

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

Case reference: PAX91.323780

Date: 18/ 11/ 2025

Re: 10-year planning permission for Ballinlee Wind Farm consisting of 17 no. wind turbines, a permanent 110kV substation and ancillary development. Located in Ballincurra, Ballingayrou, Ballinlee North & South, Ballinrea, Ballyreesode, Camas North & South, Carrigeen, Knockuregare, Ballybane and other townlands in County Limerick.

To Whom It May Concern,

I Anne Marie O' Regan write in connection with the above listed planning application at Ballincurra, Ballingayrou, Ballinlee North & South, Ballinrea, Ballyreesode, Camas North & South, Carrigeen, Knockuregare, Ballybane and other townlands in County Limerick.

I wish to object strongly to this proposal and ask that the Board refuse planning permission.

Introduction

What is the definition of an objection? - A reason or argument offered in disagreement, opposition, refusal, or disapproval.

In typical logical terms, an objection is framed with concise and articulate arguments founded in reasonable terms.

However, not all logical arguments can portray the innate feeling that something is categorically wrong and is intimately felt on a deep personal level.

This proposed development is just such a case, where it is instinctively recognised as something that is fundamentally wrong and at odds with a balanced rural ecosystem and its valued inhabitants.

That said, there are also categoric issues within the planning application and its design, ultimately leading to potential negative impacts on our close knit community.

From my perspective, some of these issues are:

- 1) **Design leading to potential negative health effects**
- 2) **Impact on biodiversity and loss of supporting habitat**
- 3) **Natural Floodplain**

1) **Negative Heath Effects.**

This application features 17 Industrial scale wind turbines (16 x 160m, 1 x 150m) intended to be built in area which will tower over many many homes.

Some figures below represent just how close residents in this area will be to this proposed wind power plant:

Total Houses within 1 KM of a Turbine – **179.**

Total Houses within 1.36 of a Turbine - **228.**

Total houses within 1.5 KM of a Turbine – **279.**

Total houses within 2KM of a Turbine – Undisclosed in the EIAR.

Within the Shadow Flicker **1.36 KM** radius, there is cause for concern on cumulative impact:

- A significant proportion (**78%**) — are within range of **two or more turbines.**
- **37 homes** are surrounded by **five or more turbines** within that radius, indicating a high cumulative exposure zone.

We have two primary schools and two pre-schools in the community the closest of which is only **1.6km** and the furthest just over **3km** from the proposed wind farm.

We have a special dementia care facility in our community also.

As a result of such exposure to this wind farm, the subsequent negative health effects are many fold.

These include but are not limited to:

- **Infrasound & Low Frequency Noise exposure.**
- **Audible noise exposure.**
- **Chronic Fatigue due to lack of sleep.**
- **Visual stimulation stress.**
- **Cumulative stress effects.**
- **Shadow Flicker.**
- **Blade shedding:**

❖ **Infrasound.**

As of 2025, due to extensive academic research, it is now without doubt that infrasound and continuous exposure leads to varying degrees of biological issues.

Scientists such as Professor Mariana Alves Pereira, Professor Ken Mattsson, Dr Ursula Bettut Staeck and others have dedicated vast amounts of time and resources evaluating the cause and effects of infrasound.

So, what exactly is infrasound?

Infrasound refers to sound waves with frequencies lower than 20 Hz, which are inaudible to the human ear. These low-frequency sounds can travel long distances with little energy loss and are produced by various natural and artificial sources. Infrasound is considered inaudible to humans and refers to acoustic events that occur at or below 20 Hz.

Infrasound differs from audible sound in two important aspects, its wavelength and its rate of attenuation.

Why is this important to understand?

It is important to be able to distinguish between audible and infrasound acoustic properties as both have different characteristics that interact with human tissue/senses.

To refer to the infrasound research of Professor Mariana Alves Pereira and the International Acoustics Research Organisation (IARO)

One year after the wind farm went live a study was conducted by IARO on a rural sheep farm in Scotland in 2022 and 2023. This study included 1000s of hours of high-resolution recordings.

It recorded the continuing presence of WTAS (Wind Turbine Acoustic Signatures) which are pressure pulses 20 dB above environmental background level, and that characteristically emanate from industrial wind turbines within the infrasonic range.

The current situation for residents in this area is:

- Rural Sheep Farm residents are forced to remain in a noxious and toxic environment.
- Three hospitalizations were required for 2 of the residents in 2023.
- Livestock are developing unexplained reproductive and behavioural problems.
- Vulnerable residents are unprotected and ignored (autistic child, history of autoimmune diseases).
- Ongoing reporting of unresolved debilitating health impacts continues.

A local General Practitioner stated in relation to the residents *“have been experiencing a significant impact of noise pollution from the nearby windfarm. The impact is such, that it is has caused considerable physical and mental health issues.*

Furthermore, a local child *“diagnosed with high spectrum autism at age 2, has seen her behaviour greatly and seriously aggravated, causing a devastating impact on the entire family.”*

Source: Rural Farm Health Report — REDACTED - Final

This is further confirmed by the research of **Dr Ursula Bellut Staek.**

“For the first time, the symptomatology of chronically infrasound exposed humans and animals can be classified pathophysiologically in a coherent hypothesis. This was made possible by the progress in knowledge of endothelial mechano-transduction, essential as vascular function of vital character in response to mechanical forces”

Source: Impairment of the Endothelium and Disorder of Microcirculation in Humans and Animals Exposed to Infrasound due to Irregular Mechano-Transduction

Research in this field has been ongoing for many years by these esteemed academics, however in 2025, further breakthroughs in infrasound modelling and measurements were presented by Professor Ken Mattsson of Uppsala University, Sweden.

Referring to his November 2025 research paper **Efficient finite difference modeling of infrasound propagation in realistic 3D domains: Validation with wind turbine measurements**, Mattson concludes:

The results emphasize the crucial role of realistic atmospheric data, which must be incorporated to obtain trustworthy predictions of sound propagation over long distances.

This study also shows that modern, large-scale wind turbines generate infrasound levels substantially higher than those reported for older, smaller turbines. These findings enhance the understanding of the acoustic characteristics of contemporary wind turbines and provide valuable guidance for environmental assessments and policy-making.

The research being conducted by professionals of this calibre and the results presented **MUST** be taken seriously when evaluating WF designs and validating appropriate locations for these facilities.

❖ Audible Sound

In combination with the production of infrasound is the audible pulsating sound that is produced by turbines. These audio pulses are generated as wind turbine blades push compressed air in front of the turbine hub. This incessant effect is distinctly heard and as per the noise modelling software developed by Professor Mattsson, the projected dBA levels suggested by the developer are often grossly understated. When we consider that Professor Mattsson is suggesting that current noise modelling software platforms do not account for all variables such as atmospheric conditions, we need to ask, is he correct?

We only need to refer to legal cases in Ireland (Webster & Rollo / Shorten & Carty v Meenacloghspar (Wind) Ltd) to recognise that current acoustic modelling failed to live up to its predictions.

To quote from a submission to the Australian Senate's Select Committee on Wind Turbines by Professor Emeritus Alun Evans 2015.

"According to the World Health Organisation's recent report, 'Night Noise Guidelines for Europe,' environmental noise is emerging as one of the major public health concerns of the twenty-first century. It observes that, "Many people have to adapt their lives to cope with the noise at night," and the young and the old are particularly vulnerable. This is because hearing in young people is more acute and, in older people, a loss of hearing of higher sound frequencies renders them more susceptible to the effects of low frequency noise. It is a particularly troublesome feature of the noise generated by wind turbines due to its impulsive, intrusive and incessant nature."

Additionally, from the same submission, "The major adverse health effects caused by wind turbines seem to be due to sleep disturbance and deprivation with the main culprits identified to account for this being loud noise in the auditory range, and low frequency noise, particularly infrasound."

As wind farm developments are pushed more and more into centralised rural communities the negative effects and impacts of these communities are become very evident very quickly.

This is far from a sustainable model of energy production that is balanced and considerate of peoples lives.

An absolute and undeniable truth behind about developments of this scale, is the levels of stress that is induced in the community as a result.

❖ Stress

According to the WHO:

*“Stress makes it hard for us to relax and can come with a range of emotions, including anxiety and irritability. When stressed, we may find it difficult to concentrate. We may experience **headaches** or other **body pains**, an **upset stomach** or **trouble sleeping**. We may find we lose our appetite or eat more than usual. Chronic stress can **worsen** pre-existing health problems and may **increase** our use of alcohol, tobacco and other substances.*

*Stressful situations can also cause or **exacerbate** mental health conditions, most commonly anxiety and depression, which require access to health care. When we suffer from a mental health condition, it may be because our symptoms of stress have become persistent and have started affecting our daily functioning, including at work or school.”*

Stress is an occasional response to different difficult situations and can be managed when these periods of time are short lived.

This however is a completely different stress inducing situation and one with no end date in sight.

From the first moment the intention to build this power plant was discovered the stress response began.

The uncertainty of the scale of the development, the uncertainty of the impact.

The realisation then that this developer had been in the area for a number of years surveying without our knowledge further exacerbates the stress levels. A narrative is then portrayed around positive community engagement when the planning application is submitted, and this is considered a reasonable process to include the community! What is the purpose? How does the community participate in the development of its own environment when decisions are taken out of its hands?

Stress levels at this point begin to increase, not just for me and my family, but for the community as a whole.

Once the application is submitted, we are provided with a tiny window of opportunity to review years' worth of documentation in an effort to gain an understanding of the actual scale of the project and it's impacts. This process is fundamentally flawed and runs against the grain of true community involvement and engagement.

How is it possible not to be stressed and concerned at the deepest level when we are faced with an imposition of this magnitude? How is it possible not to suffer health consequences as a result? Refer to the WHO statement above!

The only course of action at this point is to evaluate the scope of the project to gain a better understanding of what it actually involved.

It becomes unfortunately a lot more stressful at this stage.

How will the audible and infrasound exposure affect us?



Just one look at this Appendix 13E - Cumulative Colour Noise Contour Plot is enough to induce serious stress levels.

How can it be deemed acceptable to suggest that my family and I live in this environment for the next 35 years!

What about shadow flicker exposure?

The developer will say that no home will be subject to shadow flicker or certainly not beyond a certain hour limit per year?

How is this any way accurate when the SCADA software itself will not accommodate for all variables?

If mitigation measures are then suggested that certain turbines will be shut down if exceeding exposure levels are occurring then how is this a viable production plant?

Turbine Blade Shedding

To add to the concern with audible sound, infrasound and shadow flicker, we now have to contend with the revelation of **Microplastic shedding from turbine blades** and the toxic consequences.

“Microplastic shedding from turbine blades, known as Leading Edge Erosion, is a great concern to manufacturers who are forced to repair the damage that occurs after only a couple of years. The particles eroded from blades include epoxy which is 40% Bisphenol-A (BPA), a frequently banned endocrine disruptor and neurotoxin. Academic research has shown the potential for 137 pounds of epoxy microparticles to be shed per turbine per year.”

Toxic Blade Time Bomb - WIND CONCERNS

Research published in *Nature Partner Journals Ocean Sustainability* at the end of January found that the chemicals used to protect turbine blades from corrosion leach “thousands of tons of metals such as aluminium, zinc, and indium” every year, enough to reach toxic levels.

The researchers estimated that current annual amounts of metals shed from blades at operating European offshore wind facilities to be high enough that, when taken up by seaweed and shellfish, “could exceed safe limits for human consumption.”

Such “accumulation in seafood is a major human exposure route,” the study notes, further stating that “...high tissue concentrations in oysters, mussels and kelp...” could “greatly exceed” the “tolerable weekly intake” for an adult.

The Toxic Fallout from Wind Turbine Blades ‘Should Not Be Underestimated’

According to the NGO “The Green Warriors of Norway”, One of our main concerns regarding BPA, as an environmentally potent toxin and hormone disruptor is that it poses a significantly bigger hazard for, not only, the human body, but also for the ecosystems than had previously been known. Not only the substance itself in its pure form as a “protected” compound inside particles release to the environment.

It is unreasonable to design an industrial plant of this scale and subject the surrounding inhabitants to such risks.

Again, to quote from Professor Alun Evans, “Even the current planning process with it’s virtual absence of consultation, is stress inducing, as is the confrontation between landowners, who wish to profit from erecting turbines, and their neighbours who dread the effects.”

All of the above has a net effect of introducing stress levels to such an extent that it can strain household relationships, impair the health and wellbeing of people living in the area and fundamentally destroy lives that were built on the premise of enjoying their lives in their homes and surrounding rural environment.

2) Impact on Biodiversity and loss of supporting habitat

A design of this nature can only lead to negative consequences for the diverse species that inhabit this environment.

How can removing vast amounts of hedgerows, treelines, grassland etc be a positive development for our precious ecosystem?

How can building over 10km of access tracks, not to mention the intrusion of 17 giant turbines and associated infrastructure be a positive development for our ecosystem?

This application suggest it will provide a new foraging field for our Scandinavian Whooper Swans that every year come to visit and feast in our beautiful Corcass area of Rathcannon.

Will the Swans be given prior notice of this?

Will they know to ignore two years of construction noise, lights, etc?

Will they know not to crash into rotating turbine blades in low light and foggy conditions?

How about all the other species?

Will all the red/amber listed bird species get the same message?

How will the otters fare in the Morning Star river when construction traffic, pile driving, rock breaking is disturbing their natural habitat?

How will the Badgers fare when some of their setts are destroyed?

Where will they live when the setts and the hedgerows are gone?

This is what the developer is acknowledging in their application, **loss of habitat and destruction of setts.**

How will the bats now navigate when hedgerows have been removed and the lose their ability to follow linear paths?

What is the mitigation plan for the **Lesser Horseshow Bat** which was acknowledged in the EIAR?

Is there any protection for the inhabitants of the Morning Star river and their environment when there is spillages and pollutant runoff into the river?

What about when the area floods and the river overflows, turning green fields into a landscape of lakes.

Just this November 2025 we witnessed yet another flooding of the rathcannon, north camas area.

3) Natural Floodplain

As just mentioned, the north camas area regularly floods as evidenced by the following drone footage taken on 12/11/2025



Ballinlee WF Location

Does this land look suitable for industrial construction works?

Does it look like it can support hundreds of tons of concrete and the massive weight of turbines?

Consider the pollutant run off into the river and carried downstream into the Maigne River and potentially downstream to SPA territory.

Consider the cumulative impact when we see flooding events on the banks of not 1 but 2 proposed windfarms.

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Ballinlee WF on the banks of The Morning Star.

Garrane WF on the banks of the Maigue & Loobagh rivers.

Map Source: [EPA Maps](#)



Flooding in the Bruree area where the Garrane WF is proposed.

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The two locations are clearly linked by both rivers which ultimately feed into the River Shannon and river Fergus Estuaries SPA.

I strongly urge that the planning authority seriously consider all of the above and determine that this is indeed a wholly unsuitable area and environment to erect an industrial scale wind generation plant.

Kind Regards,

Anne Marie O' Regan

Ballinrea,

Bruff,

Co. Limerick

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