/52/EU, recital 30 (major accidents and disasters).

BESS-5. Toxic Gas Dispersion During Thermal Runaway: No Atmospheric Dispersion Modelling, No Evacuation Zone, No Emergency Response Plan

The defect: Lithium-ion battery thermal runaway events produce a characteristic cocktail of toxic and asphyxiant gases, including hydrogen fluoride (HF), carbon monoxide (CO), hydrogen cyanide (HCN), and a range of volatile organic compounds (VOCs). Hydrogen fluoride is classified as immediately dangerous to life or health (IDLH) at 30 ppm (NIOSH/OSHA standard) and is acutely toxic at concentrations far below the IDLH threshold. The application contains no atmospheric dispersion modelling of the toxic gas plume that would be generated by a major thermal runaway event at the 150MW BESS compound located 512 metres from Receptor H45, and no determination has been made of the concentration of HF, CO, or HCN to which the objector's dwelling would be exposed under representative meteorological conditions. No evacuation zone has been mapped, no Emergency Response Plan has been submitted to An Garda Síochána, the Mayo County Council Fire Authority, or the National Ambulance Service, and no arrangement for community notification in the event of a major BESS incident has been described. The objector's clinical ADHD diagnosis, which impairs rapid processing of complex or novel emergency information, is an individual vulnerability that heightens the relevance and urgency of this omission. The EIA Directive as amended by Directive 2014/52/EU expressly requires the EIAR to describe the risk of major accidents and disasters relevant to the project, including the vulnerability of the project to such risks and the measures envisaged to prevent and mitigate the consequences of such accidents; none of that information has been provided in respect of the BESS.

Sources: EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU, Annex IV, para. 5(f); NIOSH Pocket Guide to Chemical Hazards (HF IDLH 30 ppm); NFPA 855 (2023), s. 4.5 (emergency planning); Health Act 1947 (Ireland), s. 31A; Seveso III Directive 2012/18/EU, Art. 12 (land-use planning); Irish Fire Services Act 1981, s. 18 (fire authority consultation obligations).

BESS-6. Failure to Conduct Seveso III / COMAH Threshold Assessment and to Consult the Health and Safety Authority Under Article 13 of the Seveso III Directive

The defect: Council Directive 2012/18/EU (Seveso III) is transposed into Irish law by the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (SI 209/2015) ("COMAH Regulations"). The Seveso III Directive and COMAH Regulations apply to establishments where dangerous substances are present in quantities at or above specified threshold quantities set out in Annexes I and II. A 150MW lithium-ion BESS contains substantial quantities of electrolyte materials, including lithium hexafluorophosphate (LiPF₆) dissolved in organic carbonate solvents, both of which are classified as dangerous substances under EU CLP Regulation 1272/2008. No threshold assessment has been submitted with the application to determine whether the BESS, either alone or in combination with the proposed on-site transformer oil inventory, meets or approaches the lower or upper tier thresholds under Annex I of the Seveso III Directive. Article 13 of the Seveso III Directive, which is directly transposed by Regulation 26 of the COMAH Regulations, imposes a specific obligation on competent authorities (including the Board in its planning consent function) to consult the Health and Safety Authority (HSA) before granting planning permission for new

establishments that may give rise to major accident hazards. There is no record in the application documentation that any consultation with the HSA has been conducted, and the applicant has provided no evidence that the BESS falls below applicable thresholds. The omission of a threshold assessment and the consequent failure to consult the HSA constitutes a breach of a mandatory statutory procedural requirement and vitiates the lawfulness of any consent granted in the absence of that consultation.

Sources: Directive 2012/18/EU (Seveso III), Arts. 3, 12, 13, and Annexes I–II; European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (SI 209/2015), Regulations 5, 26; EU CLP Regulation 1272/2008, Annex VI (classification of dangerous substances); PDA 2000, s. 143 (Board's obligation to have regard to the proper planning and sustainable development of the area).

BESS-7. Absence of a Dedicated BESS Operational Noise Assessment, Including Low-Frequency and Tonal Noise, and Cumulative Assessment at Receptor H45

The defect: A 150MW BESS installation generates continuous operational noise from multiple sources operating simultaneously and without interruption: thermal management systems (fans and liquid cooling circuits), high-power inverters, medium and high-voltage transformers, HVAC plant, and network protection switchgear. The noise emitted by inverters and transformers is frequently tonal and may have significant low-frequency components below the standard A-weighted measurement range that are nonetheless perceptible to and disruptive for occupants of nearby dwellings. The EIAR contains no dedicated BESS noise chapter; no measurement baseline has been established at Receptor H45 at 512 metres from the BESS compound; no prediction model has been applied to the BESS as a distinct noise source; and no cumulative assessment has been conducted combining BESS operational noise with the concurrent operational noise of the wind turbines, which may have a masking or additive relationship depending on wind speed and direction. The absence of tonal noise analysis is a particularly significant omission given that inverters generate harmonic distortion at discrete frequencies that may give rise to amplitude modulation or tonal penalty under the methodology of BS 4142:2014+A1:2019. Furthermore, the objector's ADHD diagnosis is associated with heightened sensitivity to continuous, unpredictable, or tonal environmental noise; this neurological vulnerability renders the omission of a dedicated BESS noise assessment directly material to the assessment of health impacts under Annex IV, paragraph 5 of the EIA Directive.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(b) (noise as a significant effect); WHO Environmental Noise Guidelines for the European Region (2018); BS 4142:2014+A1:2019 (Methods for rating and assessing industrial and commercial sound); Wind Energy Development Guidelines, DoECLG 2006 (as revised); Planning and Development Regulations 2001, Schedule 6 (EIA Regulations); PDA 2000, s. 177I.

BESS-8. Artificial Light at Night from the BESS Compound: Unassessed Impact on a Neurodiverse Receptor at 512 Metres

The defect: The BESS compound elevation drawings lodged with the application depict lamp posts and security lighting as permanent features of the compound perimeter and internal layout. Despite this, the application contains no lighting specification, no illuminance (lux) assessment, no description of the operational hours and intensity of the proposed lighting scheme, no assessment of spill light at the boundary of the compound or at Receptor H45, and no Artificial Light at Night (ALAN) impact assessment of any kind. The compound's security lighting will be visible from Receptor H45 at 512 metres throughout the year and at all hours of darkness, which in rural County Mayo extends to approximately sixteen hours per day in winter months. The effects of ALAN on human health, including disruption of circadian rhythm, melatonin suppression, sleep disturbance, and exacerbation of attention deficit hyperactivity disorder (ADHD) symptomatology, are well established in the scientific literature. The objector has been formally diagnosed with ADHD; ALAN-induced sleep disruption is a recognised pathway for worsening of ADHD symptom severity in adults, including impaired executive function, emotional dysregulation, and attentional difficulties. The total absence of any ALAN assessment in the EIAR in respect of a receptor with a documented vulnerability to light-related sleep disruption, residing year-round within 512 metres of a permanently lit industrial compound, is a material deficiency that renders the environmental impact assessment fundamentally incomplete in respect of human health impacts, as required by Annex IV, paragraph 5(b) of the EIA Directive.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(b) (human health); Institute of Lighting Professionals (ILP) Guidance Note 01 for the Reduction of Obtrusive Light (2021); IDA/ILE Model Lighting Ordinance; WHO Environmental Noise and Light Guidelines; NICE Clinical Guideline NG87 (Attention deficit hyperactivity disorder); PDA 2000, s. 143; EPDA Regulations 2001, Article 99 (requirement for full environmental information).

BESS-9. Absence of BESS-Specific Photomontages from Agreed Viewpoints: Visual Impact of the BESS Compound Unassessed as a Discrete Development Element

The defect: The Visual Impact Assessment submitted with the application addresses the wind turbines as the primary visual element of the development and makes only passing reference to the BESS compound. No dedicated photomontages have been prepared from agreed viewpoints representing the BESS compound as a discrete visual element, notwithstanding that the compound comprises twenty large battery container units, a surrounding security bund, perimeter security fencing, lamp posts, a medium voltage substation structure, and associated civil infrastructure. The container units, which are typically of the scale and appearance of intermodal shipping containers or larger purpose-built enclosures of industrial character, represent a material and permanent alteration to the visual character of the receiving landscape, which is open blanket bogland of high visual amenity. The photomontages submitted, having been prepared before the BESS was added to the project, do not represent the visual envelope of the development as now proposed. The Guidelines for Landscape and Visual Impact Assessment (GLVIA, third edition) and the Landscape and Visual Impact Assessment methodology endorsed by the Board require that all built elements of a proposed development be assessed from representative viewpoints, including viewpoints agreed with the planning authority; the omission of BESS-specific assessment from those viewpoints renders the visual impact chapter of the EIAR materially incomplete. The Board cannot make a lawful determination as to the visual impact of the development as proposed without photomontage evidence that accurately represents the totality of the proposed built form.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(c) (visual and landscape effects); Guidelines for Landscape and Visual Impact Assessment (GLVIA), 3rd ed. (Landscape Institute/IELMA, 2013); Landscape Character Assessment Guidance for England and Scotland (SNH/Countryside Agency, 2002); PDA 2000, s. 177I; Planning and Development Regulations 2001, Schedule 6; Wind Energy Development Guidelines 2006, s. 4.4.

BESS-10. Groundwater and Surface Water Contamination Risk from BESS Chemicals, Transformer Oil, and Fire Suppression Runoff on a Peatland Hydrology

The defect: The BESS compound is proposed to be constructed on or immediately adjacent to blanket bog, a peat-based substrate with a distinctive hydrological regime in which surface water and shallow groundwater are functionally interconnected and drain to receiving waterbodies in the surrounding landscape. The BESS installation introduces a significant inventory of chemically hazardous materials, including electrolyte solutions containing lithium hexafluorophosphate (LiPF₆) and organic carbonate solvents (dimethyl carbonate, ethylene carbonate), transformer dielectric oil, and fire suppression agents (which may include fluorinated surfactants or their alternatives). In the event of a thermal runaway incident, fire suppression runoff will contain a complex mixture of degradation products, combustion residues, electrolyte breakdown products, and firefighting agents, all of which are potentially acutely toxic to aquatic ecosystems and may persist in peat hydrology. The application contains no BESS-specific water quality risk assessment, no geotechnical assessment of the hydrological connectivity of the BESS compound location to adjacent waterbodies, no containment bund design statement demonstrating compliance with EA Pollution Prevention Guidance, and no assessment of groundwater vulnerability under the EPA's Groundwater Protection Scheme. The Water Framework Directive (Directive 2000/60/EC) imposes a non-deterioration obligation on all water bodies in all EU Member States; the potential for BESS-related contamination of receiving waters in a peatland catchment is a material WFD risk that has been entirely ignored in the application documents.

Sources: Water Framework Directive 2000/60/EC, Arts. 4(1)(a), 4(1)(b) (non-deterioration and achievement of good status); Groundwater Directive 2006/118/EC, Art. 6 (prevention of groundwater pollution); EPA Groundwater Protection Scheme Guidance (2011); CIRIA C736 (Containment Systems for the Prevention of Pollution); EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(a) (effects on water); PDA 2000, s. 177I.

BESS-11. BESS Lifecycle and Hazardous Waste: No Replacement Plan, No Hazardous Waste Management Plan, and No Decommissioning Bond Under EU Batteries Regulation 2023/1542

The defect: The operational life of lithium-ion battery modules in stationary BESS applications is typically ten to fifteen years, substantially shorter than the twenty-five to thirty-year consented lifespan of the associated wind farm. Accordingly, the proposed 150MW BESS will require a minimum of one complete mid-life replacement of all battery modules during the consented operational period. Decommissioned lithium-ion battery modules constitute hazardous waste within the meaning of the Waste Framework Directive 2008/98/EC and the European Union (Waste Framework) Regulations 2011 (SI 126/2011), by virtue of their content of hazardous substances including heavy metals, corrosive electrolytes, and

flammable materials. The EU Batteries Regulation 2023/1542, which entered into force on 18 February 2024, imposes lifecycle obligations on producers of industrial and stationary energy storage batteries, including end-of-life collection, take-back, and recycling obligations that will be operative throughout the life of the proposed installation. No lifecycle assessment has been submitted with the application. No mid-life battery replacement plan has been provided. No hazardous waste management plan for decommissioned battery modules has been submitted. No financial bond or equivalent security mechanism has been described to ensure that the cost of mid-life replacement and final decommissioning will be met regardless of changes in the applicant's corporate structure or financial position. The omission of these plans represents a serious and foreseeable environmental liability that the Board has a duty to address before granting consent, either by condition or by requiring additional information.

Sources: EU Batteries Regulation (EU) 2023/1542, Arts. 59–76 (extended producer responsibility and end-of-life management); Waste Framework Directive 2008/98/EC, Arts. 3(2), 17 (hazardous waste); EU (Waste Framework) Regulations 2011 (SI 126/2011); EIA Directive 2011/92/EU (as amended), Annex IV, para. 3 (description of measures to avoid, prevent, reduce, and offset effects); PDA 2000, s. 34(4)(g) (conditions regarding security and bond); PDA 2000, s. 177I.

BESS-12. No Phase 1 or Phase 2 Ecological Survey of the BESS Footprint, No BESS-Specific Appropriate Assessment Screening, and No Bat Survey of the BESS Compound

The defect: The BESS compound was added to the application after the completion of the ecological survey programme. As a consequence, no Phase 1 Habitat Survey, Phase 2 survey, or National Vegetation Classification survey has been conducted of the BESS compound footprint or of the 200-metre buffer required by best-practice guidance for ecological baseline assessment. No BESS-specific Appropriate Assessment ("AA") screening has been conducted under Article 6(3) of the Habitats Directive 92/43/EEC to determine whether the BESS compound's construction, operation, and decommissioning could, alone or in combination with other plans or projects, adversely affect the integrity of Lackan Saltmarsh and Kilcummin Head SAC (Site Code 001770) or Killala Bay and Moy Estuary SPA (Site Code 004037). No bat survey of the BESS compound has been conducted that is compliant with the Bat Conservation Ireland (BCI) Bat Survey Guidelines for Wind Energy Developments (2026 edition), notwithstanding that the compound is located in or adjacent to blanket bog habitat that may provide foraging and commuting corridors for bat species, including *Rhinolophus hipposideros* (Lesser Horseshoe Bat, Annex II). The permanent artificial light at night from the BESS compound's security lighting introduces a novel light source that will alter the behaviour of light-sensitive bat species in the immediate area throughout the operational life of the installation; this effect has not been assessed. The applicant cannot lawfully rely upon ecological surveys conducted before the BESS was introduced to demonstrate compliance with the EIA Directive or the Habitats Directive in respect of a component that was at no point within the scope of those surveys.

Sources: Habitats Directive 92/43/EEC, Arts. 6(3), 6(4), 12; Birds Directive 2009/147/EC, Art. 5; Bat Conservation Ireland, Bat Survey Guidelines for Wind Energy Developments (2026 ed.); EIA Directive 2011/92/EU (as amended), Annex IV, paras. 2, 5(d); NPWS Guidelines on the Preparation of NIS for Appropriate Assessment (2009); PDA 2000, s. 177I; People Over Wind [C-323/17].

BESS-13. Shadow Flicker and Glint/Glare from BESS Container Surfaces: Unassessed Impact at Receptor H45

The defect: The twenty battery container units comprising the BESS installation have large, flat, external metal surfaces that, depending on their orientation, finish, and the angle of solar incidence, may generate specular reflection (glint) or diffuse glare at proximate receptors. The container units are sited with Receptor H45 located to the north at a distance of 512 metres; the interaction of low winter sun angles from the south with reflective southward-facing surfaces could generate glare events directed towards H45. In addition, if any photovoltaic panels are installed on the container rooftops as part of the thermal management or auxiliary power system, those panels constitute an additional source of specular reflectance. The application contains no glint and glare assessment specific to the BESS compound, no modelling of potential glare events at H45, and no assessment of the frequency, duration, or intensity of any such events across the annual solar cycle. Photovoltaic glint and glare assessment methodology is well established in the environmental assessment literature and is routinely required for solar energy developments; the same methodology is applicable to BESS compounds with reflective container surfaces. The Board cannot properly assess the amenity impact of the BESS on residents at H45 without that assessment, and must require the applicant to provide it, or treat the absence of that information as a material deficiency in the EIAR.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(b) (light, radiation, and visual amenity effects); Wind Energy Development Guidelines, DoECLG 2006, Section 4.5 (shadow flicker); Sandia National Laboratories, Glare Analysis Methodology for Solar Facilities (2013, updated); PDA 2000, s. 177i; Planning and Development Regulations 2001, Schedule 6.

BESS-14. Electromagnetic Interference from BESS Inverters: No EMF/EMI Assessment and No Assessment of Impact on Domestic Infrastructure at H45

The defect: High-power inverters of the type required for a 150MW BESS generate significant electromagnetic interference (EMI) across a broad frequency range as a function of their switching operation (typically at frequencies from several kilohertz to several megahertz). In addition, the underground high-voltage cables connecting the BESS to the grid connection point, and the 110kV substation proposed at 486 metres from Receptor H45, generate power-frequency (50Hz) electric and magnetic fields (EMF). The application contains no EMF or EMI assessment for the BESS inverters, the associated LV/MV cable routes, or the HV substation. No assessment has been made of the potential for BESS inverter EMI to interfere with domestic electronics, radio reception, telemetry systems, or private bore well monitoring equipment at H45. Council Recommendation 1999/519/EC on the limitation of public exposure to electromagnetic fields, and the ICNIRP Guidelines (2020 edition), provide reference levels applicable to residential exposure; compliance with those reference levels in respect of the combined EMF contribution of the BESS, the cable infrastructure, and the substation at Receptor H45 has not been demonstrated. The objector notes that private water supply bore well monitoring equipment at H45 may be susceptible to EMI from nearby high-power inverters, and that interference with such equipment could constitute a material impact on the amenity and safety of the property that has not been considered.

Sources: Council Recommendation 1999/519/EC (limitation of public exposure to EMF); ICNIRP Guidelines on Limiting Exposure to Electromagnetic Fields (2020); Directive 2014/30/EU (Electromagnetic Compatibility Directive); EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(b); BS EN 50341-1:2013 (Overhead electrical lines); PDA 2000, s. 177i.

BESS-15. BESS Construction Traffic Not Separately Assessed: Abnormal Load Movements for Battery Containers and Transformer Units on a Bridge and Road Network Already Assessed to Capacity for Turbine Deliveries

The defect: The BESS component was introduced into the application after the preparation of the Construction Traffic Management Plan and the Transport Assessment lodged with the application. Those documents accordingly assess road and bridge load impacts only in respect of the abnormal loads required for wind turbine delivery — principally tower sections, nacelles, and rotor blades — and do not assess the additional abnormal load movements required to deliver twenty battery container units (each potentially of forty-foot length and substantial axle weight), multiple medium and high-voltage transformer units, and associated civil infrastructure plant. The assessment of the structural capacity of bridges, the geometric constraints of road junctions, and the permissible axle weight loadings on public roads in the project area must be conducted on the basis of the totality of abnormal loads that will use those routes, not merely the turbine-delivery subset. The road network and bridge infrastructure of north County Mayo is of limited capacity, and the cumulative effect of multiple overlapping abnormal load movements has not been assessed. Additionally, the potential for scheduling conflicts between turbine delivery and BESS delivery convoys on single-carriageway roads has not been addressed. The Board must require the submission of an updated and comprehensive Transport Assessment addressing the BESS construction traffic programme as a discrete and additive input to the route assessment.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(a) (transport effects); Roads Act 1993 (Ireland), ss. 54, 55 (abnormal load permits); Mayo County Development Plan 2022–2028, Transport Policy; Planning and Development Regulations 2001, Article 214; PDA 2000, s. 177i; Transport Infrastructure Ireland, Guidelines for Traffic and Transport Assessments (2014).

BESS-16. 110kV Substation at 486 Metres from H45: Unassessed Transformer Hum, EMF Exposure, and Visual Impact as a Discrete Structure

The defect: The 110kV substation proposed as part of the BESS grid connection infrastructure is located at approximately 486 metres from Receptor H45, making it one of the nearest major industrial structures to the objector's dwelling. A 110kV grid connection substation of the type proposed incorporates large power transformers that generate a characteristic low-frequency hum at 100Hz (twice the fundamental power frequency) and its harmonics, audible at considerable distances in quiet rural environments such as the project area. No noise assessment specific to the substation's transformer hum has been conducted, and no prediction of the resultant noise level at H45 has been provided. The

substation structures, including gantries, switchgear, control building, perimeter security fencing, and transformer plinth, constitute a significant visual element of the industrial development, visible from H45 across open bogland; no dedicated visual impact assessment or photomontage addresses the substation compound as a distinct visual receptor. The cumulative EMF contribution of the 110kV substation to the power-frequency magnetic field at H45, in combination with the BESS inverter EMI and underground cable routes, has not been assessed against ICNIRP reference levels. The Board must require the applicant to address these omissions by way of a dedicated substation noise assessment, photomontage from the direction of H45, and a combined EMF exposure assessment for the substation and BESS components.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, paras. 5(b), 5(c); Council Recommendation 1999/519/EC (EMF reference levels); BS 4142:2014+A1:2019 (tonal noise assessment); ICNIRP 2010 Guidelines on Low-Frequency EMF; EirGrid Grid Code (noise requirements for grid connection infrastructure); PDA 2000, ss. 143, 177I.

BESS-17. Undisclosed Commercial Dependency: Constant Energy MOU with CPH2 (Clean Power Hydrogen plc) for the Killala Energy Hub as a Gateway Condition for a Publicly Listed Company

The argument: Constant Energy Limited has entered into a Memorandum of Understanding dated 16 June 2025 with CPH2 Limited, trading as Clean Power Hydrogen plc, a company listed on the AIM market of the London Stock Exchange (ticker: CPH2). Under the terms of that MOU, Constant Energy contemplates the initial purchase of five 1MW MFE220 hydrogen electrolyser units from CPH2, with discussions to proceed toward a Sale and Purchase Agreement and, in the longer term, toward up to 200MW of electrolyser capacity at the Killala Energy Hub in County Mayo. The Killala Energy Hub is described in the MOU as capturing curtailed renewable energy from wind and solar generation in the vicinity — which must, in the context of Constant Energy's development pipeline, refer principally to the energy output and curtailed energy of the Tirawley Wind Farm. The grant of planning permission for the Tirawley Wind Farm, and in particular for the BESS component, is therefore a commercially material gateway condition for the fulfilment of Constant Energy's obligations under the CPH2 MOU and for the commercialisation pathway of a publicly listed company that has made market disclosures to investors regarding this commercial relationship. None of this information has been disclosed anywhere in the planning application. The Board has a legitimate interest in understanding the full commercial and structural context of the application it is asked to determine; material commercial dependencies that bear upon the applicant's motivations and financial structure are relevant to the Board's assessment of planning merits and to the public interest in full and transparent disclosure.

Sources: CPH2 Ltd / Constant Energy MOU, announced 16 June 2025 (cph2.com/news/cph2-and-constant-energy-sign-mou); FCA Disclosure Guidance and Transparency Rules (UK AIM rules applicable to CPH2 as a listed company); PDA 2000, s. 172(1)(c) (obligation on applicant to provide full information); An Coimisiún Pleanála Procedural Code, s. 6 (transparency in planning applications); Planning and Development Regulations 2001, Article 214 (requirement for complete application).

BESS-18. Battery Chemistry Not Specified: Fire Risk Profile, Thermal Runaway Characteristics, Toxic Gas Composition, and COMAH Threshold Analysis Cannot Be Verified

The defect: The application does not specify the battery chemistry to be deployed in the 150MW BESS. The two principal chemistries in commercial use for utility-scale stationary BESS are lithium iron phosphate (LFP) and lithium nickel manganese cobalt oxide (NMC). These chemistries have materially different fire risk profiles: NMC cells undergo thermal runaway at significantly lower temperatures than LFP cells (typically in the range of 170–210°C compared with 270°C+), produce different toxic gas profiles during thermal runaway, and present different ignition, propagation, and suppression characteristics. The Seveso III/COMAH threshold assessment, the fire risk assessment, the toxic gas dispersion modelling, and the emergency response planning must each be tailored to the specific chemistry deployed; without knowledge of the chemistry, none of those assessments can be conducted or verified. The absence of battery chemistry specification also means that the EU Batteries Regulation 2023/1542 compliance pathway cannot be assessed, as the applicable obligations — including carbon footprint declaration, recycled content requirements, and end-of-life collection obligations — differ by chemistry and application category. The Board cannot grant planning permission for a 150MW industrial hazardous installation without knowing what hazardous materials it will contain; the omission of battery chemistry from the application is a fundamental deficiency that precludes the preparation of a lawful and complete EIAR.

Sources: NFPA 855 (2023), ss. 4.1, 4.3 (chemistry-specific requirements); UL 9540A Test Method (chemistry-specific thermal runaway propagation tests); Seveso III Directive 2012/18/EU, Annex I (threshold quantities by substance classification); EU Batteries Regulation 2023/1542, Arts. 7 (carbon footprint), 8 (recycled content), 59 (EPR); EIA Directive 2011/92/EU (as amended), Annex IV, para. 2(a) (description of hazardous materials); PDA 2000, s. 177I.

BESS-19. No BESS Decommissioning Plan and No Financial Security for Compound Removal and Site Remediation

The defect: The application contains no decommissioning plan specific to the BESS compound and no financial bond, parent company guarantee, or other security mechanism to ensure that the BESS compound will be removed and the site remediated at the end of its operational life or in the event of the applicant's insolvency. The BESS compound, comprising twenty battery containers, a 110kV substation, perimeter bunds, access roads, drainage infrastructure, and civil engineering works on peatland, represents a substantial liability for future removal and site restoration. Unlike wind turbine foundations, which may in certain circumstances be left in situ, battery containers and associated chemical infrastructure must be fully removed and properly decontaminated on decommissioning. Section 34(4)(g) of the Planning and Development Act 2000 expressly empowers the Board to attach conditions requiring the provision of security for the satisfactory completion of the proposed development, including demolition and restoration. The failure to address decommissioning in the application is particularly acute given the potential for the BESS compound to reach the end of its economic life at a different time from the wind turbines, and the well-documented risk in the renewable energy sector of special purpose vehicle companies becoming insolvent before decommissioning obligations are fulfilled. The Board should require, as a condition of any consent granted, that a comprehensive BESS decommissioning plan and a ring-fenced decommissioning bond of sufficient value be lodged with Mayo County Council within twelve months of the commencement of BESS construction.

Sources: PDA 2000, s. 34(4)(g) (conditions regarding security and completion); Decommissioning of Offshore Installations and Pipelines Act 1995 (analogous domestic precedent for decommissioning bonds); EU Batteries Regulation 2023/1542, Arts. 59–76; Waste Framework Directive 2008/98/EC, Arts. 13, 17; IDA Ireland, Good Practice Guidance for Site Remediation (2020); Mayo County Development Plan 2022–2028, Wind Energy Policy WE-P-4 (decommissioning requirements).

BESS-20. Cumulative Impact of the BESS Installation with Glenora Wind Farm and Other North Mayo Developments Not Assessed: Grid Infrastructure, Road Network, Visual Impact, and Cumulative Noise from Multiple BESS Installations

The defect: An Coimisiún Pleanála granted consent for the Glenora Wind Farm (22 turbines and an associated BESS installation) in May 2026; that development is located approximately seven kilometres from the Tirawley project in north County Mayo. The EIAR for the Tirawley project does not assess the cumulative impact of two large BESS installations operating simultaneously in the same landscape and on the same grid network. Specifically, no cumulative noise assessment has been conducted combining the BESS operational noise from Tirawley and Glenora; no cumulative visual impact assessment addresses the cumulative industrial character introduced by two major BESS compounds in the north Mayo bogland landscape; no assessment has been made of the cumulative grid infrastructure requirements (cable routes, substations, grid reinforcement) of both BESS installations; and no cumulative traffic assessment addresses the combined abnormal load deliveries for both projects. The EIA Directive requires the EIAR to assess the cumulative effects of the proposed development with other existing or approved projects; the grant of planning consent for Glenora in May 2026 means that Glenora must now be treated as an approved project within the cumulative assessment baseline. Further relevant developments in the north Mayo/Sligo corridor — including Oweninny Phases 1, 2, and 3, Sheskin South, Keerglen, Clydagh, Firlough, and Tullynamoyle — must also feature in the cumulative BESS assessment. The failure to conduct a cumulative assessment that incorporates the most recently consented development in the same landscape is a fundamental breach of the EIA Directive requirements.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(a) (cumulative effects); EIA Directive 2014/52/EU, Recital 7 (cumulative effects); Case C-142/07 Ecologistas en Acción-CODA v. Ayuntamiento de Madrid [2008] ECR I-6097 (cumulative assessment obligation); Planning and Development Regulations 2001, Schedule 6; Mayo County Development Plan 2022–2028, Wind Energy Policy; PDA 2000, s. 177I.

Scope: This appendix sets out twelve grounds of objection addressing the applicant's bat survey methodology and conclusions. Prepared by the Objector in his capacity as a B.Sc. (Hons.) Animal Ecology graduate (University of Aberdeen), based on detailed review of EIAR Appendix 6.2 (Bat Survey Report, Éire Ecology Environmental Consultants, April 2026) against BCI Guidelines (2026 edition), SNH/NatureScot 2021, EUROBATS (2015), and NIEA/JNCC Good Practice Guidelines (2023). These grounds form part of this submission.

Key findings:

BAT-1. Temperature Threshold Non-Compliance: April 2026 Surveys Conducted Below the 10°C Mandatory Minimum — All Sub-Threshold Data Must Be Excluded or Independently Reviewed

The defect: The Bat Conservation Ireland (BCI) Bat Survey Guidelines for Wind Energy Developments (2026 edition), the Scottish Natural Heritage/NatureScot Bat Survey for Wind Turbine Developments guidance (2021 edition), and the Northern Ireland Environment Agency (NIEA) Bat Surveys for Professional Ecologists (2023 edition) all prescribe a mandatory minimum ambient temperature threshold of 10°C for the conduct of active and static bat detector survey effort that is to be used as the basis of a pre-construction baseline assessment. This threshold is not a recommended best-practice standard; it is a mandatory methodological condition, the rationale for which is that bat activity is substantially and unpredictably suppressed at temperatures below 10°C, rendering sub-threshold data unrepresentative of actual bat activity at the location during periods of meteorological conditions that will coincide with turbine operation. Surveys conducted during the April 2026 deployment period recorded ambient temperatures of 8°C, which falls below the mandatory minimum. All detector nights during which ambient temperature fell below 10°C must be excluded from the quantitative activity baseline for the affected turbine locations. The applicant has provided no analysis of how much of the April 2026 survey dataset was collected at sub-threshold temperatures, has not identified the specific detector locations and nights affected, and has not assessed the impact of that exclusion on the adequacy of the survey effort. The Board cannot rely upon a bat survey dataset of unknown methodological integrity as the basis for an Appropriate Assessment or for the approval of an EIAR chapter on bat ecology; replacement surveys conducted in full compliance with the BCI 2026 temperature requirements must be submitted before determination.

Sources: Bat Conservation Ireland, Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 3.2 (temperature threshold); NatureScot/SNH Bat Survey for Wind Turbine Developments (2021 ed.), p. 12; NIEA Bat Surveys for Professional Ecologists (2023 ed.), para. 4.3; Habitats Directive 92/43/EEC, Arts. 6(3), 12; NPWS Guidelines on the Preparation of NIS for Appropriate Assessment (2009); PDA 2000, s. 177I.

BAT-2. Insufficient Survey Effort and Spatial Coverage: Thirteen Static Detectors for Sixteen Turbine Locations, With No Confirmation that Peak Activity Months Were Adequately Covered

The defect: The bat survey methodology deployed for the Tirawley project utilised thirteen static autonomous bat detectors across a development comprising sixteen turbine locations. Accordingly, a minimum of three turbine locations had no dedicated detector coverage; it is not established from the information submitted which turbine locations were unmonitored, whether those locations represent higher-risk positions (for example, locations proximate to bog edge habitats, hedgerows, or waterbody margins), or how the absence of dedicated coverage at those locations was accounted for in the activity assessment. The BCI 2026 guidelines recommend, at minimum, one static detector per turbine location during the full peak activity period, with additional detectors at locations identified as likely to support elevated bat activity. The peak activity months for most bat species in the Irish context are June, July, and August; the application documents do not confirm that continuous static detector deployment was maintained across all covered turbine locations throughout those three months. The applicant must provide a complete deployment schedule for each static detector, including GPS coordinates, deployment start and end dates, number of operational detector nights, percentage of nights with valid recordings, and a station-by-station summary of activity levels. Without that information, the Board cannot assess whether the survey effort was adequate to characterise the bat activity baseline at the development footprint, and cannot rely upon the conclusions of the bat chapter as a sound evidential basis for any planning decision or Appropriate Assessment.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 3.4 (static detector deployment); EUROBATS, Guidelines for Consideration of Bats in Wind Energy Developments (2015 ed.); NatureScot Bat Survey for Wind Turbine Developments (2021); EIA Directive 2011/92/EU (as amended), Annex IV, para. 2 (description of baseline); NPWS Guidelines on Appropriate Assessment (2009); PDA 2000, s. 177I.

BAT-3. Baseline Data Currency: 2022/2023 Survey Data Collected for a Development of Up to Forty-Three Turbines Cannot Reliably Represent Current Conditions at the Revised Sixteen-Turbine Layout

The defect: A significant proportion of the bat activity baseline data underpinning the EIAR bat ecology chapter was collected during survey periods in 2022 and 2023, in some cases more than three years before the date of this planning application. That earlier survey programme was designed to inform a development comprising up to forty-three turbines across a fundamentally different spatial layout, with different turbine locations, hub heights, rotor diameters, and infrastructure routing. The revised development as now proposed comprises sixteen turbines; it cannot be assumed that bat activity data collected at locations that are not represented in the current layout, or collected across a spatial configuration substantially different from the current application, accurately characterises the bat activity baseline at the sixteen specific turbine locations now proposed. Standard practice in bat survey methodology, as reflected in the BCI 2026 guidelines and the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment, requires that baseline survey data should not be more than three years old at the date of the planning submission, and that data collected for a materially different project configuration must be treated as background context rather than project-specific baseline. The applicant must submit a complete, currency-compliant baseline dataset collected specifically for the sixteen-turbine layout as now proposed, with all detector locations directly referenced to the current turbine coordinates and infrastructure footprint.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 2.1 (survey currency); CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018), para. 3.2; EIA Directive 2011/92/EU (as amended), Annex IV, para. 2 (current state of the environment); NatureScot Bat Survey for Wind Turbine Developments (2021), p. 8; NPWS Guidelines on the Preparation of NIS for Appropriate Assessment (2009), para. 4.1.

BAT-4. Lesser Horseshoe Bat (*Rhinolophus hipposideros*): Annex II and IV Species Recorded, Standard Static Detectors Inadequate, No Roost Searches Conducted, Article 6(3) Assessment Required

The defect: The survey data indicates the presence of Lesser Horseshoe Bat (*Rhinolophus hipposideros*) within or proximate to the project footprint. This species is listed on Annex II and Annex IV of the Habitats Directive 92/43/EEC, conferring upon it the highest level of protection in EU nature conservation law, and it is a qualifying interest of multiple designated sites in the west of Ireland. *R. hipposideros* is a low-intensity echolocator that emits constant-frequency calls in the 106–112 kHz range at very low amplitude; standard omnidirectional static detectors deployed on automated recording programmes are particularly poorly suited to the reliable detection and identification of this species, resulting in systematic under-recording of its activity in survey datasets. The survey programme as described does not include targeted roost characterisation surveys for *R. hipposideros* at buildings, structures, or underground features within the project footprint or within the 5-kilometre survey radius recommended by BCI 2026 for Annex II bat species. The lesser horseshoe bat's high fidelity to roost sites and its use of linear landscape features (hedgerows, riparian margins, bog drains) as commuting routes mean that its vulnerability to turbine collision and roost disturbance cannot be assessed without dedicated roost searches and an assessment of commuting routes relative to the turbine swept areas. Following the CJEU's judgment in *People Over Wind* [C-323/17], the Board cannot rely on proposed mitigation measures when screening for the requirement for Appropriate Assessment; the presence of *R. hipposideros* mandates a full Article 6(3) assessment that cannot be based on an evidentially incomplete survey record.

Sources: Habitats Directive 92/43/EEC, Arts. 6(3), 12; BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), paras. 4.2, 5.3 (Annex II species protocols); NPWS Conservation Status Assessment for *Rhinolophus hipposideros* (2019); EUROBATS Guidelines (2015 ed.); *People Over Wind* and *Peter Sweetman v. Coillte* [C-323/17] CJEU (2018); *Sweetman v. An Bord Pleanála* [C-258/11] CJEU (2013).

BAT-5. Nathusius' Pipistrelle (*Pipistrellus nathusii*): Migratory Species Under EUROBATS, Atlantic Coast Flyway, No Spring/Autumn Migration Window Coverage Demonstrated at All Turbine Locations

The defect: Nathusius' Pipistrelle (*Pipistrellus nathusii*) has been recorded in the survey data. This species is among the longest-range migratory bats in Europe, undertaking documented trans-continental movements of up to 2,000 kilometres along Atlantic and continental coastlines between summer breeding grounds in north-eastern Europe and winter roost

sites in western Europe. Under the Agreement on the Conservation of Populations of European Bats (EUROBATS), *P. nathusii* is specifically identified as a species for which wind turbine collision risk during migration periods is of particular conservation concern. The west coast of Ireland, and north County Mayo in particular, represents a documented migratory corridor for this species, as established by the GREENBAT project data and ring-recovery records. The spring migration window (March to May) and autumn migration window (August to October) represent the periods of highest collision risk; the survey documentation does not demonstrate that continuous static detector deployment was maintained at all sixteen turbine locations throughout both migration windows. The Board is requested to require the applicant to provide a station-by-station deployment schedule confirming whether migration window coverage is complete at all turbine locations, and to commission independent analysis of the *P. nathusii* records within the dataset to assess their temporal distribution in relation to migration phenology. The adequacy of any post-construction adaptive management protocol for this species cannot be assessed without that information.

Sources: EUROBATS, Guidelines for Consideration of Bats in Wind Energy Developments (2015 ed.), para. 4.3 (migratory species); Agreement on the Conservation of Populations of European Bats (EUROBATS), Annex I; BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 4.4; GREENBAT Project Final Report (2020); Habitats Directive 92/43/EEC, Art. 12; Birds Directive 2009/147/EC, Art. 5.

BAT-6. Absence of At-Height Monitoring: Entire Survey Programme Conducted at Ground Level, Systematically Underestimating Activity at Rotor-Swept Height

The defect: The entirety of the pre-construction bat survey programme for the Tirawley project was conducted using ground-level static detectors. The proposed turbines have hub heights of approximately 90 metres and tip heights of approximately 135 metres; the rotor-swept zone, within which bat collision risk is realised, occupies an altitude band from approximately 45 metres to 135 metres above ground level. Scientific research consistently demonstrates that bat activity at rotor-swept altitudes cannot be reliably predicted from ground-level static detector data; species that commute and forage primarily at altitude — including *Nathusius' Pipistrelle*, *Soprano Pipistrelle* in certain conditions, and migratory bats more generally — may be substantially underestimated by ground-level monitoring. The BCI 2026 guidelines, the EUROBATS 2015 guidelines, and the NatureScot/SNH 2021 guidance all recommend the deployment of at-height monitoring (using nacelle-mounted or meteorological mast-mounted detectors) at wind energy developments where rotor-swept altitude activity cannot otherwise be adequately characterised. The absence of any at-height monitoring from a 135-metre tip-height development in a landscape where migratory bat species have been recorded constitutes a methodological gap of the highest significance, rendering the collision risk assessment unreliable and incapable of forming the basis of a lawful Appropriate Assessment conclusion or a sound EIA assessment of effects on bats. The applicant must be required to demonstrate why at-height monitoring was not deployed, or to submit a programme for at-height post-construction monitoring with pre-specified curtailment triggers.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 3.6 (at-height monitoring); EUROBATS Guidelines for Consideration of Bats in Wind Energy Developments (2015 ed.), para. 4.1; NatureScot Bat Survey for Wind Turbine Developments (2021), pp. 19–21; Bat Conservation Trust, Good Practice Guidelines 4th edition (2023); EIA Directive 2011/92/EU (as amended), Annex IV, para. 2; NPWS Guidelines on NIS (2009).

BAT-7. Post-Construction Monitoring Deficiencies: Three-Year Programme Below Minimum Standard, Inadequate Search Frequency, No Mortality Thresholds, No Independent Verification

The defect: The post-construction monitoring programme proposed in the application provides for a three-year mortality search programme following commissioning of the wind farm. This falls below the five-year minimum programme recommended by both the BCI 2026 guidelines and the EUROBATS 2015 guidelines as necessary to characterise post-construction bat mortality with statistical confidence, given the inter-annual variability in bat activity driven by weather, migration patterns, and population fluctuations. The proposed programme does not specify the frequency of mortality searches; the BCI 2026 guidelines prescribe twice-weekly searches during the active season (broadly April to October) as the minimum frequency necessary to detect carcasses before scavenging removal. No detection efficiency correction factors or searcher efficiency trial protocols are described, meaning that raw carcass counts cannot be corrected to estimate true mortality. No pre-determined mortality thresholds or trigger values have been defined that would automatically activate enhanced monitoring, turbine-specific curtailment, or a review of the operational protocol. No independent ecological verification of mortality searches has been proposed; all searches are apparently to be

conducted by the applicant's own ecologists. The Board should require, as a condition of any consent granted, a five-year post-construction monitoring programme compliant with BCI 2026 in all respects, with independently verified mortality searches, pre-specified trigger thresholds for curtailment, and annual reporting to NPWS and An Coimisiún Pleanála.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), paras. 6.2–6.5 (post-construction monitoring); EUROBATs Guidelines (2015 ed.), para. 5; Huso et al. (2012), 'An estimator of wildlife fatality from observed carcasses', *Environmetrics* 23(4); Strickland et al. (2011), 'Causes and consequences of biased carcass searches'; PDA 2000, s. 34(4)(i) (conditions for post-development monitoring); EIA Directive 2011/92/EU (as amended), Art. 8a(1)(d).

BAT-8. Landowner Access Deficiencies: No Schedule of Access Agreements, Formal Notice That No Access Was Sought or Granted for Folio MY85163F

The defect: A comprehensive and lawfully conducted bat survey programme requires physical access to the land within and surrounding the development footprint to deploy static detectors, conduct walked transects, and carry out roost searches. The application contains no schedule of landowner access agreements confirming that all landowners of property within the survey area granted their consent to entry by the applicant's ecologists. The objector, Liam Donoghue, formally places An Coimisiún Pleanála on notice that no request for access to Folio MY85163F was received by him at any time, and that no consent for entry by the applicant or the applicant's ecological consultants was granted. The objector's lands fall within the area that should have been surveyed as part of a comprehensive bat ecology baseline programme for a development site of this scale, and the absence of any access request demonstrates that the survey coverage was not designed to be spatially comprehensive. The Board is accordingly requested to require the applicant to submit a complete schedule of all landowner access agreements, identifying each landowner and folio number, the dates on which access was requested, and the dates on which access was granted. Where access was not obtained, the applicant must demonstrate how the survey coverage gap affected the baseline assessment and what steps were taken, if any, to obtain information about bat activity on unaccess parcels. The integrity of the entire survey dataset is called into question by this deficiency.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 2.3 (landowner access requirements); Occupiers' Liability Act 1995 (Ireland), s. 4; Land and Conveyancing Law Reform Act 2009, s. 100; EIA Directive 2011/92/EU (as amended), Annex IV, para. 2 (adequacy of baseline); PDA 2000, s. 172(1)(c); An Coimisiún Pleanála Procedural Guidelines (2024).

BAT-9. No BESS Compound Bat Survey: Surveys Predated BESS Introduction, Permanent ALAN from Security Lighting Not Assessed for Any Bat Species

The defect: As set out in BESS-1 and BESS-12, the BESS compound was introduced into the application after the conclusion of the bat survey programme. The consequence is that no bat survey compliant with BCI 2026 has been conducted at the BESS compound location or within the 200-metre buffer recommended for compound-level ecological assessment. The permanent artificial light at night (ALAN) that will be generated by the BESS compound's security lighting throughout its operational life represents a novel and significant ecological factor that will affect bat behaviour in the immediate area. Many bat species, including the pipistrelle species recorded on this site, are demonstrated in the scientific literature to avoid artificial light, and the creation of a permanently illuminated compound in otherwise dark blanket bog habitat may fragment bat commuting and foraging routes, displace individual bats from habitual foraging areas, and alter predator-prey dynamics through the concentration of light-attracted insects. These effects are entirely unassessed in the EIAR. The Habitats Directive Article 12 strict protection regime for all Annex IV bat species applies to disturbance of those species and deterioration or destruction of breeding sites and resting places; an artificial light source of sufficient intensity and geographic extent to disrupt foraging behaviour may, on the specific facts of a site, constitute prohibited disturbance under Article 12(1)(b). The Board must require the applicant to submit a dedicated BESS compound bat survey and a lighting impact assessment for bats before this application is determined.

Sources: BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), paras. 3.1, 5.1; Habitats Directive 92/43/EEC, Art. 12(1)(b) (strict protection against disturbance); Rydell et al. (2017), 'Bats and Their Insect Prey at Streetlights', in *Artificial Light at Night as a New Threat to Pollination*; Stone et al. (2009), 'Street lighting disturbs commuting bats', *Current Biology* 19(13); EIA Directive 2011/92/EU (as amended), Annex IV, paras. 2, 5(d).

BAT-10. Biodiversity Enhancement and Management Plan Deficiencies: Compensation Proposed in Degraded Quarry, No Bat-Specific Provisions, No Legal Enforcement Mechanism

The defect: The Biodiversity Enhancement and Management Plan (BEMP) submitted with the application proposes the management of a degraded, abandoned quarry as the primary compensatory habitat provision for biodiversity impacts arising from the wind farm development. This is fundamentally misconceived as a compensatory measure: a degraded quarry does not provide a functional ecological equivalent of the blanket bog, bog edge, wet heath, and rushland habitats that will be impacted by the development footprint, access roads, and associated infrastructure. No baseline ecological survey of the proposed BEMP area has been submitted to establish its current ecological status, its potential for enhancement, or the species assemblages it currently supports. The BEMP contains no bat-specific provisions, notwithstanding that multiple bat species, including an Annex II species, have been recorded in the project area and that the loss and fragmentation of blanket bog foraging and commuting habitat is a direct consequence of the development. No independent ecological oversight structure has been proposed for the BEMP, such as an Ecological Clerk of Works or an independent ecologist with a verified mandate. There is no Section 47 Agreement under the Planning and Development Act 2000, or equivalent legally enforceable mechanism, to ensure that the BEMP will be implemented and maintained throughout the operational life of the development; conditions attached to a planning permission are enforceable by the planning authority, but without a legal agreement the Board cannot be satisfied that long-term ecological management will be delivered.

Sources: Habitats Directive 92/43/EEC, Art. 6(4) (compensatory measures must be adequate); NPWS Guidance on Compensatory Measures under the Habitats Directive (2010); BCI Bat Survey Guidelines for Wind Energy Developments (2026 ed.), para. 7.1 (mitigation hierarchy); PDA 2000, s. 47 (planning agreements); CIEEM Guidelines for Ecological Impact Assessment (2018), para. 10.2; EIA Directive 2011/92/EU (as amended), Annex IV, para. 3.

BAT-11. Appropriate Assessment Implications: Proximity to Lackan Saltmarsh and Kilcummin Head SAC and Killala Bay/Moy Estuary SPA — NIS Premised on Inadequate Survey Data Cannot Form the Basis of a Lawful AA

The argument: The development site is located in close proximity to Lackan Saltmarsh and Kilcummin Head SAC (Site Code 001770) and Killala Bay and Moy Estuary SPA (Site Code 004037). Bat species that use saltmarsh and estuarine habitats for foraging — including the Lesser Horseshoe Bat, which forages at high densities over wetland and coastal margins — regularly commute between inland roost sites and coastal foraging areas along river valleys and bog drains, and the Tirawley development footprint occupies part of the landscape matrix through which those commuting routes pass. The Natura Impact Statement (NIS) submitted with the application is premised upon survey data that is, for the reasons set out in BAT-1 through BAT-10, methodologically deficient, temporally outdated, spatially incomplete, and inadequate to characterise the use of the site and its surroundings by Annex II bat species. Following the CJEU's binding judgment in *People Over Wind and Peter Sweetman v. Coillte* [C-323/17], the Board cannot, when conducting an Appropriate Assessment under Article 6(3) of the Habitats Directive, rely upon proposed mitigation measures to screen out the requirement for an AA, or to reach a conclusion of no adverse effect on integrity, where the underlying evidential basis is inadequate. An Appropriate Assessment based on flawed survey data does not constitute the rigorous scientific analysis required by the CJEU in *Sweetman v. An Bord Pleanála* [C-258/11] (2013). The Board must, before proceeding to determine this application, satisfy itself that the bat survey data underpinning the NIS meets the required standard of completeness and methodological integrity, and must require replacement surveys if it does not.

Sources: Habitats Directive 92/43/EEC, Arts. 6(3), 6(4), 12; *People Over Wind and Peter Sweetman v. Coillte* [C-323/17] CJEU (2018); *Sweetman v. An Bord Pleanála* [C-258/11] CJEU (2013); *Holohan v. An Bord Pleanála* [C-461/17] CJEU (2018); NPWS Site Synopsis: Lackan Saltmarsh and Kilcummin Head SAC (001770); NPWS Site Synopsis: Killala Bay/Moy Estuary SPA (004037).

BAT-12. Survey Independence: All Ecological Surveys Commissioned by the Applicant — Request for Independent Peer Review Before Determination

The argument: The entirety of the bat ecology surveys and associated assessment work was commissioned and funded by Constant Energy Limited, the applicant. No independent peer review of the bat survey methodology, the raw acoustic data, the species identification and data analysis, or the collision risk assessment has been conducted by an ecologist with no financial or professional connection to the applicant or its consultants. This is a systemic issue in large-scale renewable energy planning in Ireland: the applicant commissions its own environmental consultants, whose findings are then submitted as expert evidence to the planning authority, with no independent verification of the quality of the underlying data. The objector, who holds a B.Sc. (Hons.) in Animal Ecology, is qualified to raise this methodological

concern, and formally requests that An Coimisiún Pleanála exercise its powers under section 134 of the Planning and Development Act 2000 to commission an independent bat ecology peer review by an appropriately qualified ecologist with no connection to Constant Energy, its directors, or its retained consultants, or alternatively to submit the bat ecology chapter and underlying acoustic data to the National Parks and Wildlife Service for formal peer review before this application is determined. This is not an unprecedented request: both An Bord Pleanála and its successor have in appropriate cases required independent ecological review of contentious survey data, and the scale of the deficiencies identified in BAT-1 through BAT-11 is such that a fully independent review is warranted before the Board is asked to make a determination.

Sources: PDA 2000, s. 134 (Board's power to obtain independent reports and advice); An Coimisiún Pleanála Procedural Guidelines (2024), para. 8 (expert evidence and independent review); EIA Directive 2011/92/EU (as amended), Art. 6 (quality of EIA); NPWS role under Wildlife Acts 1976–2023; Habitats Directive 92/43/EEC, Art. 6(3) (best scientific knowledge); Waddenzee [C-127/02] CJEU (2004) (requirement for complete, precise and definitive findings of no AAEI).

Appendix F Migratory Birds and Bats — North Mayo Atlantic Flyway Cumulative Impact

Scope: This appendix sets out six grounds of objection addressing the failure to assess the individual and cumulative impact of this development on migratory species using the north Mayo Atlantic flyway — one of Ireland's most ecologically significant migration corridors. Prepared by the Objector in his capacity as a B.Sc. (Hons.) Animal Ecology graduate (University of Aberdeen). These grounds form part of this submission.

Key findings:

MIG-1. North Mayo Atlantic Flyway: Development Site Within 1km of Killala Bay/Moy Estuary SPA — Designated Migratory Species Must Overfly the Project Footprint

The argument: The proposed Tirawley Wind Farm site is located within approximately one kilometre of Killala Bay/Moy Estuary SPA (Site Code 004037), a site designated under the Birds Directive 2009/147/EC for its internationally important populations of migratory and wintering waterbirds including Whooper Swan (*Cygnus cygnus*), Brent Goose (*Branta bernicla hrota*), Golden Plover (*Pluvialis apricaria*), Dunlin (*Calidris alpina*), Black-tailed Godwit (*Limosa limosa islandica*), Curlew (*Numenius arquata*), Lapwing (*Vanellus vanellus*), and Greylag Goose (*Anser anser*), as well as multiple Annex I species protected under the Birds Directive. These species roost and feed on the SPA and on surrounding agricultural and bog habitats; their flight lines between roosting, foraging, and staging areas will, by reason of the geometric relationship between the SPA and the wind farm footprint, necessarily involve overflights of or passage through the zone occupied by the proposed turbines. The sixteen turbines, with tip heights of approximately 135 metres, represent a formidable array of moving obstacles intercepting the altitude bands habitually used by wading birds and wildfowl in flight over this landscape. The site is situated in a nationally and internationally significant migratory corridor on Ireland's Atlantic seaboard, through which species from Arctic and sub-Arctic breeding populations move between wintering grounds in western Europe and Ireland and northern breeding areas during spring and autumn migration. No part of the EIAR adequately quantifies the frequency, altitude distribution, and directional vectors of migratory bird movements over the development footprint, and no passage monitoring programme that would generate the necessary quantitative data has been submitted.

Sources: Birds Directive 2009/147/EC, Arts. 4, 5; NPWS Site Synopsis: Killala Bay/Moy Estuary SPA (004037); Habitats Directive 92/43/EEC, Art. 6(3); EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(d); SNH/RSPB, Survey Methods for Use in Assessing the Impacts of Onshore Wind Farms on Bird Communities (2000, updated); BirdWatch Ireland, Important Bird Areas in Ireland (2015).

MIG-2. Bare Assertion Without Scientific Evidence: The EIAR's Claim of No Residual Effect on Migrating Species Is Unsupported and Insufficient Under the EIA Directive

The defect: The EIAR contains an assertion, unsupported by transparent, independently verifiable scientific evidence, that the proposed development will have no residual significant effect on migrating bird or bat species. The EIA Directive as amended by Directive 2014/52/EU requires that the EIAR include a description of the likely significant effects of the proposed development on the environment and a description of the methods or evidence used to assess those effects, including a reference to the relevant information used and, if appropriate, a note on difficulties encountered in compiling

the required information. A bare assertion of no significant effect, unsupported by quantitative passage monitoring data, altitude distribution data, or a published and peer-reviewed collision risk model, does not meet this standard. The development site lies within documented migration corridors for wading birds, wildfowl, passerines, and migratory bats. The sixteen turbines, each with a tip height of approximately 135 metres, intercept the altitude bands regularly used by migrating species; this physical reality cannot be dismissed by assertion. The objector, with a B.Sc. (Hons.) in Animal Ecology, submits that the methodological transparency required by the EIA Directive is absent in respect of migratory impacts, and that the Board cannot rely upon the conclusions of the EIAR's migratory impact assessment without the underlying quantitative evidence to which those conclusions purport to be connected. Additional passage monitoring surveys, radar surveys, and a published collision risk model based on site-specific data must be submitted before this application is determined.

Sources: EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU, Arts. 3, 5(1), and Annex IV, paras. 5(d), 6; Case C-50/09 Commission v. Ireland [2011] ECR I-873 (quality of EIA information); BirdWatch Ireland, Recommended Survey Methods for Assessing Birds at Wind Energy Developments (2016); EUROBATS, Guidelines for Consideration of Bats in Wind Energy Developments (2015); PDA 2000, s. 177I.

MIG-3. Cumulative Barrier Effect: Over One Hundred Turbines Across the North Mayo/Sligo Corridor, With No Meaningful Cumulative Barrier Assessment in the Application

The defect: The north County Mayo and Sligo corridor is among the most intensively wind energy developed landscapes in Ireland. The following wind farm developments are either operational or consented in the same migratory corridor within relevant proximity to the Tirawley site: Glenora Wind Farm (22 turbines, consented May 2026, approximately 7km from Tirawley); Sheskin South Wind Farm (18 turbines, proposed); Oweninny Wind Farms Phases 1, 2 and 3 (192MW+ installed capacity, operational); Keerglen Wind Farm (8 turbines, proposed); Clydagh Wind Farm (up to 22 turbines, proposed); Firlough Wind Farm (13 turbines, ABP Case 317560-23); and Tullynamoyle Wind Farm (proposed). When the turbine numbers of these schemes are aggregated, the effective turbine count across the north Mayo corridor exceeds one hundred. The cumulative barrier effect of this turbine array on migratory birds and bats is, as a matter of ecological theory and empirical observation, substantially greater than the sum of the individual project effects; migratory species encountering an extended linear array of turbines experience compounded collision risk, increased energetic expenditure associated with avoidance manoeuvres, and potential temporal displacement from preferred migration routes. The EIAR addresses cumulative effects in a manner that is superficial and does not engage with the quantitative modelling required to assess a barrier of this geographic scale. The Board cannot lawfully consent to the addition of sixteen further turbines to this corridor without a cumulative barrier effect assessment that encompasses all consented and proposed developments within a landscape-scale study area.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, para. 5(a) (cumulative effects); BirdWatch Ireland, Recommended Survey Methods (2016); EUROBATS Guidelines (2015 ed.), para. 4.5 (cumulative effects); Band et al. (2007), 'Using a Collision Risk Model to Assess Bird Collision Risks for Wind Turbines on Hebridean Machair'; SNH Technical Note TN 2012/01; PDA 2000, s. 177I.

MIG-4. Barrier Effects and Displacement Not Assessed at Landscape Scale: Collision Mortality, Altered Flight Paths, Increased Energetic Expenditure, and Displacement from Foraging and Staging Habitat

The defect: Wind turbines present risks to migratory birds and bats through three distinct but interacting mechanisms: direct collision mortality; barrier effects, whereby birds and bats alter their flight paths around turbine arrays, resulting in increased flight distances, elevated energy expenditure, and disruption of migratory staging; and displacement from foraging and staging habitat, whereby the disturbance zone of an operating wind farm (extending to 1–3 kilometres from individual turbine bases for many sensitive species) renders nearby habitat unsuitable for use during the operational period. None of these three mechanisms has been adequately assessed at landscape scale in the EIAR. The collision risk assessment, insofar as one exists, does not employ a published and validated collision risk model applied to site-specific passage data. No assessment of barrier avoidance flight paths or the associated energetic cost has been conducted. No assessment of the effective displacement of migratory staging habitat within the disturbance zones of the proposed turbines has been provided, notwithstanding that the project footprint may intersect or lie adjacent to habitats used by Golden Plover, Curlew, and other species listed as qualifying interests of adjacent SPAs for their staging and foraging use of blanket bog and rough grassland habitats. An ecological impact assessment that omits to assess two of the three principal impact mechanisms for migratory species cannot be considered adequate for the purposes of the EIA Directive

or sufficient to support an Appropriate Assessment under Article 6(3) of the Habitats Directive.

Sources: EIA Directive 2011/92/EU (as amended), Annex IV, paras. 3, 5(d); Habitats Directive 92/43/EEC, Art. 6(3); Gill et al. (2001), 'Modelling effects of the Proposed Offshore Wind Farm', Biological Conservation; Drewitt and Langston (2006), 'Assessing the Impacts of Wind Farms on Birds', Ibis 148(S1):29–42; BirdWatch Ireland, Wind Energy Best Practice Guide (2016); NPWS Guidelines on NIS (2009).

MIG-5. NPWS Active Research on Trans-Atlantic Bat Migration: Precautionary Principle Requires Mandatory Curtailment Protocols Pending Research Completion

The argument: The National Parks and Wildlife Service of Ireland is conducting, during the period 2025 to 2027, active scientific research into trans-Atlantic migratory bat movements along Ireland's west coast, focusing in particular on Nathusius' Pipistrelle (*Pipistrellus nathusii*) and Leisler's Bat (*Nyctalus leisleri*). Ireland supports globally significant populations of Leisler's Bat; the country's entire population is estimated to represent a substantial proportion of the global total for this species. The hypothesis of trans-Atlantic migratory movements, linking populations in North America with European populations via the Irish Atlantic seaboard, is an active area of scientific investigation and, if confirmed, would place north County Mayo in a position of extraordinary global conservation significance for bat migration. The outcome of the NPWS trans-Atlantic migration research programme, which will not be complete before the likely determination date of this application, has direct bearing on the appropriate level of protection to be afforded to migratory bat species at Tirawley. In circumstances where scientifically uncertain but potentially catastrophic ecological consequences attend upon the grant of planning permission, the precautionary principle — as recognised in Article 191(2) of the Treaty on the Functioning of the European Union, applied in Irish planning law through the Habitats Directive and the EIA Directive — requires that measures to prevent harm be taken in advance of scientific certainty. The objector requests that any planning permission, if granted, be conditioned to require mandatory turbine curtailment during known migration windows (at minimum: March–May and August–October, commencing at sunset and concluding at sunrise) until the NPWS research programme is concluded and its findings have been incorporated into a revised operational management plan.

Sources: Treaty on the Functioning of the European Union (TFEU), Art. 191(2) (precautionary principle); Habitats Directive 92/43/EEC, Arts. 6(3), 12; EUROBATS, Guidelines for Consideration of Bats in Wind Energy Developments (2015 ed.), para. 5 (curtailment); Commission Communication on the Precautionary Principle, COM(2000)1; NPWS, Species Action Plans for Irish Bats (2013); BCI, Bat Conservation in Ireland (2024, updated); PDA 2000, s. 177L.

MIG-6. Strategic Environmental Assessment Gap: Concentration of Wind Energy in North Mayo/Sligo Without an Overarching SEA, Inconsistent With NPF, RSES, and the SEA Directive

The argument: The National Planning Framework: Ireland 2040 (NPF) and the Northern and Western Regional Spatial and Economic Strategy (RSES) commit the State to ecologically sustainable renewable energy development in a manner that does not irreversibly degrade the natural environment or the integrity of designated sites. The concentration of wind energy development across the north County Mayo and Sligo coastline — a landscape of international ecological significance by reason of its blanket bog habitats, its Atlantic migratory flyway position, and its proximity to multiple designated sites — represents a pattern of cumulative development that has occurred through a series of individual planning consents, none of which has been the subject of a Strategic Environmental Assessment (SEA) conducted in accordance with Directive 2001/42/EC (the SEA Directive). The SEA Directive requires that plans and programmes which set the framework for future development consent of projects be subject to a full environmental assessment before adoption; Ireland's offshore and onshore wind energy policy framework, to the extent that it effectively designates north Mayo and Sligo as a priority zone for wind energy expansion, constitutes such a plan or programme, and its implementation through individual consents without an overarching SEA is inconsistent with Ireland's obligations under EU law. The CJEU has confirmed, in cases including Case C-474/10 (Seaport), that the SEA Directive must be interpreted broadly and that attempts to avoid its requirements through the mechanism of project-level consenting rather than plan-level SEA are impermissible. The Board, as a competent authority under the SEA Directive, must satisfy itself that the individual consent it is asked to grant does not conflict with or substitute for a plan-level assessment that has not been conducted.

Sources: SEA Directive 2001/42/EC, Arts. 1, 3; Case C-474/10 Department of the Environment for Northern Ireland v. Seaport (NI) Ltd [2011] ECR I-10227; NPF: Ireland 2040 (2018, updated 2024); Northern and Western Regional Spatial and Economic Strategy (2020); Habitats Directive 92/43/EEC, Art. 6(3); EIA Directive 2011/92/EU (as amended), Recital 1 (relationship with SEA); PDA 2000, Part IIA (SEA in Irish law).

Primary request: Refuse this application on the grounds set out in this Appendix, or at minimum require: (a) a full, methodologically transparent migratory species impact assessment; (b) a regional cumulative impact assessment covering all wind energy developments across the north Mayo and Sligo Atlantic flyway; (c) a full Appropriate Assessment addressing all European sites in combination; and (d) a Turbine Curtailment Protocol and Adaptive Management Plan for migratory species conditioned on any permission.
