

Patrick Kearney
Cloonalaghan,
Carrowmore- Lacken
Ballina,
Co Mayo
F26V4X2
Date:21th of June 2026

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

Attn:	The Secretary
Re: Case No	PAX16.324258
Local Authority:	Mayo County Council
Developers:	Constant Energy Limited
Development Location:	Ballymurphy, Ballynaleck, Barnhill lower, and Upper, Barroe, Billoos, Carn, Carrickanass, Carrowmore, CastleLacken Demesne, and other townlands in co mayo. Ballina Co Mayo
Development Description:	16 No Wind turbines Tirawley wind farm Strategic Infrastructure Development
Objection:	
Fee:	Fee attached of €50.00

Dear Sir/Madam,

I wish to object to the above development for a number of reasons as set out hereunder.

In the first instance, I wish to confirm the following: I am a resident inside 2KM of two separate Wind turbines and in particular the BESS and Associated infrastructure.

My Name is Patrick Kearney . I hold a master's degree MSc. Environmental Health and Safety Management, A Chartered member of the Institute of safety and health since 2008 a number of other relevant Qualifications National Diploma in Engineering National Diploma in QA/QC , National Diploma In Safety Health and welfare first class honours with 38 years constructional experience working for many different tier 1 main contractor's and contractors, developers during the 1990's until present. Acting mainly as

Environmental Health Safety Quality Manager and PSCS including acting for the client on large scale developments.

I have many years' experience of developing and reviewing CEMP, CMP and instructing and engaging environmental monitoring consultants in relation to location and level of testing required, to comply with the law, and for litigation as well as development of H&S Plans including emergency planning for Transmission line projects and large scale developments up to 25-acre construction sites.

I have also worked with main mechanical and electrical contractors on nation infrastructure from 400KV to 220KV and 110 KV transmission lines down.

- 1. Contrary to what developer Constant Energy Limited has said, we as a community were never adequately consulted about this proposed project. My family on both sides were born and raised in the Lackan area for many many generations. the only consultation we were aware of was in Ballina which is 22.5 KM away from my residence. I attended at very short notice. At this meeting i formally requested documentation I signed and dated a form and none such information was ever forwarded to me. I did give them my address and Eircode and asked them formally on their form to forward me this information this in my opinion is not consultation. please be aware the add that was placed in the local newspaper has difference to what is in the developer's submission (Does not mention town lands).**

I Live in the town land of Cloonalaghan and my family will be able to view on the skyline 11 of the WT from my kitchen window. My brother next door will be able to view 7 while both of my aunts families houses will be able to view 7 and 10 On the elevated coastal site. These industrial units will tower over our land scape, the Salt Mash SAC an area of true scenic beauty and an area of unequalled history, forever. These four Family homes are inside the 2KM radius of two separate WT/

Patrick Kearney Cloonalaghan F26V4X2

Ann Sammon Cloonalaghan F26 P7E5

Andrew Kyrallou and Family Cloonalaghan F26N9D7

James Kearney Cloonalaghan F26R2YT

Reasons for my objection

The site location

- 1. The proposed Development is in a "Quiet Rural area".
When we read the noise monitoring report there are a number of fundamental flaws.
Looking at section 11 Noise on page 64 is fundamental flaw exists and the report states that Ballycastle is within 3 KM with a population of > 1000. Habitants (The report clear states that on this one assumption the site is not a quiet area The**

most recent 2016 census gives the population of Ballycastle co Mayo as 219 inhabitants this is a huge discrepancy for the first step and the basis for all the calculations given in that section.

The report is fundamentally flawed and must be treated as a Quiet area so the calculations in the report need to be reviewed please refer to EPA guidance on noise.

I object under the following In section 11 Noise on page 12 By The documents own admission “current scientific knowledge is such that AM cannot be predicted at the planning stage, but can only be measured once the windfarm becomes operational” how are we expected to live and sleep when the developer confirm they cannot predict at the planning stage what AM we are to be subjected to. They confirm that once the WF is built they will have to measure the AM. Is it not reasonably practicable for us to expect an accurate representation of what to expect rather than just saying they will measure after the WF is in Place.

I object to the development as

- a. Insufficient data was recorded as part of their submission document as noise survey should be undertaken all year -round including specific reporting on individual nights extracted from “Windfarm living, Educating the lawyers” series they also state that:
- b. adjusting the operation of the wind farm to abate nuisance, i.e turning them off at night, but it clearly states that WF are only concerned with business profits, so a. and b. are not an option for the wind farm operator.

The Planning document resort to a complaint’s procedure and in the case of “Acciona of Mortlake South Wind Farm”. The windfarm, as a response to the complainant, to give a response of any kind, no matter how unsatisfactory deemed the complaint resolved.

, The Judge in this case would describe this type of behaviour as “Heavy Handed” the document for the Tirawley WF is very heavily reliant on the complaints procedure and turning off individual WT for wind flicker as mitigation measures as well as when the turbines are over the permissible noise limit they can be turned down remotely to a quieter mode electronically. This is unjust expecting us to believe they will be turned down when we complain how will this work. When we cannot sleep from noise pollution and the developer does not comply with the rules of natural justice. who do we turn to on a windy night, and we cannot sleep turn to along winded complaints procedure.

The EPA 2016 NG3 (Noise guidance) when a draft 2024 or 2025 exists. most noise assessment won’t mention the NG3 because it requires BAT Best Available techniques. the Tirawley noise assessment actually states (Page 15) BAT should be used in the selection and implementation of appropriate noise mitigation measures and controls.) this throughout the 2006 Guidelines this must be looked at ABP as a flaw in the design team submission and does not make other WF documents only reference the 2006 guidelines in a quiet rural area. The noise report is fundamentally

flawed. One cannot take what suits them from a particular regulation and then quote a different regulation if it suits them if they mention NG3 and reference it then the report is flawed.

I object on the following grounds

When you read the EIAR And in Particular Section 11.2.8 Page 13 under the reports own admission it states that there is no serious consequence to people's health from infrasound exposure, but it is clear how the document is written that there is consequences for exposure to infrasound again there is insufficient data for the board to make a clear decision on this matter as the WF is too close to habitable dwellings.

Most case laws and Peer review journals are quite old and ABP must look at the body of recent Peer review Journals, so they are in a position to make a clear informed decision and not to be swayed by other lobbying bodies.

From the EIR 11.2.11 Under their own admission the developer states access to the nearest dwellings were carried out. Access was never given and permission was never sought especially for the H5, H6, H16, H14 as nighttime levels are above 43dBA before any Mitigation measures. There is another flaw in their calculations as in SO2 mode as described later the noise level increases in a linear fashion up to 13 m/s. Then there report states that after 10m/s the noise level does not increase.

11.4.3 of the EIAR Page 43 states seven receptors are above the 43dBA nighttime level and further states that 2 of the 7 are of the receptors have a financial interest in the development.

The report then incorrectly states that the noise limits at the remaining receptors at all wind speeds are therefore compliant, the above is a clear misrepresentation of the data and information given this again contradicts the statement under their own admission in the paragraph above.

When researching many recent Peer review Journals on this matter, we have a number of objections (Many of the developers references are quiet dated in relation to recent peer review journals data).

With reference to most recent research in Northern Galilee in Israel, the distance of 1000m 1200m from habitable settlement are the most favourable to reach optimal environmental objectives for all concerned. A separate peer review Journal Science Direct "Is Setback distance the best criteria for siting wind turbines undercrowded conditions? An empirical analysis" Erez Peri Et al.,

As risk does not diminish with viewing distance, and flash frequency is the critical factor. (extremely relevant in a costal elevated location with higher than normal wind speeds) Again, mitigation measure are heavily reliant to controlling all variables when operating the wind farm Re "Wind turbines, Flicker, and photosensitive epilepsy: Characterising the flashing that may precipitate seizures and optimising guidelines to prevent them" Graham Harding et al., 04 April 2008.

Some of the most recent peer review research by Dr. Ursula Bellut-Staeck a German Doctor, where she appeared before the Alberta Utilities commission as a sworn expert on health effects of infrasound.

Dr Bellut states Air Pressure fluctuation, This is below 20 Hz where humans are extremely sensitive to anything below this level and there are harmful impacts on the human vestibular system as well as regulatory mechanisms in blood vessels.

ref Dr. Calvin Luther Martin, PhD October 2025 When you get into anything below 20Hz you have now exited the realm of noise and sound and have now entered the dangerous vestibular domain of air pressure fluctuation.

The Board must look at this recent research carefully to ensure they have done what is reasonably practicable and they are doing the right thing in Particularly for the health and wellbeing of the community scattered around this WF.

In further research. by Dr. Ursula Bellut-Staeck reveals that this constant transmission of pressure fluctuation can pass through buildings and walls which impact on endothelial cells of the human body which can lead to further health problems. Dr. Ursula Bellut-Staeck July 27 2025 Journal of clinical medicine, April 2025.

The development of this WF, as the methods and results from the noise monitoring are not in line with the most recent peer reviewed journals on this matter.

There is a growing body of research some as far back as 2011 With Dr. Sara Laurie, MD, February 10 2011, cf" Submitted to the Australian Federal Senate Inquiry on rural wind farms giving a setback of 10KM to human habitation.

We object on the following grounds. (an oversight by the developer to mention the local secondary school only calls it a receptor).

The WHO recommend Maximum background noise of 35 decibels(dBA) for classroom for effective learning The WHO Shows how noise affects sleep and cardiovascular and metabolic function and reducing noise is one of the EuZero Pollution Action Plan.

With reference to the developers report at a wind speed of 8m/s the dBA levels are .7 dBA Over the permissible level As you can appreciate wind speed can be much higher in this area with a resulting greater Noise level for the students in the school, but the developer has stated in table 11.18 a predicted noise level of 45dBA with a reduction of 7.3 Giving a potential dBA level of $45 - 7.3 = 37.7$ which directly conflicts with the data on page 37 of the EIAR Giving a dBA level of 35.7 reminding the reader that the WHO recommend background noise for a school of 35 dBA.

With reference to peer review journal " A procedure for deriving wind turbine noise limits by taking into account annoyance Science of the total Environment 2019 A wind turbine limit of 43.1 dBA is derived and this is also highlighted in the report by the developer, but they continue to use the 45dBA noise level

The WHO recommend that the population should not be exposed to levels of external noise at night above 40 db. Once the board examine the data given it clearly shows many receptors over this noise level.

I would respectfully ask the inspector to review the reports which are ambiguous and badly referenced and much of the data is not easily accessible the site is actually referenced as being located at the pier in Ballycastle reference MAP 8 approximately 6 -8 Kilometres from the proposed development this is only an example with many references to homes being over written making it difficult to view locations of homes.

The WHO has stated that background noise in classrooms should not exceed 35 dBA for optimal learning conditions research evidence shows that noise does have an effect on children's performance at school, with older children appearing to be the most affected by noise The Effects of Noise on Children at School a Review, Bridget M Shield et al., J. Building Acoustics 10(2)-106 2003. It is in an area of outstanding natural beauty adjacent to a proposed natural Heritage area and a Special Area of Conservation the views are world Famous. When I was studying engineering in the early 1980 in University of Limerick a college friend from Germany Visited our locality, I was very interested to know that he had many articles about the heritage of the area and the importance of our neolithic sites.

The data provided by the developer noise levels above this recommended level. The developer has omitted the fact that there is a secondary school in the community and has only called it a receptor.

I review drawings such as scaffold designs and designs in general for emergency planning and fire for multi-story development hotels pharma, hospitals during my normal working day etc but when you take a look at for instance AT 02 it is coordinates are 357m in the correct location and then there's micro siting which is permissible which can be another 20M how can any one make an informed decision on the expected affect on their Home. Looking at another example when you look at technical Appendix 11.1 just an example page 18 all the data locations are overlapping and difficult for normal homeowners to interpret the data given.

Reading the documents there is very little detail on invasive species with the presence of Japanese Knot weed around the quarry on Lackan Hill and other various species invasive species (Carex Pendula) along the Cloonalaghan river. The wildlife is really spectacular in the area especially around the salt marsh which I own a 1/26 part of that commonage. I remember have watched the Whooping bird, corn crake and many other species in the salt march during the bird nesting season including swan as they pass over our house in for the last 60 years in Cloonalaghan on the same flight path landing at the Cloonalaghan river and taking off in the direction of the Gasebo (A unique piece of heritage probably the only one in Ireland). I would question how much data can be

recorded from these grab type sampling techniques compared to local inept knowledge of what really happens in this salt marsh and associated areas.

I Believe turbines will decimate these birds as they are in the direct flight path.

I Object as we were not given the following information

Some of the area's most visually affected are Cloonalaghan, Tooreen, and Foghill in particular, but there are no photos showing this in any of the visual report, it has been omitted by the developers I would specifically ask that views should be given of the effect on the landscape in all of these villages/ townlands and would ask the inspector to travel these roads and view across the salt marsh onto the elevated coastal location. These location are not shaded or hidden by the land scape and cannot be absorbed by the land scape because of their elevated location. We have a right to be given accurate information on the development. These are the villages that have the greatest visual impact from the development but for some reason were completely omitted from the report. just to reiterate I would ask the inspector to drive these roads and view where these WF are proposed at this coastal elevated site. As a tight community decimated with emigration what will our children have to return to, when our properties are ruined with elevated noise levels and excessive shadow flicker and the homes become uninhabitable because of the noted nuisance.

It is an open Coastal area that does not benefit from natural landscaping that is not capable of absorbing or sheltering the development.

Some of us have lived through the Celtic tiger years and this quarry existed with much traffic in and out before the developer ever purchase the sites. again, there is no adequate information or any investigation works of this vast area and what is contained at this location, with little referenced on these planning documents.

The road serving the proposed development, is poorly aligned horizontally and vertically And the CEMP for the TM gives only generic potential site setups, this level of details in no way adequate for a development of this scale. There is no road safety audit completed and there is no Design risk assessment for the proposed realignment. The land agreements are also in some cases not signed and reference entities that no longer exist.

It is also only one carriage width wide; no form of public lighting is provided and there are no footpaths or cycling lanes in the area.

The report does make some attempt to recognise Hazardous materials on site, but little effective details are given on the management of encountered hydrocarbons in a SAC and such a changing water system particularly during heavy rain on an incline site heading for a Salt Marsh.

The development if granted will set an undesirable precedence for future developments of this type in a historic area of unprecedented unspoilt scenic views with such a history from neolithic sites older than the pyramids. To give another example in relatively recent times the first soldier killed on Irish soil was commemorated in 1798 (statue present at rear of old castle Lacken Demesne. Many locals have fields called

“Caillte Francach” as do I, this is the Irish for lost French soldier where many French were lost and buried to the landscape.

With all the submissions made by Local residents re the proposed development

It is clear that the proposed WF does not meet with Local approval within excess of 100 families been represented in our community centre.

(i) The proposed development is at variance with the normal farming activity in the area. There are no shops concrete or steel suppliers nearby to service the proposed development and as a result extra traffic movements will have to be generated to service the site the CEMP make little effort to mitigate such an influx of traffic to cater for such an sprawling extensive development, it does not comply with how such a development should be layout and seems to hit and miss in between Significant historic monuments.

The applicants state that the proposed Development will increase the traffic movements. These roads in the main are single carriage way roads in some circumstance no access will be possible for Homes for long periods especially during concrete pours.

The permissions added from the land owners are also flawed and reference some entities that no longer exist, some are not properly signed and date, how can this be acceptable to ABP.

As with most of the report which in the developers words is predominantly a desktop study . The figures are not realistic in the CEMP and is based on the premise from a basic calculation of required hard standing for crane and lay down area for blades and WF components.

In reality construction workers are likely to generate extra vehicular movements going to heavy plant and equipment including large cranes and ballast for erecting the turbines. It is likely that a development like this will generate excessive traffic movements per day. This will increase the possibility of vehicles impacting with pedestrians, cyclists, or other vehicles and wildlife on single carriage way roads

(ii) Wetlands/ecology/wildlife Salt Marsh.

The proposed development WF of 16 turbines on a site prone to Pluvial flooding will if permitted cause groundwater pollution from the proposed onsite treatment plant. The reports give only a snapshot of the area with little local knowledge used on the preparation of such reports. No mention of recent flooding on the Carrickanass road for days every time after a yellow rain warning with the potential to flood the Cloonalaghan river. There is very little detail given on the Mitigation measures for all the streams entering the Salt Marsh SAC. One section mentions adding silt buster to the waters in a controlled manner the document also says the contractor will analyse samples taken. There is no transparency here and this should be taken by an independent third party all this water will end up in our SAC which flows out towards all local bathing waters including the Lacken pier.

I would respectfully request the ABP to carry out further investigation of flooding. In recent years I have personal experience of a wall of water running down the centre of the Carrickanass road around 400mm deep and lifting my car with the force of water and flowing directly into the Cloonalaghan river. There is no mention of anything like this in the document, a lack of understanding of the area and only desktop studies completed.

Additionally, surface water generated on the proposed hard stand areas will cause additional ponding on site and how are the hydrocarbons dealt with in a sensitive area, the report also mentions chemical treating of the tree trunks after felling a process that must be controlled.

All of the above issues will impact negatively on the existing ecology and wildlife associated with the area.

(iii) There are many organic farm, and various farming enterprises scattered both sides of the proposed development health and safety of animals, residents and tourists.

Comment: It is a fact that all tourists have commented on the unspoilt natural beauty of the adjoining lands.

(iv) Reduction in habitation of bird species

The Development if permitted will reduce the habitation of birds and wildlife in the area.

On Saturday the 31 May 2026 for example at 50 Metres from Palmerstown bridge I witnessed a corn crake in one of its final remaining strong holds, there are hen harriers also on the hill towards Lissadrone bog.

(v) Obstruct views, Natural beauty, traffic

Comment: This area of coastline is extremely sensitive and needs to be protected. Even as it is, it is under some level of urban influence due to the number of bungalows that are built in the area and no one is allowed to build a two storey house in this sensitive area.

The proposed development of the access road areas will show as a permanent scar on the rural landscape.

(vi) In the EIAR Chapter 4 it clearly shows that AT01, AT05, AT08, AT07, and AT12 are not designated in a tier 2 open for consideration for Mayo wind development. Un-zoned land, no services, child safety, traffic noise pollution, environmental impact, ecological area.

An Board has reminded the developer at each meeting that they must adequately justify why the development continues to retain locations that are outside the scope of the Mayo County Development Plan Page 5, 3rd meeting with an Board.

Under Mayo Co.Co's own admission on page 2 of note of meeting Date 18th August 2023 Dunedin Consultants the UNESCO Tentative world Heritage site (Ceide Fields) the full extent of the Ceide Fields archaeology site is unknown and may reach as far as the windfarm site. And Mayo COCO" stating they would not be in favour of such a proposal at this location" Dated the 29th August 2023.

Light pollution

This development if permitted will cause light pollution in the area because Health & Safety requirements will dictate that the access road will have to be lit up at night and there will be the presence of Red aviation lights everywhere in the night skyline. All local residents will not recognise their skyline with the frequency and brightness of these aviation lights and will be unable to enjoy the clear night skies of North Mayo.

With reference to Sweetman Vs ABP high court, the developer may not have adequate flexibility with the design supplied because of the potential depth of bog like material and potential subsidence at specific locations and lack of detailed information to back up the preliminary design. Many of these locations are rock but some are bog land which will require extensive foundations. Insufficient foundation details are given on drawings only one option is given in the planning drawing. These excavations will require extensive dewatering techniques that will require extensive containment and filtration systems such as a silt sock, silt fences and similar techniques. This is not detailed in the document.

Based on the information provided by the developers of this proposed WF area it is my opinion that the development should be refused for the following reasons:

- 1. The site is located in a rural area.**

It is elevated and visible from the Coastline including Donegal. Landscaping is not present and as such, it is not possible for the site to absorb this development.

- 2. No in-depth road safety audit was carried out. The roads are generally one carriage way width. Also, they are poorly aligned, horizontally and vertically.**

There are no footpaths or public lighting in the area. And this development would cause much hardship for Vulnerable Road users in the locality

The Development if permitted, will create an unwanted industrial Buildings 15 Metre high in a community that consists of bungalows, this development is inappropriate on this landscape. At this location the development is predominantly flat after rising sharply from sea level and will be viewed from an extensive distance.

The development if permitted will visit hardship on existing residents with excessive traffic and noise pollution and wildlife in the area.

In summary of this section, it is felt that in this highly sensitive area it will not be possible to mitigate against noise and light pollution, shadow flicker, nor will it be possible to introduce measures to make the access roads safe to use by the existing and the proposed additional traffic that such a development is capable of generating.

With reference to the planning document and in particular no 9 description of the proposed development. The developer has glossed over and only mentions a control building with welfare and associated electrical plant facilities on page 8. In reality this building is 15.00 metres high by 48.10 long in a locality where rural farmhouses are the norm.

I object as there is no building even similar in the local countryside with additional approx 2 acres of stoned out area with little thought of how the waste water will be discharged from the Facility.

I object to the development as there is Lack of clear and strategic emergency planning for an Extensive BESS and there is no water discharge licence for the entire facility into an SAC.

Taking into consideration, the fire in Claregalway reported on Wednesday January 29th January 2025. Five firefighters were Hospitalised over the course of a two day battle with the Blaze, With schools and businesses evacuated and residents instructed to close all windows. External expertise was necessary from the UK to extinguish this fire . The Batteries were contained in a fireproof container (Similar to this proposal) when the emergency situation arose. Schools were also shut for an extensive period after the incident. Many of these chemicals are listed in the in the Chemical Agent Code of practice 2026. The BESS proposed at the 1.56 Acre Bess Downwind from my property will use a similar steel container system that was used in the above outlined incident which proved to be ineffective.

Lithium-ion Containing, Lithium, Cobalt, Nickel, and Magnesium and lead acid. Lithium-ion is the most prevalent due to high energy density there are variations like LFP (Lithium Iron Phosphate and NMC (Nickel Managanese- Cobalt).

Particular attention should be given to Occupational exposure limits values, that under certain conditions would be exceeded for local residents in the event of emergency occurring.

When we access the HSA Chemical Agent Code of Practice for 2026 again there is no mention of any chemical risk assessment available for the Development outlining the clear and present chemical dangers to both human health in the vicinity and downwind of this facility should a fire occur again this is an agriculture based area with potential effects of these chemicals entering the food chain. I live directly downwind from this BESS development.

The Construction Regulations 2013 (S.I No . 291 2013) require comprehensive management of construction risks, including appointment of a Project Supervisor Design Process (PSDP), and the requirement for DRA Design Risk assessments and CEMP to be completed at the planning design stage.

PSDP Appointment and Responsibilities:

The developer acknowledges the need for a PSDP appointed in writing at the start of design (draft-revised-wind-energy-development-guidelines-december-2019-385c92c2-16f9-4511-80bf.pdf, p.164).

Responsibilities include coordinating designers, developing safety and DRA's.

This indicates compliance with the Construction Regulations 2013 regarding PSDP roles.

All designs must look at likelihood and the potential severity for an accurate RA an example would be Peat Stability Risk Assessment: But the DRA must cover all topics that have a potential to cause harm from the designers and planning process.

The guidelines emphasize peat stability risk assessments to avoid bog slides and ensure site stability, especially for floating roads or traffic access routes (draft-revised-wind-energy-development-guidelines-december-2019-385c92c2-16f9-4511-80bf.pdf, p.164).

Again, the construction regulations stipulate the use of principles of prevention for all assessments to be complete this is not used in the reports as required by H&S legislation and should be included in the CEMP.

The developer notes no significant peat deposits are present at the site (Record of Meeting.pdf, p.6), implying limited risk but it must be detailed and correctly assessed. However, explicit peat stability risk assessments or mitigation plans are not detailed in the provided documents. And the designer must supply a detailed RA of this and all the other design issues.

Gaps analysis/ Areas Not Fully Addressed:

While the PSDP role is acknowledged, there is no clear evidence in the documents of the formal appointment of a PSDP or a detailed preliminary safety and health plan as required at the design and planning stage.

Peat stability risk assessments are not explicitly presented, and although peat is reportedly minimal, the absence of a formal risk assessment or monitoring plan for peat stability is a gap.

Although ecological and environmental risks are addressed, the integration of construction health and safety considerations with ecological management could be more clearly articulated. But there must be a clear RA process at all stages of the design

The CEMP mentions compliance with noise standards but does not specify adherence to the full spectrum of Construction Regulations 2013 requirements such as risk elimination at design or temporary works design coordination. There is no mention in the planning in any RA to allow for the crane collapsable radius which is a basic requirement and a clear omission from the design and planning process.

The plan does not explicitly discuss management of temporary works safety or detailed procedures for coordination of designers beyond general references. There is no mention of TWC as outlined in the construction regulation and a temporary works designer as well as the mandatory temporary works coordinator in the CEMP.

Summary of above:

The developer's plans broadly acknowledge and address many construction-related risks. However, the documents lack explicit formal appointment confirmation of the PSDP, detailed design risk assessments, DRA for all risks and processes and clear likelihood and severity matrixes, a comprehensive preliminary safety and health plan from the design stage, and explicit procedures for temporary works and designer coordination as required (you must plan and design out foreseeable risks) by the Construction Regulations 2013.

Based on the documents provided, the following critical analysis identifies failings related to fire safety and compliance with construction regulations for the Tirawley BESS facility and associated infrastructure:

1. Incomplete/Preliminary Nature of the Fire Safety Assessment (FSA).

The report acknowledges that technology and fire suppression measures may evolve by the time of construction, implying that current measures may become obsolete.

No particular BESS make/model had been selected at the time of writing, and the assessment is based on general recommendations rather than specific system design.

This introduces a significant shortfall in that the fire safety provisions are not fixed or definitive and rely heavily on future updates and consultations, which may delay or complicate compliance during planning design and construction.

2. Ambiguity and Lack of Definitive Guidance for BESS Fire Safety in Ireland.

The FSA (Appendix 16.1, pages 7, 11) highlights:

There is no definitive Irish Government guidance or legislation specifically addressing fire safety for energy storage facilities (BESS).

BESS facilities in outdoor settings are currently outside the scope of the Fire Safety Certificate regime and may not fully comply with standard Building Regulations Part B (Fire Safety). No Clear governing regulation no RA or DRA and potential for uncontrollable fire.

The report recommends consultation with Building Control and Fire and Rescue Service to clarify statutory requirements, indicating uncertainty and potential regulatory gaps.

This lack of clarity may result in inconsistent application of fire safety standards and insufficient statutory oversight during construction and operation.

3. Absence of Evidence of Substantial Consultation with Fire Authorities

The FSA (Appendix 16.1, pages 36, 43-46) repeatedly advises:

Early and ongoing consultation with the local Fire and Rescue Service is essential to establish requirements for firefighting water sources, vehicle access, emergency response planning, and operational risk visits. We acknowledge the developer has contacted the authority, but this type of development is in its infancy and we do not have enough clear guidance or regulation in Ireland at present. This is also acknowledged by the fire consultant.

The report notes no confirmed information on provision of public fire hydrants or firefighting water on or near the site, only a possible public watermain.

The facility is unmanned, which places further importance on Fire and Rescue Service preparedness and access. Present thinking on these facilities is to allow a fire to burn out once it starts as there is no BATNEC technology available for such a risk.

The FSA (Appendix 16.1, pages 44-45) notes:

Firefighting water supplies should ideally include a permanent water source (public hydrants or static tanks) subject to Fire and Rescue Service requirements.

The EIAR (Chapter 16 - Major Accidents & Natural Disasters, pages 22-45) references fire risk management plans and routine maintenance of firefighting equipment but does not confirm specific provision or installation of fire water tanks or hydrants and planning and design for fire suppression systems for the electrical substation or BESS site.

Compliance with Planning and design for Construction Regulations Regarding Fire Safety.

The Construction Regulations 2013 (pages 18, 21, 34, 41) impose duties on clients, design and planning process has little detail on how these fire risks are to be RA with severity and likelihood of fire omitted from the report. (The report is basically another Desktop review on what incidents have happened over the world with these storage units).

The FSA report and EIAR mention that a comprehensive fire safety risk assessment will be conducted post-construction and that the site falls under the Safety, Health and Welfare at Work Act 2005.

However, the current documentation lacks:

A detailed fire safety plan specific to the design and planning phase as well as the construction phase of the BESS and electrical substation.

This indicates an incomplete integration of fire safety planning into the design and planning phase, which is a regulatory requirement and shows critical safety shortfall.

Summary of Key Shortcomings

Fire Safety Assessment

This preliminary assessment is incomplete for design and the planning phase; fire suppression technology may change; no final system selected the report give no clear instruction or direction of how the design of this BESS will be built and no plan on how the ER planning will be developed.

Appendix 16.1 (multiple pages)

Regulatory Guidance:

There is a lack of definitive Irish government fire safety guidance for BESS; ambiguity in Building Control and Fire Safety Certificate applicability.

Appendix 16.1 (pages 7, 11)

Fire Authority Consultation:

No evidence of substantial consultation or confirmed firefighting water supply; unmanned site increases risk and uncertain applicable standards to comply with.

Appendix 16.1 (pages 36, 43-46)

Design Planning & Construction Phase Fire Safety

Lack of detailed fire safety design plan, safety file, and evidence of compliance with Construction Regulations' fire safety requirements.

Construction regs 2013 (pages 18, 21, 34, 41); EIAR Chapter 16

Direct from the Fire Report

This Document is fundamentally flawed the first page of the report refers to a client which is not mentioned in any other submission documentation **Regnum Renewables Developments** Limited Project Fire Safety Assessment and Advice Report for a proposed Battery Energy Storage System (BESS) facility in Tirawley, Co. Mayo

Page iii of the report specifically states that all information and references to legislation must be re written before any construction work takes place. ABP should review this report very carefully.

The developer specifies the scope of this assessment is associated to the proposed BESS facility only and will specifically address the fire and explosion hazards which have been identified at design stage. There is little mention about the substation and the operation building Is this complete planning and the periodic preventative maintenance of such a vast quantity of batteries located close to a water source that flows into an SAC.

The following is extracted from page 6 of the report “The purpose of this assessment is to support the planning application for the project which involves the construction of the afore mentioned BESS facility, a windfarm, a sub-station and (at a future date) expansion to include solar photovoltaic (PV) panels at an existing greenfield site.” ABP please review this statement is it not a planning issue if one document mentions a Solar Farm and the other omits the fact? Is this project splitting?

Ref Page 6 how can any assessment take place when the developer’s consultant specifically states the following : At the time of writing, the Irish Government has not prepared any definitive guidance on minimum requirements with regard to the design, installation/construction and operation of energy storage facilities/systems. In fact, public consultation was carried out by the Irish Government on developing an electricity storage policy framework for Ireland which closed in January 2023. What the outcome of this framework will be is, at the time of writing, unclear. Furthermore, as this is an ever changing and advancing industry, the content of this Report may, in all likelihood, be outdated by the time of construction.

The design and construction of BESS facilities such as the proposed facility in Tirawley, Co. Mayo does not adhere or conform to the typical examples which are outlined in Technical Guidance Document B: lack of regulation then how can planning be granted. Page 10.

“It is unclear if the scope of the Fire Services Act 1981 and 2003 extends to facilities such as the proposed BESS facility. It will be a matter for the approving authority/local Fire and Rescue Service to advise accordingly if BESS facilities fall within the scope of the Fire Services Act and, therefore, are expected to comply with the relevant sections of the act. “How can planning be approved when the developer has stated the above.

The report starts off stating the facility will be manned 24/7 and then it states “While the BESS facility will be, for the most part, unmanned” there are so many unknowns in the document and fire safety is such a critical component of any infrastructure how can this be allowed to proceed.

Ref page 18 Suppression systems are effective at extinguishing fires; however, the phenomenon of cascading thermal runaway requires more preventative measures than just a suppression system. This technology is located in a rural community with no current fire safety applicable standards.



Figure 6 – Post incident photographs ¹¹

The report systematically goes through a variety of serious incidents that has happened with this unlegislated for technology.

The following is extracted from page 27 of the report Under the 2026 ACOP from the HSA Cobalt is a suspected Carcinogen. There is no mention of a Design Chemical Risk assessment for the use of such substances and must be included in the Design Risk assessment for the design of such a facility.

Lithium cobalt oxide (LiCoO_2 or LCO);

Lithium iron phosphate (LiFePO_4 or LFP);

Lithium-ion manganese oxide (LiMn_2O_4 , Li_2MnO_3 or LMO);

Lithium nickel manganese cobalt oxide (LiNiMnCoO_2 or NMC).

On Page 36 of the report the writer confirms correctly that “Where BESS sites are located rurally and sited within close proximity to or bordering forestry, there is a credible risk that a fire in the facility (irrespective of whether the fire originates in a BESS unit or transformer) could spread beyond the site to the forestry/vegetation, resulting in a forest fire. This risk would be extremely high where prolonged periods of dry or hot weather may occur, presenting ideal conditions for

fire spread.” This fire risk must be inspected by ABP to determine potential harm to our community.

On page 39 of the report, they “consideration of the explosion hazard, all BESS enclosures should be designed and fitted with explosion vents capable of venting a deflagration event. “but there is no reference standard and specific design criteria.

The excavation of such a vast Quantity of soil may lead to TB and Black leg outbreak . This is not considered in an agricultural area and is a clear omission and the document again is incomplete as a planning document.

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Conclusion

The current documentation although well written reveals significant gaps and is incomplete and uncertainties in fire safety planning, particularly regarding the design and planning for construction phase preparedness, firefighting water supply, and statutory consultation. These shortcomings pose potential risks to life safety, property protection, and regulatory compliance. Addressing these issues through updated assessments, formalized consultations, and robust construction-phase fire safety planning is essential to ensure compliance with Construction Regulations and effective fire risk mitigation for the Tirawley BESS facility and electrical substation. This is no fault of the author of the report as such legislation/ regulation is not available in Ireland for such a development.

Objection: Pollution of Local SAC The Lacken Salt Marsh is a Specific Area of Conservation SAC. The introduction of 16 no turbines in this location at an elevated site will introduce the potential of microplastics to an extremely sensitive area. A peer review Journal Titled and published by the Department of Wind and Energy Systems, Technical University, Denmark Microplastic Emission from Eroding Wind Turbine Blades: Preliminary Estimation of Volume By L Mishnaevsky Jr Et al., This Journal clearly states that wind and rain erosion is one of the most frequent observed mechanisms of turbine blade, deterioration and damage.

Estimates show 540 grams per year, may be lost to the adjoining countryside this would be 1.62 KG per Turbine and because of the local beaches salt marsh and sand/ gravel quarries this estimates the erosion would be considerably higher

	Per Blade	Per 3 blade Turbine	16 No Turbines	Yearly	Over a 30 Year life span
L. Mishnaevsky Jr Et al.,	540Grams	1.64KG	26.24 KG	26240 Grams	787 KG or 787000 grams

Accepted and Published Dec 2024					
Company Deutsche Windtechnik Bremen Germany		2.1kg	33.6 KG	33600	1008 Kg 1008000 Grams

We object to the development because all the above has not been considered in all the documentation in the CEMP or anywhere in their documentation, this must be considered as part of the Planning Design RA.

The Developer Mentions Air Quality. How can they say no effect when the body of research and peer review journals state that 1000KG will be added to the unspoilt locality. Particular attention is required from the HSA Code of practice on chemical agent regulations 2026.

Another example of dust will be when 2 acres site will be stoned up to accommodate the BESS. What dust suppression measures will be planned to counteract this risk of Silica as the local stone is Limestone and sandstone both containing silica. Please reference HSA recent campaign on silica and cancer related dusts.

Different Polymers are used in different parts of the blades with degradation of protective coatings by erosion. Everyone has viewed this preventative maintenance on turbine blades and all manufacturers confirm that this wear takes place. The protective coatings are polyurethane bases and epoxies and include thermoplastic and hybrid thermoplastics. The data above was collected with annual rainfall of 1000mm while Lacken rainfall averages 1355 mm thus potentially increasing the KG added to the local environment by an additional 35%

Typically, Turbine blades require repair after 2-5 years according to Leon Mishnaevsky Jr in his Science direct article on "Repair of wind turbine blades: Review of methods and related computational mechanics Problem Sept 2019.

Bioaccumulation by definition is the gradual build-up of substances, such as pollutants or Toxins in living organisms and entering the food chain from local fishing of the waters flowing from the SAC.

"1 Kg of BPA is enough to Pollute 10 Billion litres of water" Since 2017 the WHO has advised drinking water should have a minimum of 0.1 Micrograms of BPA per litre that is the same as 0.0000001grams per litre of water. Asbjorn Solberg, Bard-Einar Rimereit and Jan Erik Weinbach, 08/07/ 2021 "leading edge erosion and pollution from wind turbines P15.

Objection Micro Plastic Harmful to Public local residents Reference 2026 Code of practice Occupational Exposure Limits (OELV).

Polyurethane coated with typical risk Phrases

I object on the following grounds that the developer has not considered the existing ground water, with many home owners using local source water then all wells should have been checked to give a base line for any future potential contamination. This has not been undertaken by the developer.

The Swedish Environmental Protection have said that “Bisphenol A is the most toxic substance we know” BPA is a chemical produced in large quantities for use primarily in the production of polycarbonate plastics and epoxy paints. The Irish regulatory bodies particularly the EPA may not be aware of this most recent research

Sample risk phrases for repair epoxies for WT blades.

H350 may cause cancer

H411 Toxic to aquatic life with long lasting effects

H 372 Causes damage to organs through prolonged or repeated exposure.

Glass fibre reinforced Polymer:

On Review of typical MSDS Material Safety data sheets for the above products

I would urge the board to request all the safety data sheets for the production and repair of these WT Blades and carefully review the impact these chemicals will have on future generations. We all have a duty to protect future generations. When we hold a position of privilege, we must endeavour to ensure we do the right thing.

“Wind turbines, Flicker, and photosensitive epilepsy: Characterising the flashing that may precipitate seizures and optimising guidelines to prevent them” Graham Harding et al., 04 April

The following are different grounds for objection.

Further Grounds why this development should not take place.

Ground 1 – Breach of Article 6(3) of the Habitats Directive

The Appropriate Assessment fails to rule out adverse effects on the integrity of European sites connected to the Shannon (SAC Lacken salt marsh) system beyond reasonable scientific doubt. It relies on uncertain mitigation and post-consent management measures rather than clear, evidence-based conclusions, contrary to Article 6(3) requirements and its Irish transposition.[1]

Ground 2 – Breach of Articles 4 & 5 of the Birds Directive

The project gives rise to collision and disturbance risks for Annex I and Special Conservation

Interest bird species, including Whooper Swan, without demonstrating that such impacts will be avoided or reduced to non-significant levels. Mitigation and management lands are

speculative and unenforceable in practice, contrary to obligations to safeguard protected bird populations.[2]

Ground 3 – Breach of the EIA Directive (inadequate assessment)

The EIAR does not furnish a complete, coherent and sufficient assessment of the likely significant effects on population, human health and the environment. Key topics such as noise, infrasound, shadow flicker, air quality and cumulative impacts are treated in a fragmented way, falling below the minimum information standards of Articles 3 and 5.[3]

Ground 4 – Breach of the Water Framework Directive ‘no deterioration’

Obligation Borrow pits, access tracks, foundations and drainage works risk causing hydro morphological alteration and pollution of surface waters connected to the . The project fails to demonstrate that water body status will not deteriorate or that WFD objectives will be achieved, as required by EU and Irish law.[4]

Ground 5 – Breach of the Environmental Noise Directive and associated

Obligations Predicted operational noise levels, including the potential for tonal components and amplitude modulation, are not shown to keep exposure at noise-sensitive receptors as low as reasonably achievable. Failure to acknowledge our community Secondary school and community church These conflicts with the Directive’s aim to avoid harmful effects from environmental

Ground 6 – Breach of the Aarhus Convention and EIA public participation requirements

The EIAR defers essential details of mitigation and monitoring to post-consent plans, thereby preventing the public from understanding and commenting on the full extent of impacts at the decision stage. This undermines effective public participation under the Aarhus Convention and Article 6 of the EIA Directive.[6]

Ground 7 – Breach of the precautionary principle in biodiversity protection

Significant scientific uncertainty remains regarding impacts on protected habitats, bats, otter, badger and key bird species. In such circumstances, the precautionary principle requires refusal rather than reliance on optimistic predictions and post-consent adaptive management.[7]

Ground 8 – Breach of obligations under the Bonn Convention and AEWA

The development poses collision and disturbance risks to migratory birds using flight paths at a coastal elevated site in north county mayo.

system and its environs. It fails to demonstrate that favourable conservation status of these

populations will be maintained, contrary to international commitments under the Bonn Convention

and AEWA.[8]

Ground 9 – Breach of Planning and Development Act 2000, s.34(3) (proper planning)

Because of its likely adverse impacts on human health, residential amenity, landscape, biodiversity and water quality, the project would be contrary to the proper planning and sustainable development of the area. The Board cannot be satisfied that the benefits outweigh the significant environmental and amenity costs.[9]

Ground 10 – Breach of Planning and Development Regulations (EIA)

The EIAR does not comply with the detailed content requirements in the Planning and Development Regulations. Baseline data, assessment methods and cumulative analyses are incomplete, preventing the competent authority from carrying out a lawful EIA.[10]

Ground 11 – Breach of European Communities (Birds and Natural Habitats) Regulations 2011

The Natura Impact Statement and associated biodiversity documentation do not dispel reasonable scientific doubt about adverse effects on European sites and protected species. Reliance on uncertain mitigation and management plans fail to satisfy the strict protection regime in the 2011

Regulations.[11]

Ground 12 – Breach of the Wildlife Acts 1976–2018

Badger sett disturbance, potential otter holt disturbance and impacts on other protected fauna are not robustly avoided or mitigated. The proposals risk the destruction or disturbance of breeding and resting places contrary to the strict protections afforded by the Wildlife Acts.[12]the potential for TB Outbreak and spread of Black leg in Bovine.

Ground 13 – Breach of Water Pollution Acts and related WFD regulations

Surface water management, particularly in relation to excavations, borrow pits and construction runoff, is insufficiently designed to prevent pollution of nearby streams and drains. The project therefore risks offences under the Water Pollution Acts and non-compliance with water quality objectives.[13]

Ground 14 – Breach of human health protection obligations under EIA law

The EIAR does not provide a robust assessment of likely impacts on human health arising from noise, including infrasound, shadow flicker, dust and traffic. Health pathways are not quantified or assessed against accepted thresholds, in breach of obligations to consider population and human health as key receptors.[14]

Ground 15 – Breach of national noise and amenity standards

Given the quiet rural baseline, the predicted turbine noise levels, including low-frequency and modulation components—are likely to cause sleep disturbance and loss of amenity for nearby residents. This is inconsistent with WHO noise guidelines and the planning authority’s duty to protect residential amenity.[15]

Ground 16 – Breach of EU ambient air quality requirements

Construction traffic, dust and machinery emissions are not properly modelled against statutory air quality standards. Without such modelling, compliance with limit values for PM and NO₂ cannot be demonstrated, contrary to the Ambient Air Quality Directive and national regulations.[16]

Ground 17 – Breach of EU and Irish waste management obligations

The Construction Environmental Management Plan does not provide enforceable arrangements for the handling of excavated material, borrow pit arisings or invasive species-contaminated soils. This fails to meet the requirements of the Waste Framework Directive and its Irish implementing regulations.[17]

Ground 18 – Breach of Irish noise and vibration guidance (EPA and WHO)

Noise predictions omit a robust assessment of low-frequency noise and amplitude modulation, and do not convincingly demonstrate compliance with EPA guidance and WHO health-based noise limits. This renders the conclusions on noise effects unreliable.[18]

Ground 19 – Breach of EIA Directive obligations regarding human health

The EIAR treats human health in a cursory manner and fails to integrate health outcomes across noise, air quality, flicker and stress. This falls short of Article 3 requirements to comprehensively assess effects on population and human health.[14]

Ground 20 – Breach of traffic and road safety obligations

The traffic assessment does not convincingly address the safety and amenity impacts of abnormal loads, construction traffic and grid connection works along rural roads. It therefore fails to meet the planning authority’s duty to ensure road safety and protect local communities from undue disturbance.[20]

Ground 21 – Breach of flood risk requirements (failure to carry out a Justification Test)

Elements of the project are located within Flood location local knowledge compliant Justification Test under the Flood Risk Management Guidelines has been carried out. This is contrary to Section

28 guidelines and the flood risk policies of the Mayo County Development Plan.[21]

Ground 22 – Breach of ambient air quality requirements (lack of modelling) The EIAR does not model PM10, PM2.5 or NO2 concentrations at nearby dwellings or other sensitive receptors. Without receptor-based modelling, compliance with EU and Irish air quality

standards cannot be demonstrated.[16]

Ground 23 – Failure to quantify construction dust and emissions. Dust and particulate emissions from major construction activities are assessed only qualitatively, without deposition or concentration modelling. This fails to provide the level of detail required for a lawful EIA.[3]

Ground 24 – Breach of human health obligations in relation to air quality

The EIAR provides no exposure assessment or comparison with WHO air quality guidelines for residents near construction and haul routes. Human health impacts from air pollutants are therefore not adequately assessed.[14]

Ground 25 – Improper scoping out of operational air quality effects. Operational air quality impacts are dismissed solely on the basis of traffic thresholds, with no receptor-specific analysis. This approach is inconsistent with EIA requirements to assess likely significant effects on the environment. Very difficult to read as legends overlap on many drawings.[3]

Ground 26 – Over-reliance on post-consent shadow flicker mitigation

The EIAR acknowledges significant exceedances of guideline thresholds for shadow flicker at many dwellings but proposes to address these solely through programmable turbine controls after consent. Such post-consent mitigation cannot cure an inadequate assessment at EIA stage.[26]

Ground 27 – Exceedance of national shadow flicker limits. Shadow flicker modelling indicates that houses within the study area will exceed the 30 hours per year and 30 minutes per day thresholds set out in national wind energy guidelines, absent mitigation. This represents an unacceptable impact on residential amenity.[15]

Ground 28 – Scientifically unrealistic shadow flicker modelling inputs. The shadow flicker model assumes 100% sunshine, constant rotor operation and ideal geometry, while omitting vegetation and other real-world shielding effects. Such assumptions undermine confidence in the conclusions and do not meet the requirement for robust, scientifically sound methods.[19]

Ground 29 – Failure to assess health impacts of shadow flicker Despite acknowledging shadow flicker as a potential pathway to affect human health and wellbeing, the EIAR provides no assessment of annoyance, stress or neurological impacts on residents. Human health risks from flicker are therefore left unexamined.[30]

Ground 30 – Failure to assess combined effects of air, noise and shadow flicker. Air quality, noise and flicker are each discussed in isolation, without considering their combined or synergistic effects on human health. This approach fails to meet EIA requirements for cumulative and combined impact assessment.[25]

Ground 31 – EIAR incomplete and non-compliant with Article 5 and Annex IV

The EIAR omits essential baseline data, methodological detail and modelling outputs for key topics including human health and shadow flicker. These omissions mean the report does not satisfy the minimum information requirements of Article 5 and Annex IV of the EIA Directive.[19]

Ground 32 – Failure to assess human health as required by the EIA Directive

Although human health is identified as a topic, the EIAR does not provide quantitative assessments of exposure, risk or health outcomes arising from project-related stressors. This is contrary to the explicit requirement to assess population and human health effects.[14]

Ground 33 – Failure to assess impacts on vulnerable population groups. The project's impacts on vulnerable groups – such as disabled persons, children, older people or those with pre-existing medical conditions – are not identified or assessed, particularly in relation to noise and flicker. This breaches the requirement to consider vulnerable receptors in the EIA.[22]

Ground 34 – Missing data restricts effective public participation. The absence of raw modelling data, detailed methodologies and up-to-date receptor lists prevents the public from independently evaluating the project's effects. This undermines the right to informed participation under EU EIA law and the Aarhus Convention.[23]

Ground 35 – Failure to use up-to-date and authoritative scientific evidence

The EIAR does not provide up-to-date scientific sources or full model documentation to substantiate its conclusions, especially in relation to health and flicker. This is contrary to the Directive's requirement that assessments be based on the best available scientific knowledge.[24]

Ground 36 – Failure to assess cumulative impacts in accordance with EIA law

Cumulative effects with other existing, permitted or proposed wind farms and infrastructure are not systematically assessed. This omission breaches the obligation to consider cumulative and combined effects on receptors.[25]

Ground 37 – Mitigation vague, unenforceable and deferred to post-consent

Many mitigation measures are expressed in general terms, without clear performance criteria or binding commitments and are often left to future plans and approvals. This approach does not meet EU requirements for specific, enforceable mitigation at the EIA stage.[26]

Ground 38 – Reasonable alternatives not properly assessed. The EIAR does not provide a meaningful assessment of reasonable alternatives in terms of site

location, layout, scale, turbine heights or grid connection options that might reduce environmental impacts. This falls short of Article 5(1)(d) requirements.[27]

Ground 39 – Multiple health-related breaches of the EIA Directive

The project fails to assess the health effects on the population, the specific impacts on vulnerable groups, the use of up-to-date science and the demonstration that significant adverse effects can be avoided or reduced. These combined failures mean significant health impacts cannot be ruled out, requiring refusal of consent.[28]

Ground 40 – Shadow flicker modelling and baseline data materially deficient

The EIAR provides no raw shadow flicker modelling files or parameters, omits dwellings built

There is even one Home (Receptor) omitted in my village giving no data to the house holder on noise or shadow flicker

or permitted after the baseline date and fails to document key assumptions. This breaches minimum information standards for modelling and prevents a lawful assessment of significant effects.[29]

Elevated coastal location with lack of clear consultation

Clear errors of location drawings.

Lack of knowledge in relation to Sensory Garden School and Church

Lack of emission licence from BESS and fire emergency planning

Drawings Data locations and descriptions in accuracies.

Micro siting Development extremely important when the coordinates of for example **AT 02 357metres of a difference in the data given by the developer.**

“Provision must be made for carrying out site-specific geo-technical investigations in order to identify the optimum location for each turbine. These investigations may suggest minor adjustments to turbine location. In order to accommodate this practice, there should be a degree of flexibility built into the planning permission and EIS. The extent of flexibility will be site specific but should not generally extend beyond 20 metres. Any further changes in location beyond the agreed limits would require planning permission.”

There is no evidence in the report that CBR testing and associated testing has taken Place so how can the designers and developers determine the foundation type and extent and whether Piling or other similar ground stabilisation techniques are required. Please refer to High court Calls “Design Envelope into Question ref Sweetman V an Bord Planala (2021)IEHC 390(The Dery dad Decision

This will also be required for the TWD for the 500Tonne crane or larger for erection of the WT

There is a statutory duty on the developer to specify the particulars of the development and not to seek a permission for a development that open ended.

1. No site-specific design on foundations no reliable data shown that it can be designed only one detail given

2. BESS Details are not defined mention of one shut off valve in the event of emergency for the entire site. In the event of a fire these contaminants don't disappear they slowly dissolve into the local country side and eventually find its way into the local streams, and food chain there must be a discharge licence for this type of facility the planning document clearly say there is no requirement for one (Section 15 On the Application form for permission/ Approval respect of a strategic infrastructure development : the BESS will require a waste licence as the quantity of water discharged from the site 1.56 Acres and potential contaminants) how can this be when we are dealing with some of the most extremely toxic substances that are categorised in the chemical agents regulations 2026.)

3. Micro siting as above may cause the WT to be 20 Metres closer to Homes and so the 1KM and 2 KM Radius must be extended to show the extent of the homes affected after micro siting.

Because of the size and complexity of this BESS covering 1.56 Acres (the height of this is ok) and additional substation as well the control building in a area which cannot accommodate such high structures on unspoilt agricultural land.

The **National Directorate for Fire and Emergency Management (NDFEM)** must be consulted this body was set up in 2009. They are a section in the Department of Housing, Local Government and Heritage who co-ordinate emergency responses and give support to the Irish Fire Service. Under the regulation of lobbying act are the relevant body, this must be done for such a serious storage Facility.

There is a duty of care on ABP to investigate this and seek further advice, as a minor fire in Clare galway has a number of Fire personnel suffering from the aftereffects of a fire 2 year ago.

Insufficient detail on bunding design of fire suppression system tanks.

No details on how Hydrocarbons are delt with at 48 no stilling ponds as described in the document, is there typical petrol interceptor details or are they to rely on collective preventative measures?.

Further We object to the development under the following heading and in particular the incorrect classification of the area which must be classified as a quiet area under the developers reference 11.4.6.1 NG4. It important to pay attention to the definitions referenced in the body of the report.

Noise.

Reference 11.1.2 terminology

A change in noise level of 3 dB (A) is 'barely perceptible', while **an increase in noise level of 10 dB (A) is perceived as a twofold increase in loudness.**

General Noise Impact

"Noise impact should be assessed by reference to the nature and character of noise sensitive locations."

“Separate noise limits should apply for daytime and for night-time”

“Noise limits should be applied to external locations and should reflect the variation in both turbine source noise and background noise with wind speed. “However, in very quiet areas, the use of the margin of 5 dB(A) above the background noise at

nearby noise sensitive properties is not necessary to offer a reasonable degree of protection and may unduly restrict wind energy developments. Instead in low noise environments where background noise is less than 30 dB(A), it is recommended that the daytime level of LA90,10min of the wind energy development noise should be limited to an absolute level within the range 35-40 dB(A)”.

The below is extracted from the developer’s consultant’s report

11.4.6.1 NG4

There are a number of steps involved in confirming the assessment under the NG4 guidance:

- Step 1: Quiet Area Screening of the Development Location

The location of the Proposed Development should be screened in order to determine if it is to be located in or near an area that could be considered a ‘Quiet Area’ in open country according to the Agency publication Environmental Quality Objectives - Noise in Quiet Areas. This will involve determining if the following criteria are satisfied:

- o At least 3 km from urban areas with a population >1,000 people;
- o At least 10 km from any urban areas with a population >5,000 people;
- o At least 15 km from any urban areas with a population >10,000 people;
- o At least 3 km from any local industry;
- o At least 10 km from any major industry centre;
- o At least 5 km from any National Primary Route, and;
- o At least 7.5 km from any Motorway or Dual Carriageway

The proposed site is located within 3 km of Ballycastle. Therefore, the site is not considered a quiet area.

The developer’s assumption in red above is fundamentally incorrect it is approx 3 KM from bally castle but from the most recent census April 3, 2022, the population of Ballycastle is 199 people and not >1,000 people as per NG4.

From the developers report the above table confirms what a Quiet noise levels should conform with and the area must be designated as a Quiet area.

Table 11.19: Proposed Impact of Directivity Assessment at receptors in exceedance (12 m/s)

Scenario	Daytime Noise Criterion, dB L _{Ar,T} (07:00 to 19:00hrs)	Evening Noise Criterion, dB L _{Ar,T} (19:00 to 23:00hrs)	Night-time Noise Criterion, dB L _{Ar,T} (23:00 to 7:00hrs)
Quiet Area	Noise from the licensed site to be at least 10dB below the average daytime background noise level measured during the baseline noise survey	Noise from the licensed site to be at least 10dB below the average evening background noise level measured during the baseline noise survey	Noise from the licensed site to be at least 10dB below the average night-time background noise level measured during the baseline noise survey
Areas of Low Background Noise	45dB	40dB	35dB
All other Areas	55dB	50dB	45dB

11.2.3.2 An Bord Pleanála

2022 An Bord Pleanála Decision

A recent decision by ABP for a wind farm (ABP-309306-21, dated 26th ; noise limits in accordance with the 2006 Guidelines and were as follow

- (a) between 7am and 11pm:
 - (i) the greater of 5 dB(A) L90,10min above background noise level 10min, at wind speeds of 5m/s or greater,
 - (ii) 40 dB(A) L90, 10min, at all other wind speeds.
- (b) 43 dB(A) L90,10min at all other times

Under the Developers own admission the following homeowners are over the predicted noise levels are higher than the night-time noise limit of 43 dB at six receptors, at various wind speeds – H3, H4, H6, H10, H11 and H13.

Table 11.17: Margin between Predicted Noise Levels and 45 dBA Noise Limit

	ITM	ITM	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9+ m/s
House ID	Easting	Northing	dBA	dBA	dBA	dBA	dBA	dBA
H1*	515110	837466	-4.8	-0.7	3.1	5.4	5.7	5.7
H2*	515526	833767	-7.7	-3.6	0.2	2.5	2.8	2.8
H3	516227	836339	-8.6	-4.5	-0.7	1.6	1.9	1.9
H4	514628	834072	-9.7	-5.6	-1.8	0.5	0.8	0.8
H5	516241	833804	-12.6	-8.5	-4.7	-2.4	-2.1	-2.1
H6	515489	833504	-10.4	-6.3	-2.5	-0.2	0.1	0.1
H7	517503	837983	-11.8	-7.7	-3.9	-1.6	-1.3	-1.3
H8*	515450	832962	-9.7	-5.6	-1.8	0.5	0.8	0.8
H9	515080	831996	-12.7	-8.6	-4.8	-2.5	-2.2	-2.2
H10	515456	833467	-10.4	-6.3	-2.5	-0.2	0.1	0.1
H11	516561	837118	-9.6	-5.5	-1.7	0.6	0.9	0.9
H12	515575	835060	-11.2	-7.1	-3.3	-1	-0.7	-0.7
H13	515019	834112	-10.4	-6.3	-2.5	-0.2	0.1	0.1

Below shows predicted Noise Impact on a small sample ranging from 0dB to 33.9dB

House ID	ITM	ITM	Predicted Noise Impacts LAeq, 1hr, dB
	Easting	Northing	
H43	517767	837579	5
H44	517742	837383	5.7
H45	515873	833236	33.9
H46	516625	836322	12.5
H47	517758	837737	4.4
H48	516764	835557	16.7
H49	517632	838261	0
H50	517628	837100	7

I Object under the following In section 11 Noise on page 12 By The documents own admission "current scientific knowledge is such that AM cannot be predicted at the

planning stage, but can only be measured once the windfarm becomes operational” how are we expected to live and sleep when the developer confirm they cannot predict at the planning stage what AM we are to be subjected to. They confirm that once the WF is built they will have to measure the AM. Is it not reasonably practicable for us to expect an accurate representation of what to expect rather than just saying they will measure after the WF is in Place.

We object on the following grounds.

The WHO recommend Maximum background noise of 35 decibels(dBA) for classroom for effective learning The WHO Shows how noise affects sleep and cardiovascular and metabolic function and reducing noise is one of the EuZero Pollution Action Plan.

With reference to the developers report at a wind speed of 8m/s the dBA levels are 0.7 dBA Over the permissible level As you can appreciate wind speed can be much higher in this area with a resulting greater Noise level for the students in the school, but the developer has stated in table 11.18 a predicted noise level of 45dBA with a reduction of 7.3 Giving a potential dBA level of $45 - 7.3 = 37.7$ which directly conflicts with the data on page 37 of the EIAR Giving a dBA level of 35.7 reminding the reader that the WHO recommend background noise for a school of 35 dBA.

With reference to peer review journal “ A procedure for deriving wind turbine noise limits by taking into account annoyance Science of the total Environment 2019 A wind turbine limit of 43.1 dBA is derived and this is also highlighted in the report by the developer, but they continue to use the 45dBA noise level

The WHO recommend that the population should not be exposed to levels of external noise at night above 40 db. Once the board examine the data given it clearly shows many receptors over this noise level. And the developer talks about a complaints procedure that seems extremely unlikely to work when people are deprived of essential sleeping time. (Also please review the area designation as a quiet area. And not an area of background noise the sample taken of location for the Noise report are not representative of the required data for the proposed site and all can be related in some way back to the personnel who have beneficial interest in the project.

The WHO has stated that background noise in classrooms should not exceed 35 dBA for optimal learning conditions research evidence shows that noise does have an effect on children’s performance at school, with older children appearing to be the most affected by noise The Effects of Noise on Children at School a Review, Bridjet M Shield et al., J. Building Acoustics 10(2)-106 2003.

I would ask ABP to review the following data carefully and object under the following.

Data given from the developer for wind speed in our home area is as follows

In the below data table 11.16 **The units specified V117 for the location are capable and designed for operating in high wind up to 25M/S.**

Table 11.16: Predicted Noise Levels as LA90 at Varying Wind Speeds from the Proposed Development

	ING	ING	4 m/s	5 m/s	6 m/s	7 m/s	8 m/s	9+ m/s
House ID	Easting	Northing	dBA	dBA	dBA	dBA	dBA	dBA
H1*	515110	837466	38.2	42.3	46.1	48.4	48.7	48.7
H2*	515526	833767	35.3	39.4	43.2	45.5	45.8	45.8
H3	516227	836339	34.4	38.5	42.3	44.6	44.9	44.9
H4	514628	834072	33.3	37.4	41.2	43.5	43.8	43.8
H5	516241	833804	30.4	34.5	38.3	40.6	40.9	40.9
H6	515489	833504	32.6	36.7	40.5	42.8	43.1	43.1
H7	517503	837983	31.2	35.3	39.1	41.4	41.7	41.7
H8*	515450	832962	33.3	37.4	41.2	43.5	43.8	43.8
H9	515080	831996	30.3	34.4	38.2	40.5	40.8	40.8
H10	515456	833467	32.6	36.7	40.5	42.8	43.1	43.1
H11	516561	837118	33.4	37.5	41.3	43.6	43.9	43.9

From the Vestas V117 Data sheet below. V117 is designed for high wind speed locations and operation.

The turbines Kick in at 3 M/S but can operate at wind speed up to 25M/S and if this wind turbine speed is exceeded it cuts out, and the turbine can cut back in at 23m/s. Then why does the developer not include this information in the above tables. The data above shows a steady rise DBA when graphed against wind speed between 4M/S and 8 M/S but there **is no data for high wind speeds that we will encounter at our home locations.**

The Proposed WF is located in a coastal area in north mayo with the proposed WF on a hill beside a salt marsh. When you look at met Eireann data wind speeds **force 5 fresh breeze (9 M/S is exceeded between 30 to 35% of the time**

When you interpret the data above the DBA level increases steadily but there is no data available for operating in higher wind speeds at up to 2.5 times the data given for operating such a Wind turbine.

If these units are designed for high wind speed locations, then the number of rotations will increase in the same order of magnitude, and the shadow flicker must be investigated further for such an elevated location for in particular. As states in the beginning of this objection risk does not diminish with viewing distance, and flash frequency is the critical factor. (The wind speed at this location will be clearly above normal and so the shadow flicker will be above normal this is not clearly defined in any of the data submitted Again I would respectfully ask the Board to complete a separate

investigation this matter further as we live at such an elevated site on the coast of the Atlantic.

POWER REGULATION OPERATIONAL DATA

Pitch regulated with variable speed

Rated power	4,000/4,200kW
Cut-in wind speed	3m/s
Cut-out wind speed	25m/s
Re cut-in wind speed	· 23m/s

Extracted from V117 WT data sheet why does the data show between 4 and 9 M/S and not up as far as the possible operating limit of the equipment?

The most recent information in relation assessing AM comes in the IEC TS 61400-11. The scope of this document includes an assessment of the sound characteristics of the noise and relies on the Institute of Acoustics Reference Method (IoA RM) to quantify the AM level along with the WSP Phase 2 Report which identified a penalty scheme as shown **Plate 11.1** below.

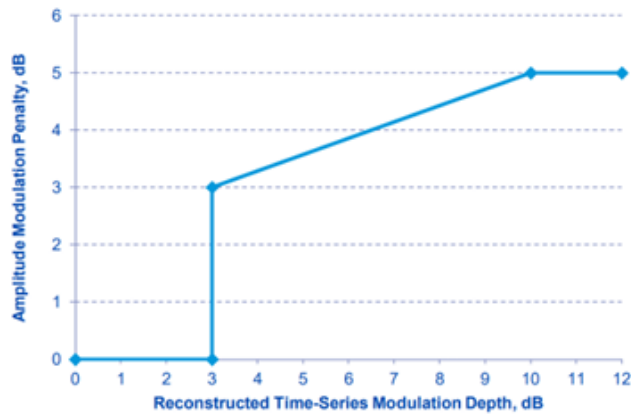


Plate 11.1: Proposed Penalty Scheme

Current scientific knowledge is such that AM cannot be predicted at the planning stage, but can only be measured once the wind farm becomes operational. •

The above is extracted from the Noise Section of the report and specifically states that the AM cannot be predicted at the planning stage so how can the developer say it is safe for a community to live around the foot of such a development when it cannot be measured. With Respect ABP must investigate such a coastal location with recorded high wind speeds, especially towards the Gasebo Side of the development.

I would ask the inspector to review this error in the document. the data in technical appendix 11.1 and page 30 the Sound curve: sound optimization curve SO2 which gives a linear increase in DBA levels up to 13 M/s and then you review the above data which show the DBA level does not increase after 10 M/s then the data shows that we arrive at exactly 43 DBA how can this be if the DBA level continues to increase as they have given us the data in Appendix 11.1

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Reference below from page 30 Wind energy guidelines 2006

In general, a lower fixed limit of 45 dB(A)¹⁰ or a maximum increase of 5dB(A) above background noise at nearby noise sensitive locations is considered appropriate to provide protection to wind energy development neighbours. However, in very quiet areas, the use of a margin of 5dB(A) above background noise at nearby noise sensitive properties is not necessary to offer a reasonable degree of protection and may unduly restrict wind energy developments which should be recognised as having wider national and global benefits. Instead, in low noise environments where background noise is less than 30 dB(A), it is recommended that the daytime level of the LA90, 10min of the wind energy development noise be limited to an absolute level within the range of 35-40 dB(A).

As the area must be designated as a very quiet area the above LA90 10 Min limit of 35-40 dB(A) must apply

I would urge ABP to ensure an independent survey is completed under the rules of natural justice for such a Quiet area.

Reference EPA docs on noise levels.

Using data for Belmullet and Carrowmore Lacken is probably correct as they share the same latitude etc.

But the site-specific data will change drastically with home orientation exact distance from the turbine and changes in specific topography. These units are 135M in a community whose church is 11m high and the vast majority of home are single storey homes.

The Board must look at this recent research carefully to ensure they have done what is reasonably practicable and they are doing the right thing in Particularly for the health and wellbeing of the community scattered around this WF.

In further research. by Dr. Ursula Bellut-Staeck reveals that this constant transmission of pressure fluctuation can pass through buildings and walls which impact on endothelial cells of the human body which can lead to further health problems. Dr. Ursula Bellut-Staeck July 27 2025 Journal of clinical medicine, April 2025.

This development should not be given permission as the methods and results from the noise monitoring are not in line with the most recent peer reviewed journals on this matter.

There is a growing body of research some as far back as 2011 With Dr. Sara Laurie, MD, February 10 2011, cf” Submitted to the Australian Federal Senate Inquiry on rural wind farms giving a setback of 10KM to human habitation.

We object on the following grounds.

The WHO recommend Maximum background noise of 35 decibels(dBA) for classroom for effective learning The WHO Shows how noise affects sleep and cardiovascular and metabolic function and reducing noise is one of the EuZero Pollution Action Plan.

With reference to the developers report at a wind speed of 8m/s the dBA levels are .7 dBA Over the permissible level As you can appreciate wind speed can be much higher in this area with a resulting greater Noise level for the students in the school, but the developer has stated in table 11.18 a predicted noise level of 45dBA with a reduction of 7.3 Giving a potential dBA level of $45 - 7.3 = 37.7$ which directly conflicts with the data on page 37 of the EIAR Giving a dBA level of 35.7 reminding the reader that the WHO recommend background noise for a school of 35 dBA.

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Effects of Noise on Children at School a Review, Bridget M Shield et al., J. Building Acoustics 10(2)-106 2003.

It is in an area of outstanding natural beauty adjacent to a proposed natural Heritage area and a Special Area of Conservation the views are world rebound.

The data provided by the developer shows levels above this recommended level.

Conclusion

I Would respectfully ask the Inspector and Board to review all the documents submitted and view what is submitted for a coastal elevated community in one of the most diverse and historical areas of the world this application has been rushed to squeeze in before correct guidelines are in place for the BESS and for offset distances from homes to turbines remember we are a community and not receptors. There are so many inaccuracies and the site layout clearly demonstrates the development 7-8 KM in the incorrect coordinates at Ballycastle pier how can any be expected to make a decision on their home data when this detail cannot be shown clearly again.

I also wish to adopt and support the detailed submission made by the Lacken Ballycastle Community landscape protection group in relation to the Wind farm development TPAX16.324258) in particular I endorse the concerns raised regarding cumulative wind farm developments across north mayo, impacts on the Ceide Fields Cultural Landscape, effects on tourism and recreation, biodiversity impacts inadequacies in community consultation and the assessment of the BESS, I do not repeat I respectfully request that they be considered as forming part of my submission.

I would appreciate your consideration of all these objections.

Yours sincerely,

Patrick Kearney

References

[1] Council Directive 92/43/EEC (Habitats Directive), Article 6(3); European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011), Regulation 42.

[2] Directive 2009/147/EC (Birds Directive), Articles 4–5; S.I. No. 477/2011, Regulations 27–30.

[3] Directive 2011/92/EU as amended by Directive 2014/52/EU (EIA Directive), Articles 3 and 5; Planning and Development Regulations 2001–2018, Part 10.

[4] Directive 2000/60/EC (Water Framework Directive), Article 4; European Communities (Water Policy) Regulations 2003 (S.I. No. 722/2003).

[5] Directive 2002/49/EC (Environmental Noise Directive); Environmental Noise Regulations 2018

(S.I. No. 549/2018).

[6] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention), Articles 4–6; EIA Directive Article 6.

[7] Treaty on the Functioning of the European Union (TFEU), Article 191 (precautionary principle);

Convention on Biological Diversity, Article 14.

[8] Convention on Migratory Species (Bonn, 1979); Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), Article II.

[9] Planning and Development Act 2000 (as amended), Section 34(3).

[10] Planning and Development Regulations 2001–2018, Part 10 and Schedule 6 (EIA content).

[11] European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011), in

particular Part 5.

[12] Wildlife Acts 1976–2018, including provisions on protected species and their breeding/resting places.

[13] Local Government (Water Pollution) Acts 1977–1990; WFD transposing regulations including

S.I. No. 722/2003.

[14] Directive 2014/52/EU, Article 3(1)(b) (population and human health); Annex IV(5); EPA Guidelines on the Information to be Contained in EIAR (2022).

[15] WHO Environmental Noise Guidelines for the European Region (2018); Planning and Development Act 2000, Section 34(3)(b).

[16] Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe; Air Quality Standards Regulations 2011 (S.I. No. 180/2011) and subsequent amendments.

[17] Directive 2008/98/EC (Waste Framework Directive); European Communities (Waste Directive)

Regulations 2011 (S.I. No. 126/2011).

[18] EPA Guidance Note for Noise in Relation to Scheduled Activities (NG4, 2016); WHO 2018 Noise Guidelines.

[19] Directive 2014/52/EU, Article 5 and Annex IV (minimum information and methodological

detail).

[20] Planning and Development Act 2000; Road Safety Authority guidance on abnormal loads and

construction traffic (e.g. 2016 guidance).

[21] The Planning System and Flood Risk Management Guidelines for Planning Authorities (DoEHLG/OPW, 2009); Planning and Development Act 2000, Section 28; Limerick County Development Plan flood risk policies.

[22] Directive 2014/52/EU, Annex IV(5)(f) (consideration of vulnerable groups).

[23] EIA Directive Article 6; Aarhus Convention obligations on access to environmental information

and public participation.

[24] Directive 2014/52/EU, Recital 35 and Annex IV(1) (use of up-to-date, authoritative scientific information).

[25] Directive 2014/52/EU, Article 3 and Annex IV(5) (cumulative and combined effects).

[26] Directive 2014/52/EU, Article 5(1)(e) and Annex IV(7) (mitigation); relevant CJEU case law including C-258/11 (Sweetman).

[27] Directive 2014/52/EU, Article 5(1)(d) and Annex IV(2) (reasonable alternatives).

[28] Directive 2014/52/EU, Articles 3 and 8a(1) (assessment and decision-making on significant adverse effects).

[29] Directive 2014/52/EU, Article 5(1)(a) and Annex IV (modelling parameters, assumptions and baseline data).

[30] WHO and EU guidance on health impacts for vulnerable and sensitive populations in environmental decision-making

The Effects of Noise on Children at School a Review, Bridget M Shield et al., J. Building Acoustics 10(2)-106 2003.2008.

Dr. Ursula Bellut-Staack July 27 2025 Journal of clinical medicine, April 2025 Dr Ursula Bellut-Staack appearing at the Alberta Utilities commission as a sworn expert on health effects of infrasound.

Dr. Sara Laurie, MD, February 10, 2001, cf” Submitted to the Australian Federal Senate Inquiry on rural wind farms.

Asbjorn Solberg, Bard-Einar Rimereit and Jan Erik Weinbach, 08/07/ 2021 “ leading edge erosion
anc pollution from wind turbines P15

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