Our Case Number: ABP-318446-23

Planning Authority Reference Number:

An Bord Pleanála

Elizabeth Alderton
Bleantasour
Ballinamult
Co. Waterford
E91 Y462

Date: 30 January 2024

Re: Proposed construction of Coumnagappul Wind Farm consisting of 10 no. turbines and associated infrastructure.
In the townlands of Coumnagappul, Carrigbrack, Knockavanniamountain, Barricreemountain Upper and Glennaneanemountain, Skeehans, Lagg, Co. Waterford.
(www.coumnagappulwindfarmSID.ie)

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Board will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Board or email sids@pleanala.ie quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,

pp HCM

Niamh Hickey
Executive Officer
Direct Line: 01-8737145

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Ms. E. Alderton
Bleantasour
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Waterford County Council

Planning Department

26th January 2024

Submission on Application number **PA93.318446**

Proposed construction of Coumnagappul Wind Farm consisting of 10 no. turbines and associated infrastructure.

In the townlands of Coumnagappul, Carrigbrack, Knockavanniamountain, Barricreemountain Upper and Glennaneanemountain, Skeehans, Lagg, Co. Waterford. (www.coumnagappulwindfarmSID.ie)

Dear Sirs

I wish to object to the Proposed Wind Farm at Coumnagappul, Knockavannia, Milk Hill, Glenanneane

Having carefully considered the evidence I believe that the Coumnagappul Wind Farm would be detrimental to the

- **The community**
- **The habitat, flora and fauna including birds on the protected list in the European Union**
- **Water resources both for water supply and flood and drought prevention and management**
- **The tourism industry**
- **Landowners who have taken part in the project (see Section E)**
- **Wind speed is insufficient to make such a project viable**

A. Land type

Internationally protected peatland sequestering Carbon. Carbon is released by any disturbance. For this project the carbon cost from ONLY the trackways is 304 tons per

annum. Additional release is incurred by construction, transport and erection of turbines.

Water services freely provided by the peatlands will be contaminated and disrupted including:

loss of water quality
flood prevention
drought prevention and mitigation

A major part of the proposed wind farm is on Knockavannia. This is recorded as unregistered land: 'Turbary' in the Land registry. It is clear that this area has historically been rich in peat resource.

B. Habitat and Fauna

Evidence of internationally rare and protected species are found in this area. For example:

Hen Harrier
Golden Plover
Common Frog

The proposed wind farm would be located within 700 meters of an existing SAC. It would cause significant disruption to habitat, breeding and hunting areas for these protected birds, thereby **breaching European law**.

Since 2020, large-scale out of season burning has degraded the habitat for these rare birds.

Empower's EIA collection points avoid the area of Knockavannia and Milk Hill. The data gathered does not therefore give information about the land type that will be affected.

C. Peatlands and mountain slopes vital for water quality, flood and drought prevention

Coumnagappul Wind Farm Site is situated on wetlands and mountain slopes providing a water source to Colligan and Nire rivers
Blue dot area exists closeby north and downhill of Knockavannia and the ridge to the north of Coumnagappul
The Colligan river, providing clean water to Dungarvan rises in Coumnagappul and flows throughout the proposed site.
Aquifer situated in the area is recorded on Waterford County Council plan. This provides pristine drinking water for the community wells which requires NO ADDITIONAL TREATMENT.
Flood and drought prevention will be disrupted (note that the area PREVENTS flooding downhill of the site, this is vital in water management)

D. Burning targeting the Coumnagappul Wind Farm Site

AFTER the proposed wind farm was suggested in 2019, widescale burning of large areas of Glenanneane, Carrigbrack, Knockavannia, Milk Hill and Bleantasour mountain townlands was carried out.

Subsequent EAR surveys are invalid, since habitat needs decades to recover. The EAR confirms this problem describing the area is 'already degraded' by burning. This never happened prior to the proposal of the Wind Farm.

E. Cost of decommissioning and any restoration required

A recent report (from Sweden) has stated that if a company is sold, such commitments may not be honoured. The cost of decommissioning and any other environmental costs are often made the responsibility of the landowners. These reports show that those landowners were unaware of the possibility of this happening, and some have been made bankrupt.

F. <u>Visual Effect on Tourism, Disruption to business and loss of income</u>

We own a cottage for rental (self-catering or longer term). Many families in the Eastern and Northern parts of the Comeraghs have long established businesses and others are working to increase tourism. These will all lose income since tourism will be adversely affected by the visual impact and destruction of natural beauty, habitat, wildlife – the very things visitors come to Ireland to see.

From the top of Knockavannia and the ridge above Coumnagappul you can enjoy uninterrupted views of Coumfea, the Nire Valley, the Knockmealdowns to the West and south towards Seefin and Dungarvan.

From all those areas a person would have their view spoiled by wind turbines.

From the scenic driving and cycling routes of the Comeragh and Knockmealdon drives these wind turbines would obstruct the natural beauty of the mountains.

Walking routes across the Comeragh ridge (Mama pass to the NIre) and within the Nire valley will be adversely affected.

Waterford County Council have wisely designated the area of the proposed wind farm MOST SENSITIVE and an EXCLUSION zone for wind farms.

G. Wind Speed is insufficient with a yearly <u>average</u> of only 4.6 m/s at 100 metre hub height.

I walk on the mountain overlooking Coumnagappul almost every day. The area has comfortable low wind speeds and is a fabulous place to enjoy the unspoilt scenery. On the few days when wind speed is suitable for power generation, it is so unpleasant that I would avoid the area.

Extrapolating to Coumnagappul from a nearby weather station (in a similar SEAI area) average wind speed in the last 28 months is only 4.6 m/s. This is available as open data

(references below), and is confirmed by tree evidence, flora evidence and local knowledge.

Empower's claimed ANNUAL average wind speed of 8.3 m/s at 85m mast height is extraordinary and requires investigation. Such weather conditions would lead to tree flagging (not present), low flora growth (not evident) and would render the area unpleasant for people .
(*For example, the storm on 27th December 2023. The average windspeed at 10 metres that day was 7.8mph 3.5 m/s. It caused widespread damage and power cuts that made the national news.*)

H. Inconsistencies

Site selection and data availability

Waterford County Council identify the area as most sensitive. It is excluded from any Wind Farm Development.
Empower refuse access to their wind data. They claim it is commercially sensitive. This unscientific behaviour precludes the opportunity for any comparison, peer review or replication of the data. The scientific community regard this as unprofessional behaviour. They have good reason, it leads to a loss of public confidence in the whole scientific community. Future commercial partners and government authorities should be made aware of this behaviour.

Surveys

Fauna surveys were positioned to avoid survey of much of the actual area.
EIA Location points do not survey the entire wind farm area and omit vital habitats
Viewpoints do not include important walking routes in the Comeraghs and Knockmealdowns

I. Vandalism

Vandalism took place at an archaeological site
Vandalism was perpetrated on the vehicle of a local resident

All the above are supported by the details below.

J. Detailed comments on Empower's planning application

This list and references below is not exhaustive. It serves only to illustrate Empower's inconsistencies, contradictions, and scientific inaccuracy

K. Access and changes to infrastructure

Coumnagappul Wind Farm Abnormal Indivisible Load Route Survey Microsoft Word - 290623 Coumnagappul RSR.docx (pleanala.ie)

Empower have not provided details of the options they have obtained for

road widening
all third party land options

A. Land Type

Much of the land is internationally rare peatland – designated 'blanket bog' and Knockavannia is land designated 'turbary' (turbary is an area of unregistered land where rights holders were permitted to cut peat for fuel). Historically this area contained large amounts of peat.

Just north and downhill of this area is a blue dot water catchment area protected because highly important ground water.

European Law protects such areas because of the following:

Carbon released by development on peatlands would negate any carbon benefit, likely producing a net INCREASE in carbon release.

Any disturbance in peatlands is to be avoided since it quickly degrades the area's ability to provide free "services for the public good" including:

SERVICES PROVIDED BY PEATLANDS	EFFECT OF DISTURBANCE	TRACKWAYS **ALONE** CARBON COST OF **304 TONS EACH YEAR**
Carbon storage	Disturbance causes Carbon release at the rate of 23.84 tons per year per hectare.	22.85km of new associated tracks will cause release from 12.75 hectares A release EVERY YEAR of 304 tons of carbon.
Carbon sequestration	The natural growth of peatland mosses and other plants that colonize the land draw carbon down into the ground. Estimated at .7 tons per hectare per annum.	Carbon sequestration (estimated at .7 tons per hectare per annum) would cease. A loss of 8.9 tons PER ANNUM
		FINANCIAL CONSEQUENCIES
Water cleansing Flood prevention Drought alleviation	Water will be polluted and unrestrained run off will cause flooding and increase the likelihood of drought conditions	Cost to water companies and councils to fight the effects of this devastation

These are LOW estimates

- Most trackways will require cutting into the mountain owing to the slope. This will increase emissions from track construction and yearly release of carbon from disturbed peatland.
- Disturbance also drains surrounding peatland causing further release from the surrounding area up to 100m. This is NOT included in the carbon costs given above since it is undetermined.
- It does NOT include the carbon cost of the construction of such things as: turbines, hardstanding, transport, public infrastructure changes.

Wind farm development in boglands and peatlands is now being seriously questioned by the scientific community worldwide. Instead of using outdated, damaging technology Ireland should lead the way in restoration and natural CO2 management.

"Peat is lost when the foundations for the turbines are dug out but it is the building of the roads that are the biggest risk to the peatlands, said Mr Lindsay, as they cut across their natural water functions, causing them to dry out."(Lindsay, WindAction)

Quotations and References given below

B. Habitat, Flora and Fauna

The quality of habitat, flora and fauna is not simply an aesthetic choice made by those who like to look at nature. It is an essential measure of the quality of a nations progress in repairing the huge damage that continues to be made to the environment.

Coumnagappul Wind Farm is in the Comeragh Mountains. A large part of this mountain range is designated an SAC by the National Parks and Wildlife Services. This is to be further enlarged as a Natural Heritage Site. The ONLY mountain area in County Waterford with this status. The rare Hen Harrier and Peregrine Falcon breed in this area, and the site forms part of their habitat. Other rare animals are observed by locals including Golden Plover and the Common Frog.

Flora

An environmental impact report carried out post 2019 is invalid owing to the widespread extensive burning of the area (see below). Such a report should be carried out following full regeneration of the habitat and species.

Many decades of undisturbed growth are required prior to conducting any GENUINE site assessment.

Fauna

HEN HARRIER

National Survey of Upland Habitats (Pilot Survey Phase, 2009-2010) Site Report No. 3: Comeragh Mountains cSAC (001952), Co. Waterford (Revision) states: "a Merlin (Falco columbarius) near Crotty's Lough and a Hen Harrier (Circus cyaneus) near Farbreaga. One pair and two separate individuals of Red Grouse were recorded in bog in various parts of the site. An Irish Hare (Lepus timidus hibernicus) was observed among peat haggs on the plateau. The abundance of frogspawn in wetter areas on the lower slopes reflects the presence of the Common Frog" SPEU09_Comeragh_Mountains_Report_01b_M.pdf (npws.ie)

See also:
Irish Hen Harrier Survey
And
Fehily Timony' s own report

C. Peatlands and mountain slopes vital for water quality, flood and drought prevention

"Wind farms on relatively intact and vulnerable upland sites have irreversible ecological effects. Even though the infrastructure footprint can be relatively small, drainage and fragmentation effects can affect a much larger area." Renou-Wilson, Florence & Farrell, Catherine. (2009). Peatland vulnerability to energy-related developments from climate change policy in Ireland: the case of wind farms. Mires and Peat. 4.

Proposed Coumnagappul Wind Farm is situated on peatlands, mountain slopes and a valley basin. These provide water source to Colligan and Nire rivers.

These rivers are major sources of clean drinking water for the population of Dungarvan, County Waterford. (Colligan river source), and Clonmel (Nire River source)

The foundation works required for windmills along with the track structure require large amounts of concrete. This will adversely affect water movement in the area and will pollute the rivers and aquifer, affecting households downstream of Coumnagappul. Concrete manufacture is the biggest contributor to global warming out of all mankind's activities.

For example:

The new tracks and roadways will extend over a distance of 25.43km and these alone would cause drainage of the peatland from at least 12.75 hectares (25.43km x 5 metres width = 127,150 square metres = 12.75 hectares).
Just this one part of the construction will adversely affect the water quality which runs from the mountains to the Colligan and the Nire.

"Not only does soil act as an important resource for growing plants and animals, but it also absorbs water during periods of heavy rainfall. Concrete can't absorb water, meaning that when it rains on concrete water tends to flow from place to place". (concretequestions)

The mountains along with their soft coat of peatlands are vertical reservoirs. Through the valleys the pure clean rivers run. They provide FREE water services which should be appreciated and protected. These include:

Clean drinking water
Flood protection

Drought protection

The cost of providing these services after such degradation has not been included in the project cost.

Quotations and References given below in Section C

D. Burning targeting the site

Since the Wind Farm was proposed, burning of the proposed site area has intensified particularly in the areas where endangered species breed and hunt.

An immense area of Glennaneane was burned in May 2021 illegally out of season.

Bleantasour and Glennaneane mountains were burned March 30th 2022 illegally out of season.

Knockavannia and Milk Hill were burned September 1st 2022. This was just within the allowable burning time. However, weather had been exceptionally dry and there was huge destruction, including the bogland area of Milk Hill.

Environmental impact reports are invalid because they were carried out AFTER these actions. Species of fauna have fled, and flora is in a degraded condition.

Heather height became ground level, whereas it can be noted that in areas that escaped burning, the heather height is thigh high – which INDICATES LOW WIND SPEEDS.

Breeding habitat of rare red listed birds was destroyed.

These illegal actions facilitated an EAR report that falsely favoured wind farm development. Such actions have led to imprisonment of some people in areas of Ireland. It would be contrary to Irish and European law for this report to be accepted in view of the above culpable behaviour that benefits only those seeking to profit from the Coumnagappul Wind Farm development

Please study pictures provided below.

E. Cost of decommissioning and restoration

"A wave of bankruptcies now threatens wind power in Sweden. And the bill for dismantling the works and restoring nature can land on the landowner"

https://nyheter.swebbtv.se/vindkraften-gar-i-konkurs-agare-tommer-bolag-och-markinnehavare-far-betala/?fbclid=IwAR02je1AQGLo72YBU7ENXUFwLkBtI6y-GFp7_6-M9Tq0blbDDILFKMEN5kk

"Wind turbines situated on a hilly terrain experience wind loads considerably different than it is the case for wind turbines on a flat terrain, e.g. Botta et al., 1998, Mouzakis et al., 1999. This may cause damage, collapse and shorter lifetime of wind turbines in terrain that consists of mountains, hills, valleys, escarpments and other irregularities"

https://www.sciencedirect.com/science/article/abs/pii/S0167610517306372

F. Visual damage causing Effect on Tourism, Disruption to business and loss of income

Scenic road and cyclist routes

Proposed Coumnagappul Wind Farm is clearly visible from a number of scenic road routes including the Comeragh and Knockmealdown drives.

From the main Dungarvan/Clonmel road, Coumnagappul and its unique horseshoe shape stands out as a jewel in the area, providing a beautiful counterpoint to the higher mountains to the East and North.

Walking and hiking routes

Waterford County Council have targeted making County Waterford the 'walking capital of Ireland'.

Some routes go through the proposed site area of the land of Knockavannia and Milk Hill. Access has already been denied in privately owned Coumnagappul. These routes will be forever lost and contaminated.

Many hikers enjoy the ridge routes high on the mountains of Seefin and Coumfea to the East. From these routes Coumnagappul is clearly visible and visually attractive.

Walkers on all the Nire Valley routes to the North will view the wind farm at Coumnagappul .

Walkers on the long distance Munster Way will have clear views of the wind farm from within 20km.

Walkers and cyclists do not just flash past in a vehicle. They take their time. They will be looking at this wind farm for many hours at a time. They will be very disappointed in their visit to County Waterford. They will choose another location.

Visitors will have their enjoyment spoiled by the clear view of these wind turbines: they will visit different places for their holidays. Many residents have invested heavily in tourism, and these will lose business and money.

We have ourselves taken international guests along these routes and they have expressed their joy and excitement at the remote, unspoilt delights of the area. As an example, one couple commented that they had never been to a place where they could not hear manmade noise.

This opportunity will be forever lost to future generations.

Proposed Natural Heritage Area

The proposed Coumnagappul Wind Farm will be clearly visible from many locations within the Proposed Natural Heritage Area.

Pictures showing the visual impact of the Coumnagappul site and Quotations from Booking.com for our own property given below

G. Wind speed

Calculated from the available data at Ballinamult, average annual windspeed at the Coumnagappul Wind Farm, at 100 meter height over 28 months is only 4.6 m/s – details below.

The yearly average windspeed is insufficient. Only 4 days over 28 months give sufficient average windspeed to produce 8.3 m/s (measured at hub height), and, of course, this is of an intermittent nature.

NO MONTHS in 28 months data shows an average windspeed high enough for 8.3 m/s at hub height

NOTE

Wind speed data (see also full data below)

Empower has refused access to the data from the wind speed mast erected by Empower. What genuine scientific body would refuse access to its data?

There is, however, data from a Met Eirann weather recording station at Ballinamult (7km west). This is within the same SEAI wind type as the proposed windfarm and a similar location topographically. These data are made available at the end of this document.

Results - There is insufficient wind speed in the area.

The yearly average (measured over 28 months) is 4.6 m/s at hub height

Yet Empower claim the yearly average is 8.3 m/s at 85m mast height. This is surprising since it is completely different from the nearby weather station genuine data. To make any such claim, they must provide their own data for comparison. Once the data is supplied, such a shocking discrepancy would then require investigation and new data collection by a fully independent research body for both accuracy and potential fraudulent behaviour. Such data should be made available in the public domain.

Empower prove the questionable nature of their data by refusing to provide it.

Empower have additionally ignored:

SEAI map	The SEAI map shows the area to be in a medium to low wind power area.

Tree evidence	In the Coumnagappul sheltered valley area all types of tree grow symmetrically rounded and straight trunked with no sign of the 'flagging' that identifies consistently high winds. This indicates the area to unsuitable for wind power generation.
Flora evidence	Vegetation indicates low wind speeds Bracken height. Bracken grows to waist height or even head height over most of this area, and can be impassable in summer. Since this plant is an annual its height is a good indicator in a recently burned area since it regrows quickly. See pictures taken by Fehily Timony Heather height. Heather grows to thigh height over most of this area. The flora evidence has been severely affected by extensive burning, which results in shorter growth. An Environmental Assessment that has been carried out subsequent to such burning (post 2020) will need to be repeated once the habitat has recovered, this will take many years. Note that areas that have escaped burning maintain the natural height of the heather.
Local Evidence	Local experience and vegetation corroborate this fact. Coumnagappul and its low northern and western hills are protected by the topography of the area with the mountains of Coumfea and Seefin protecting it from the east, Coumnagappul ridge protecting it from the north, Knockavannia and Bleantasour mountain protecting it from the West. The area has been inhabited for thousands of years because of its favourable climate with trees and flora showing no evidence of wind affected growth.
Turbine Location	The majority of the turbines are placed in the lower altitude areas of the site.

Summary

To build a wind farm in this location could be compared to building a hydroelectric dam project in a desert.

It is certainly an obscenity to destroy such a valuable habitat for the sake of such a small

uneconomic power return.

(Full data details below along with web references)

H. Inconsistencies

1. Wind speeds and opportunity for generation

Since the SEAI wind map already showed medium to low wind resource:

a. why has Empower used government subsidized funds in pursuing this project?
b. How do they justify their promise of community benefits, that will never occur given the lack of actual wind power in the area?
c. Why did Empower suggest data from three weather FORECAST stations on the North and East side of the Comeraghs which

   are only forecasts not weather stations

   are in a completely different area from Coumnagappul. Locals know that the weather on the North East side of the Comeraghs is much worse than on the gentle, protected Western slopes.

d. Why, even to date, have Empower not made the data from their wind records available. All reputable scientific bodies give full access to any data they collect so that may be scrutinized by their colleagues.

   Empower claim that this secrecy is because it is commercially sensitive. By withholding these data they increased the workload of concerned locals, and give good reason to question their data. These data should be made available in the public domain.

2. Fauna surveys.

A person (Eric Dempsey) was frequently observed claiming to be conducting bird surveys for an employer he refused to disclose. His conducted this survey from his vehicle, around local roadways or parked some 2km distant from the proposed area. Large areas of important habitat were excluded from this survey

3. Flora surveys

Invalid as a result of wide spread burning of the area – see section D
EIA Location points do not survey the entire wind farm area but are focussed on areas easily accessible by vehicle

I. Vandalism

a. Archaeology

A well know cairn and kist tomb on Bleantasour mountain (between Glenanneane and

Knockavanniaa mountains) were vandalized on two separate occasions. Locals repaired the cairn, but the tomb remains in damaged conditions. This behaviour is unknown in the area prior to the proposal of this development.

b. Vandalism of vehicle

In January 2023 I parked my Isuzu jeep, as usual, inside the gate on Bleantasour mountain on 2 occasions between 30th December 2022 and 4th January 2023. The weather was beautiful and I took a long walk on both occasions. I had used the jeep in 4 wheel drive on 29th December and had taken it out of 4 wheel drive on my return home. The vehicle did not go to any other locations during that time period. On 5th January, I drove to Wicklow and, when putting the vehicle into 4 wheel drive, I realized that the bolts holding the manual hub caps had been tampered with. On the left hand side only one was remaining, and on the right hand side 5 were remaining. A kind friend assisted in making the vehicle safe. I reported the matter to the Guardai.

I have lived in this area for over 25 years. Such a thing has never happened before the Coumnagappul wind farm was proposed. Clearly some person interfered with my vehicle while parked at Bleantasour mountain.

J. Detailed comments on Empower's planning application

Empower's application is contradictory and additionally many of their mathematical figures are inaccurate. They have failed to provide rigorous scientific information.

Examples given below are only illustrations of the above and are NOT all of the inaccuracies.

EMPOWER'S DOCUMENTS	QUESTIONS AND COMMENTS
Air and Climate States fossil fuel as ONLY alternative. Section 3.1 Table 3.1	Many alternatives that are low-carbon and non-polluting exist. Nuclear power is the most obvious with the Thorium Molton Salt Reactor being a choice that Ireland should consider The Thorium Molten Salt Reactor - Thorium MSR Foundation (thmsr.com) https://www.thmsr.com/en/the-thorium-molten-salt-reactor/ Biomass Biodigestion Offshore wind

Biodiversity page 10 "The Comeragh Mountains are subject to uncontrolled burning which is believed to be connected to agricultural practices. It is expected that the presence of the Proposed Development within the landscape will have the effect of deterring uncontrolled burning due to the associated risk of causing criminal damage at the wind farm."	This burning has only occurred subsequent to Empowers involvement in the area. It is specific to the area proposed Coumnagappul Wind Farm NOT 'the Comeragh Mountains' See Section D pictures
Volume IV Figure 3.1	Shows 50% of turbines within a low SEAI wind speed area.
Page 11 Population & Human Health Long-term slight to positive economic benefit to local area due to job creation and community benefit fund	Empower recognize that any money coming to the community will be very slight long term. Huge negative effect on tourism and recreation revenue. What are the local jobs that Empower will provide long term?
Population & Human Health Do nothing... No economic benefit for the local area due to no provision of a community benefit fund. No employment opportunities as a result of the construction operation and decommissioning of the Proposed Development. No positive benefit to recreation facilities.	Tourism will be able to grow Local businesses will start and thrive Examples can be seen on the Greenway and at Mahon Bridge and Mahon Falls as well as Glamping Pods Lyre (Nire Valley) Nire Valley Glamping, Waterford -
Landscape and Visual The significance of residual visual effects for receptors ranges between 'Substantial-moderate' to 'Imperceptible'. The most notable visual impacts will occur within the immediate surrounds of the turbines at local residential receptors to the south of the horseshoe ridge that contains the Site	Visible and intrusive from multiple points on the Comeragh Drive within 20km Visible and objectionable from multiple points on cycling and walking routes Empower have chosen to ignore any viewpoints not accessible by car. These include all the walking routes in the Nire Valley, The Munster Way and the ridge walk from the Mama to Coumfea/Nire Tourism will decrease

Landscape and Visual "the designation of the Proposed Development lands as an 'Exclusion' area is dictated solely by the Landscape and Seascape Character Assessment for the area." Page 50 Planning Statement.pdf (pleanala.ie)	In accordance with Natura 2000, Waterford County Council have designated areas of the Comeragh range for a Natural Heritage Area. This Area is close to the proposed wind farm, and the wind farm will be clearly visible from the Natural Heritage Area. It will cause damage to habitat and disturbance to birds and all other fauna The proposed wind farm is a major water source for both the high water quality rivers of the Nire and the Colligan The proposed wind farm is clearly and repeatedly visible from many scenic road, cyclist and walking routes.
INACCURATE AND CONTRADICTORY FIGURES	
Rated capacity of the wind farm: 60.0 –72.0 MW The proposed wind farm has the potential to produce between approximately 7,358 MWh (megawatt hours) and 8,830 MWh of electricity per year over the 40 year lifetime of the Proposed Development. The electricity produced by the proposed wind farm would be sufficient to supply between approximately 43,800 – 52,560 Irish households with electricity per year (depending on MEC), based on the average Irish household using 4.2 MWh of electricity At €2 per megawatt "the community benefit fund would amount to an average of €337,155 per annum" Page 25 Report for AA Screening and NIS.pdf (pleanala.ie) and Page 15 Chapter 1 - Introduction-1.2.pdf (pleanala.ie)	8830 MW per year divided by 4.2MW per household: Is 2,102 households (not 52,560) The above figure of 8830 shows it will be €17,660 on average per annum
Page 12 The Site's elevation ranges between c. 2250-45,200m AOD, with the most elevated locations along the eastern extents of the Site	Note that Everest is around 8,250m AOD. Empower is claiming that the site is 7 times higher than Everest.

Planning Statement.pdf (pleanala.ie)	
INFRASTRUCTURE Planning Statement.pdf (pleanala.ie) Microsoft Word - 290623 Coumnagappul RSR.docx (pleanala.ie)	New roadways will be 4.5m in 'running width' with 5.5m clearance envelope Where are details regarding third party land options

CONCLUSION

Wind speeds are inadequate
Land type, Fauna and Flora impact is unacceptable
The results of surveys have been distorted by the burning of large areas that target the area of the proposed wind farm
Data gathering points have omitted large areas of the proposed wind farm, thereby not recording all the habitat
The livelihoods of many people involved in tourism will be adversely affected
Empower have not provided an accurate SID application

Summary

Yours faithfully

Ms. Elizabeth Alderton

More detailed information is given on the succeeding pages

QUOTATIONS AND REFERENCES

A. Land Type

Lindsay
WindAction | The green energy debate: are wind farms really worth it? (https://www.windaction.org/posts/50250)

Wind farms built on carbon-rich peat bogs lose their ability to fight climate change (theconversation.com) https://theconversation.com/wind-farms-built-on-carbon-rich-peat-bogs-lose-their-ability-to-fight-climate-change-143551

Experts warn wind farms should not be built on peatland – Shetland News – Scotland Against Spin" https://scotlandagainstspin.org/2021/11/experts-warn-wind-farms-should-not-be-built-on-peatland-shetland-news/

England Peat Action Plan - GOV.UK (www.gov.uk) https://www.gov.uk/government/publications/england-peat-action-plan

Climate Change and Irish Peatlands - Irish Peatland Conservation CouncilIrish Peatland Conservation Council (ipcc.ie) https://www.ipcc.ie/a-to-z-peatlands/irelands-peatland-conservation-action-plan/peatland-action-plan/climate-change-and-irish-peatlands/

Statistics Explained - RenewableUK https://www.renewableuk.com/page/UKWEDExplained

B. **Habitat and Fauna**

The Fourth National Survey of Hen Harriers in Ireland

"The hen harrier (*Circus cyaneus*) is a protected raptor, listed in Annex I of the EU Birds Directive and as such, Member States are obligated to protect and conserve the species.

These obligations involve key actions to designate Natura 2000 sites, also known as Special Protection Areas (SPAs) and also to undertake monitoring of hen harriers nationally, regionally and within the designated areas.

The fourth national survey of hen harriers in Ireland was undertaken in 2015 with the following observations:

"Some increases have been observed at the Knockmealdowns – Kilworth – Comeraghs complex ... with **just single pairs in the Kilworth and Comeragh Mountains respectively.**" (for full report see http://edepositireland.ie/handle/2262/76145)

Threat Response Plan for protected raptors

Wind turbines Kill Birds WCFN_STEI_media_release_30June2012.pdf (epaw.org)
https://www.epaw.org/press/WCFN_STEI_media_release_30June2012.pdf

ArcGIS - My Map – SAC areas

Fehily Timony: Chapter 10 Ornithology-1.1.pdf (pleanala.ie)

C. **Peatlands and mountain slopes vital for water quality, flood and drought prevention**

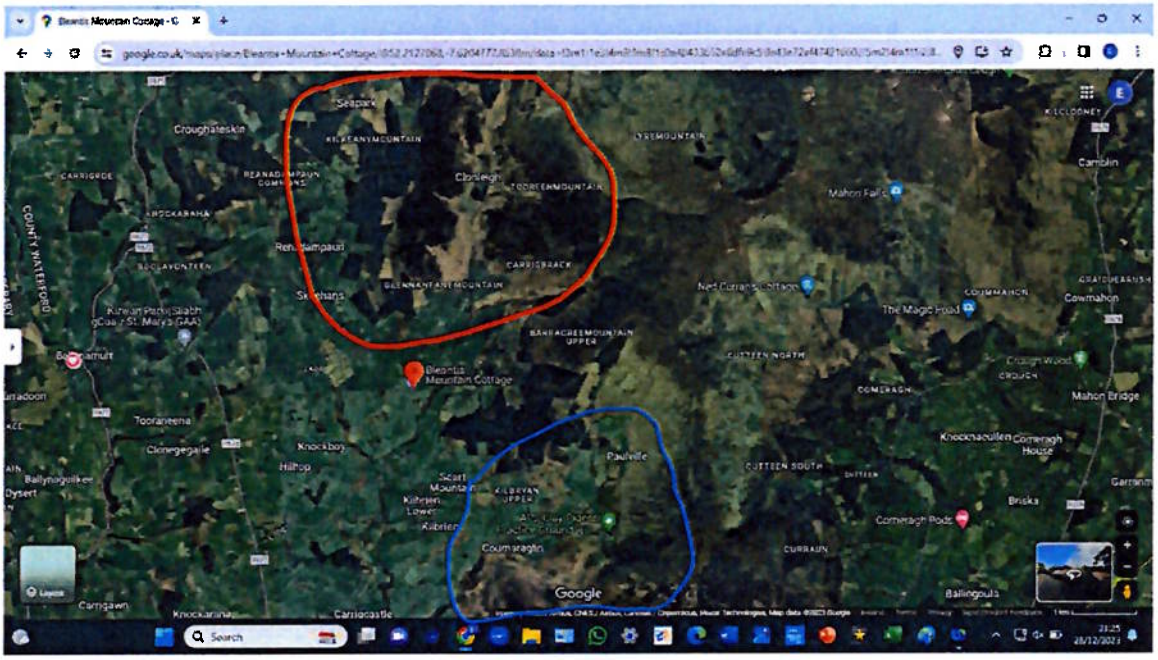
Waterford City & County Council - Draft Climate Action Plan 2023-2029 | Waterford City & County Council (waterfordcouncil.ie)
Natural Heritage Map (arcgis.com)
https://storymaps.arcgis.com/stories/efa8ab73022c46ea91c86bf4b3ad6b29
npws.ie/sites/default/files/publications/pdf/SPEU09_Comeragh_Mountains_Report_01b_M.pdf
An example of damage that is possible would be **Derrybrien wind farm, Galway. See article https://www.agriland.ie/farming-news/derrybrien-wind-farm-focus-on-real-issues-needed-to-stop-eu-fines/**

Wilson, Florence & Farrell, Catherine. (2009). Peatland vulnerability to energy-related developments from climate change policy in Ireland: the case of wind farms. Mires and Peat. 4.

Report for AA Screening and NIS.pdf (pleanala.ie) new road construction
Concrete is Terrible for the Environment (Here's Why!) (concretequestions.com)

D. **Burning targeting the site**

The google satellite map shows clearly a badly burned area in the Comeraghs (red)



"A process has been underway since 2015 to develop a Threat Response Plan. This process, led by Josepha Madigan and the Department of Culture, Heritage and the Gaeltacht, focuses on the key land uses of agriculture, forestry and wind farm development."

Extract from the EU Birds Directive

Please note: all these comments also apply to the Peregrine Falcon which also nests and breeds in this area of the Comeraghs . This bird , together with the Hen Harrier, appears in Annex 1 of the Directive, indicating a special conservation status.

The measures to be taken must apply to the various factors which may affect the numbers of birds, namely the repercussions of man's activities and in particular the destruction and pollution of their habitats

Certain species of birds should be the subject of special conservation measures concerning their habitats in order to ensure their survival and reproduction in their area of distribution.

The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

In this connection, account shall be taken of:

(a) species in danger of extinction;
(b) species vulnerable to specific changes in their habitat;
(c) species considered rare because of small populations or restricted local distribution;

Member States shall take appropriate steps to avoid pollution or deterioration of habitats or any disturbances affecting the birds, in so far as these would be significant having regard to the objectives of this Article. **Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.**

Member States shall take the requisite measures to establish a general system of protection for all species of birds referred to in Article 1 (i.e. "This Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies.") , **prohibiting in particular:**

(d) **deliberate disturbance of these birds particularly during the period of breeding and rearing**

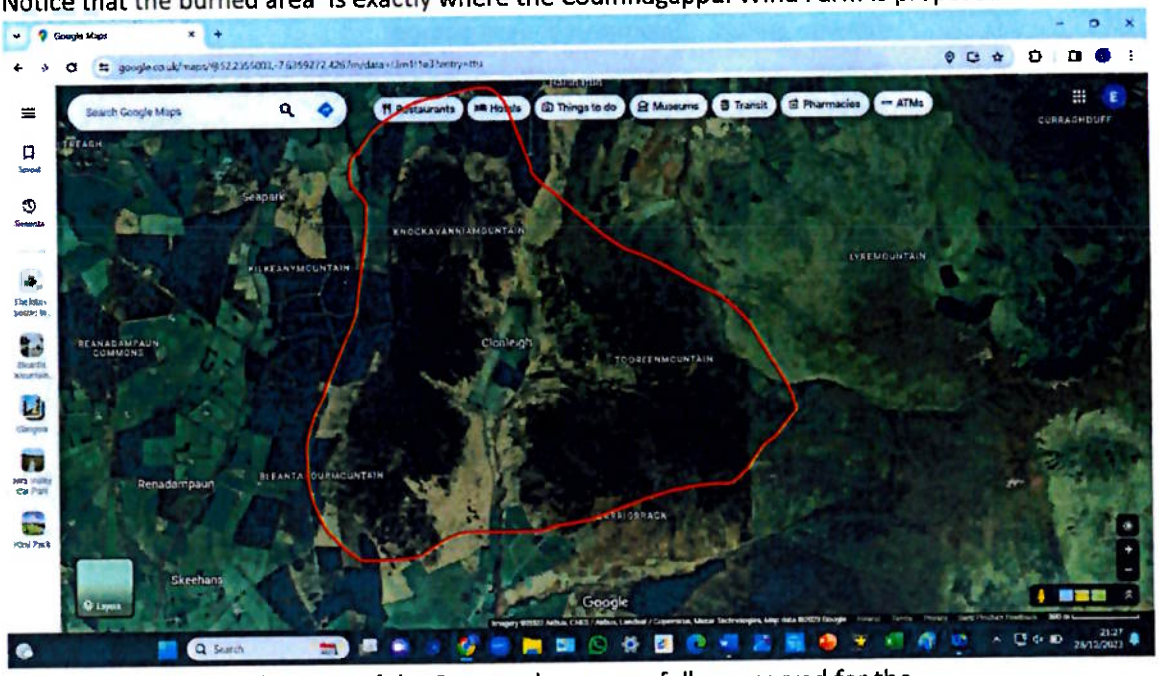
SPEU09_Comeragh_Mountains_Report_01b_M.pdf (npws.ie) page 20

https://waterfordcouncil.ie/media/plans_strategies/development-plan/2022-2028/Ch%209.pdf

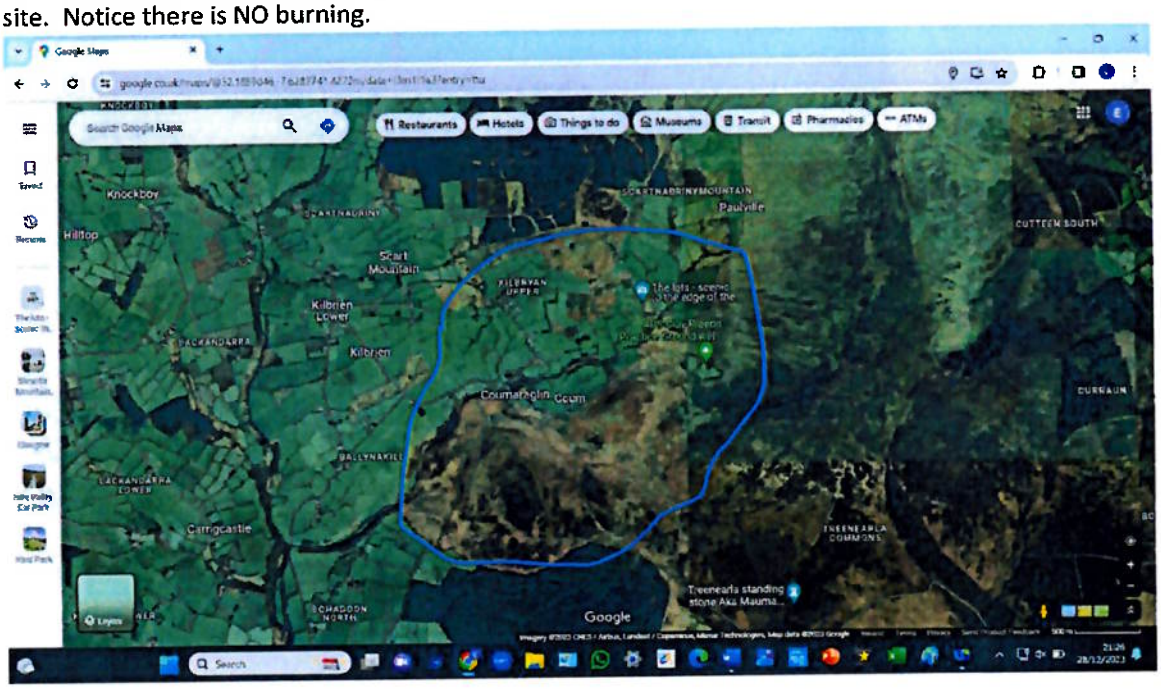
Burned area of Bleantasour mountain (taken on 1st April 2022). Note the point where the fire was ignited. (Zoomed in in next picture)

Note the ignition points to the north, the fire then burned in a southerly direction

Notice that the burned area is exactly where the Coumnagappul Wind Farm is proposed.



Notice that other nearby parts of the Comeraghs are carefully preserved for the IMPROVEMENT of the habitat. The area below has similar flora and is just south of the site. Notice there is NO burning.



Heather height on Bleantasour mountain as compared with burned area of Knockavannia and Carrigbrack

Burned recently Nire valley tourist area Burned recently

E. No additional references

F. **Disruption to business and loss of income**

We give below some copies of the comments we have received on booking.com and our guest book

Jean34, (fr)
Reservation Number 1741160075
New!
10
Aug 27, 2019

Location
10

Goede cottage in een landelijke omgeving.

Bleantis Mountain Cottage is een rustige plek in het heuvelland ten noorden van Dungarvan. Ideaal voor rustzoekers die een tijdje willen relaxen in de pittoreske entourage van boerderijen, grasgroene weilanden en grote aantallen koeien en schapen. Ook voor toeristen die met de auto de County Waterford willen verkennen is de cottage een gunstig gelegen vertrekpunt. De ontvangst door de eigenaars is uitermate vriendelijk en gastvrij. De cottage is smaakvol ingericht en super schoon. Een adres in een tamelijk onbekende regio waar wij met genoegen een week hebben doorgebracht.

Bleantis Mountain Cottage is a quiet place in the hill country north of Dungarvan. Ideal for those seeking tranquillity who want to relax for a while in the picturesque entourage of farms, grass-green meadows and large numbers of cows and sheep. The cottage is also a convenient starting point for tourists who want to explore the County Waterford by car. The welcome from the owners is extremely friendly and welcoming. The cottage is tastefully decorated and super clean. An address in a fairly unknown region where we have enjoyed spending a week.

Ángel Luis, (es)
Reservation Number 3901271511
10
Aug 14, 2019

Location
10

Un auténtico paraíso

La casita es preciosa y el entorno es una maravilla. Elizabeth es super amable y la acogida realmente fantástica.

A true paradise

The little house is beautiful and the setting is wonderful. Elizabeth is super friendly and the reception really fantastic.

Ide, (ie)
Reservation Number 1433390539
10
Mar 23, 2019

Location
10

Overall it is a perfect spot for a break away from the hustle and bustle of city life.

The cottage was lovely. It had all essentials you would need for a break away. Our host Elizabeth brought us up the mountain into an area which we would never have found on our own. It was a fabulous walk with fabulous views and Elizabeth was fabulous company. That and our trip to Mahon Falls were the highlights of our trip.

Walking Strategy Document (waterfordsportspartnership.ie)
https://www.waterfordsportspartnership.ie/pdfs/walkingstrategy.pdf

Walk in Ireland Bleantasour Mountain Milk Hill, ascent 263m, length 6.5km (mountainviews.ie)

Proposed Natural Heritage Area
https://storymaps.arcgis.com/stories/efa8ab73022c46ea91c86bf4b3ad6b29

Some pictures of some of the scenic route views affected by the proposed Coumnagappul Wind Farm

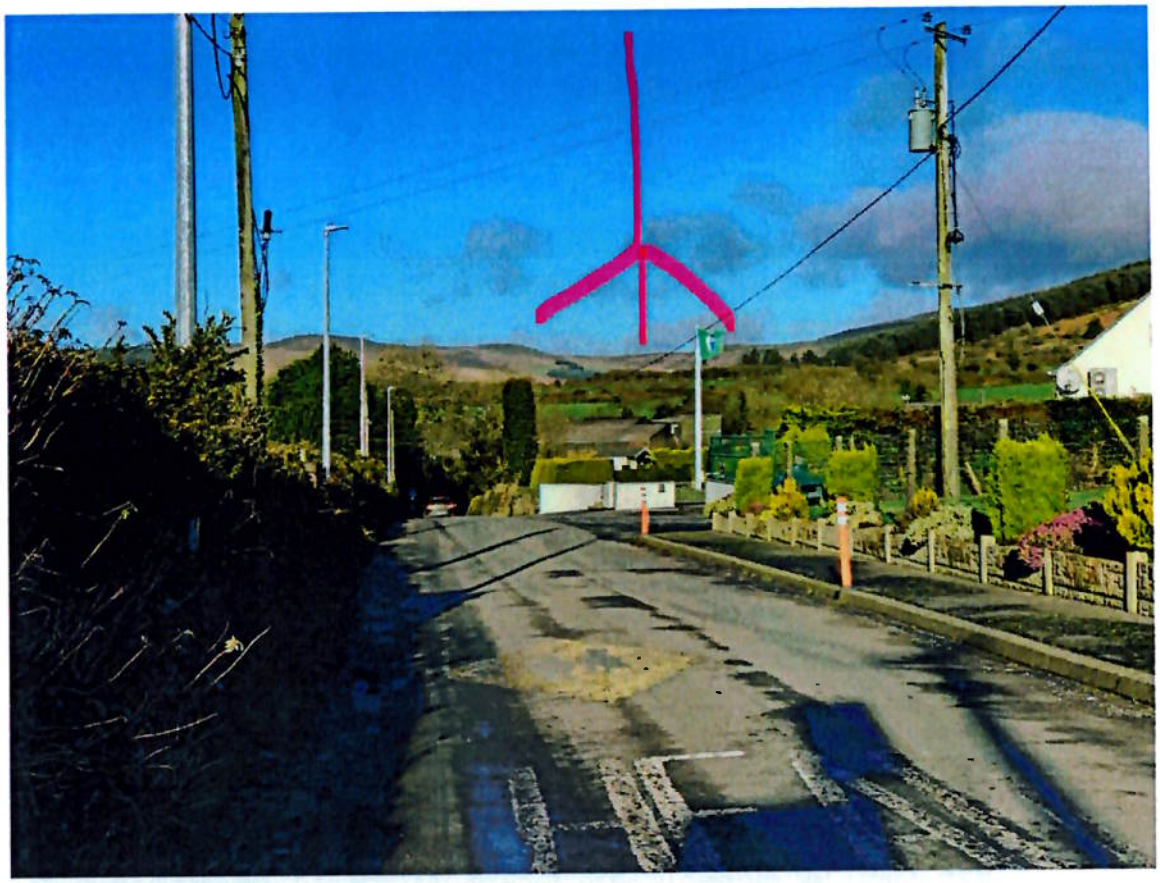
Dungarvan Clonmel road view into Coumnagappul

The mountain views encourage visitors to take the Comeragh Drive. The sun often shines on Coumnagappul

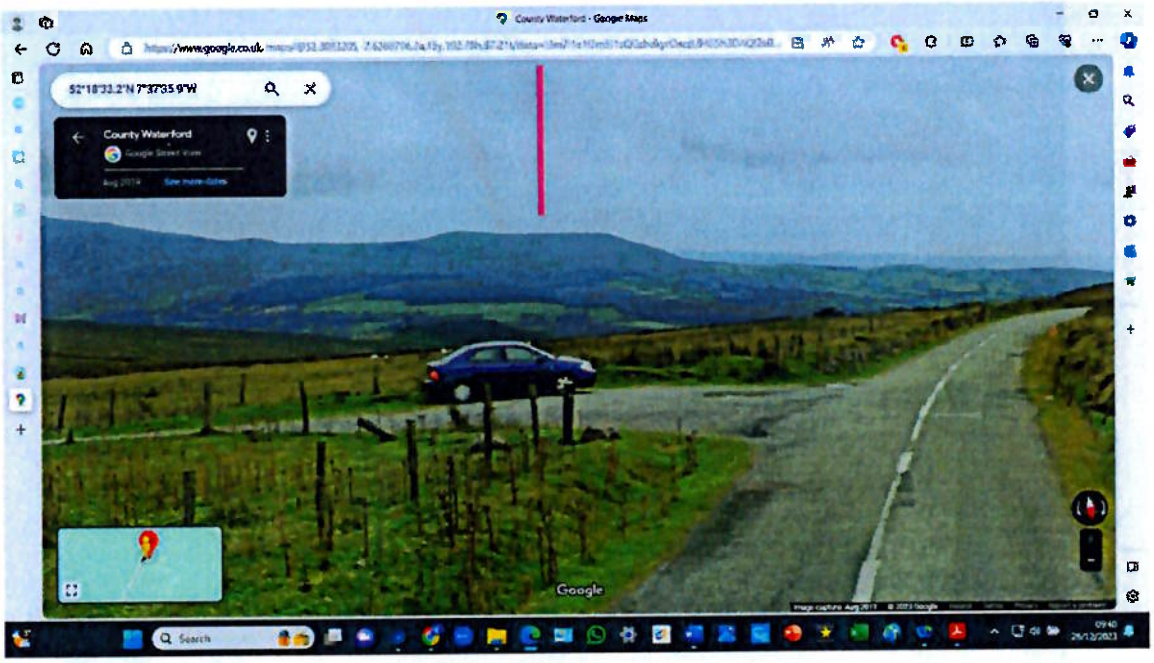
Comeragh Drive

Access to Comeragh Drive. Beary's Cross to Scart Bridge view into Coumnagappul – as tourists drive they will get repeated views of Coumnagappul Wind Farm

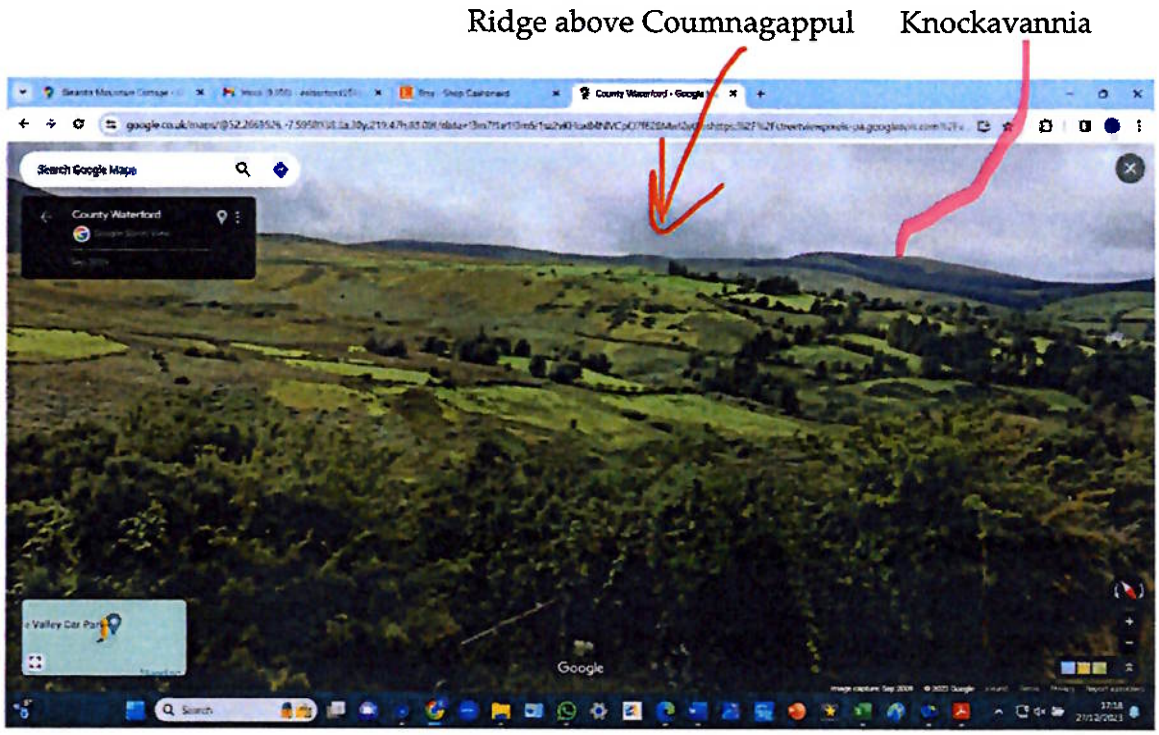
Comeragh Drive from top of Mama pass to Kilbrien anticlockwise direction views into Coumnagappul. Repeated views that become closer and closer.



Knockavannia and the ridge above Coumnagappul viewed from Comeragh Drive north of Nire Valley (Proposed Natural Heritage Area) https://maps.app.goo.gl/M19dZsypA543sv4v9

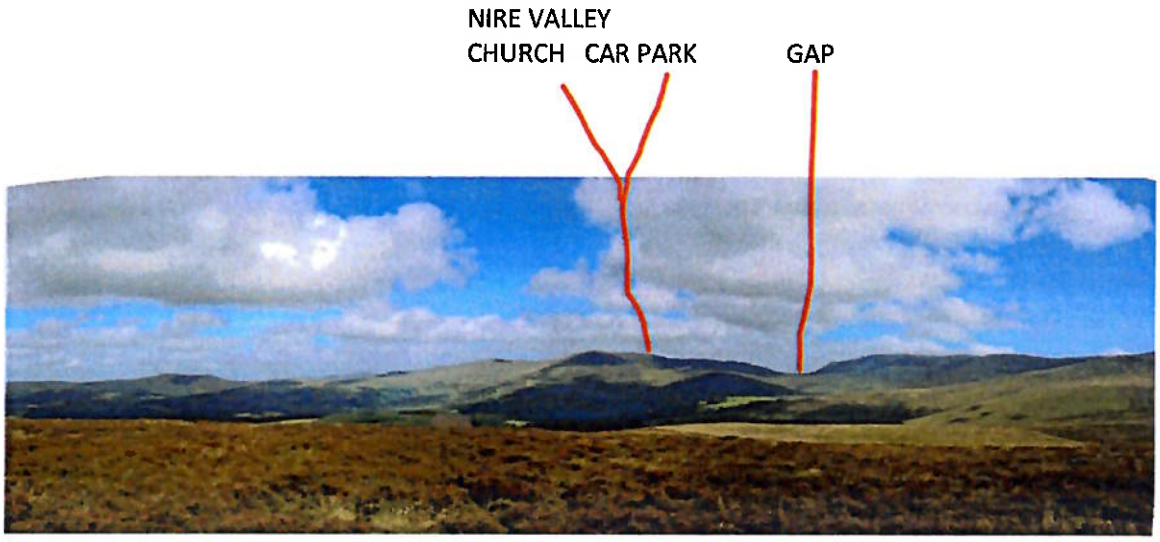


View from Nire Car Park (proposed Natural Heritage Area)
https://maps.app.goo.gl/j5ecQyHGRpAJAt7Q7



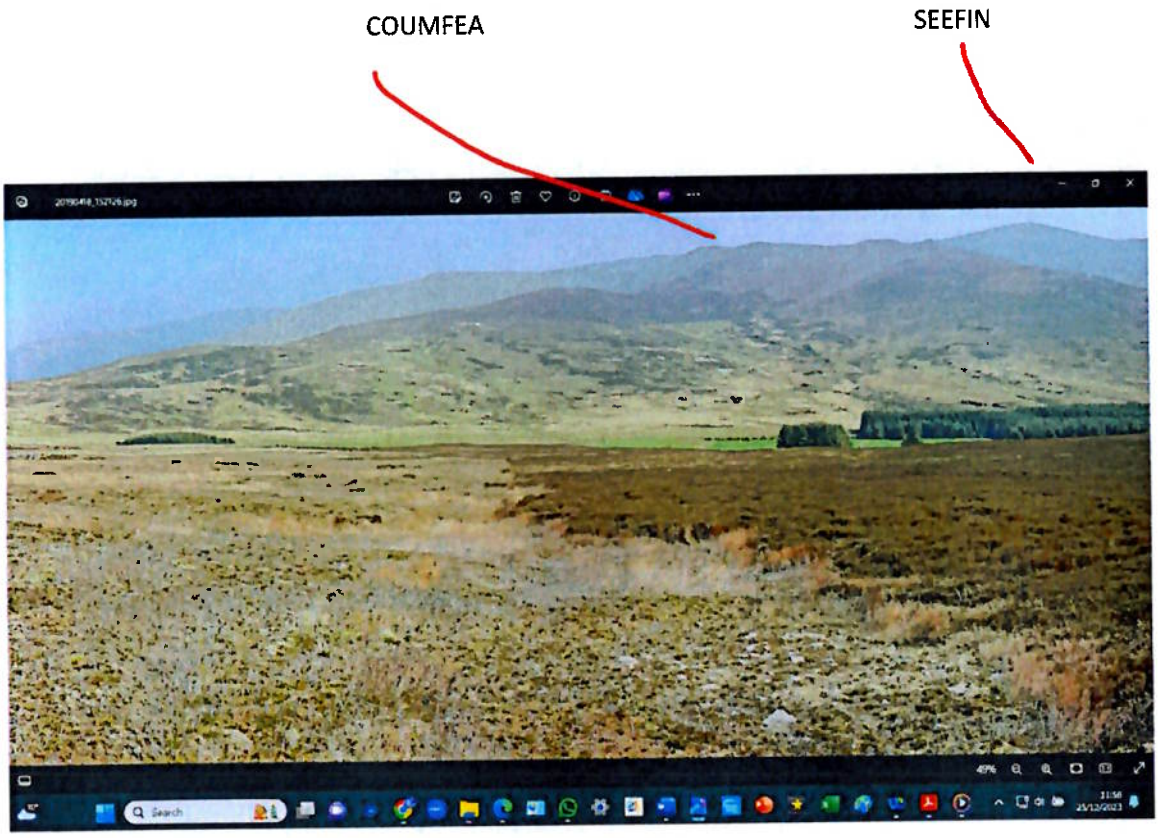
VIEWS FROM KNOCKAVANNIA CLEARLY SHOW KEY VIEWPOINTS WHICH WILL OVERLOOK THE PROPOSED WIND FARM. THESE VIEWPOINTS ARE WITHIN THE PROPOSED NATURAL HERITAGE AREA

VIEW FROM KNOCKAVANNIA INTO NIRE VALLEY, PROPOSED NATURAL HERITAGE AREA. Walkers will spend many hours viewing the wind farm at Coumnagappul



Knockavannia

VIEW FROM KNOCKAVANNIA TOWARDS SEEFIN AND COUMFEA, PROPOSED NATURAL HERITAGE AREA AND WELL KNOWN WALKING ROUTE. WALKERS WILL SPEND MANY HOURS VIEWING THE WIND FARM IN COUMNAGAPPUL.



Board turns down wind masts move - The Irish Times

G. Wind speed data

Demonstrably Low Windspeeds in the Proposed Area –

AN AVERAGE OF ONLY 4.6 m/s (at hub height) over 28 months of data
A POSSIBLE GENERATION OPPORTUNITY OF ONLY 0.47%

Clearly, there is such a huge difference between the actual measured wind speed and the wind speed required that the project is not viable.

Detailed data used to assess wind speed can be found at

www.wunderground.com/weather/ie/Ballinamult/IBALLY6 (NOTE: in mph)
screenshots are attached to this submission

Other data sources consulted:

Ballinamult - Weather Observations Website - Met Éireann (in knots)
Milk Hill Yr - Milk Hill - Langtidsvarsel (in m/s)
Ballinamult Yr - Ballynamult - Langtidsvarsel (in m/s)

Height of recordings

Met Eirann states that wind measurements are made at 10m height

See also email reply from
Yr - Kilbrien - Long term forecast (in m/s)
Meteorologisk institutt (Yr)
21. jan. 2024, 13:13 CET

Hello, and thank you for using Yr!

Wind speeds and directions are measured at a height of 10 m above ground, according to WMO standards.

Kind regards,

Jan Erik / Team Yr

DATA ANALYSIS

Note that the data have been analysed so as to give the best possible outcome for the wind farm.

For example, only 4 of the turbines (1,2,4,12) are located on the more elevated parts of the site. Of the remaining 6, one (T11) is located in a position protected from any northerly or easterly winds, and the other 5 are located in the sheltered valley area. Nevertheless, the following data have assumed that all the turbines are on elevated sites.

Ballinamult weather recording station is referred to as: BWRS.

Note that wind speeds are at BWRS recorded in MILESPERHOUR (mph). Empower state their windspeeds in METRESPERSECOND (m/s)

(https://www.unitconverters.net/speed/meters-per-second-to-miles-per-hour.htm)
Empower refuses access to their own wind speed data.
Empower are claiming an average annual windspeed of 8.3 m/s (at 85m mast height) over the proposed site. They do not substantiate the figure with any data, and data collection proves it is an inaccurate and inflated figure.

The following details of two recordings sites apply

BALLINAMULT STATION

Recordings at 10 metres
Measurements taken in MPH (miles per hour)

MILK HILL – recent analysis
Recordings at 10 metres
Measurements taken in m/s (meters per second)
Wind speeds typically 1-2 m/s faster than Ballinamult.
To give the most favourable possible result for the wind farm, this has been assumed to be 2 m/s)

EMPOWER

Annual average wind speed 8.3 m/s
Mast height 85m

CALCULATIONS

(Note these calculations are targeting 8.3 m/s at hub height 100m. This gives results that are the most favourable method for the wind farm, at 85m mast height (Empower's measurement) an even higher wind speed would be needed at 10m).

CALCULATED WIND SPEED [$V2=V1\times(h2/h1)^{1/7}$] NEEDED AT BALLINAMULT IS 3.8 m/s (8.56 mph) TO ACHIEVE 8.3 m/s AT HUB HEIGHT 100m

HUB HEIGHT	8.3 m/s
BALLINAMULT	5.8 m/s
MILK HILL 2 m/s FASTER	
BALLINAMULT	3.8 m/s (8.56 mph)

For Comparison

CALCULATED WIND SPEED [$V2=V1\times(h2/h1)^{1/7}$] NEEDED AT BALLINAMULT IS 1.81 m/s (4.04 mph) TO ACHIEVE 5.3 m/s AT HUB HEIGHT

HUB HEIGHT	5.3 m/s
BALLINAMULT	3.81 m/s
MILK HILL 2 m/s FASTER	
BALLINAMULT	1.81 m/s (4.04 mph)

TABLE 1 – Wind speed recorded at Ballinamult.

The table below shows Average wind speed per month and the number of days when wind speed was 3.8 m/s or more and, for comparison, the number of days when wind speed was 1.8 m/s or more.

Both of these analyses show that wind speeds are demonstrably simply too low.

(*For example, the storm on 27th December 2023. The average windspeed at 10 metres that day was 7.8mph 3.5 m/s. It caused widespread damage and power cuts that made the national news. Empower are suggesting that such wind speeds occur as an AVERAGE during the whole year. This is clearly an inaccurate measurement by Empower.*)

Elev 466 ft, 52.21 °N, 7.74 °W	Average wind speed		number of days average wind speed		
BALLINAMULT WEATHER STATION	mph	m/s	EXAMPLE 1 3.8 m/s (8.56 mph) or more	EXAMPLE 2 1.81 m/s (4.04mph) or more)	
2021					
SEPTEMBER	1.3	0.581152		1	
OCTOBER	2.6	1.162304		6	
NOVEMBER	2.3	1.028192		4	
DECEMBER	3.9	1.743456	1	12	
2022					
JANUARY	2.2	0.983488		5	
FEBRUARY	4.7	2.101088		16	
MARCH	3.9	1.743456		12	
APRIL	2.9	1.296416		7	
MAY	2.9	1.296416		7	
JUNE	2.6	1.162304		4	
JULY	2.1	0.938784		1	
AUGUST	1.7	0.759968			
SEPTEMBER	2.1	0.938784		4	
OCTOBER	3.8	1.698752		16	
NOVEMBER	3.7	1.654048	2	9	
DECEMBER	2.7	1.207008		6	
2023					
JANUARY	2.9	1.296416		8	
FEBRUARY	2.7	1.207008		5	
MARCH	3.9	1.743456		16	
APRIL	3.3	1.475232		0	
MAY	2.3	1.028192		2	
JUNE	2.3	1.028192		2	
JULY	2.7	1.207008		4	
AUGUST	2.8	1.251712		8	
SEPTEMBER	2.8	1.251712		5	
OCTOBER	2.3	1.028192		3	
NOVEMBER	2.8	1.251712		5	
DECEMBER	4	1.78816	1	13	
	2.864286	1.28045			

28 MONTHS	852	days	4	181	
		%	0.47	21.24	

Results

Only 4 days, or 0.47%, availability to produce 8.3 m/s at hub height
Only 181 days, or 21.24% availability to produce 5.3 m/s at hub height

Confounding factors

These data DO NOT mean that the electric power would be available to or usable by the electricity supply grid for this amount of time.

Average windspeeds per month or day also include significant periods of lower speeds. [An average of >=3.8 m/s on any one day DOES NOT mean 24 hours of generation nor does an average of >=3.8 m/s for any one month mean 31 days of generation.]

The intermittent nature of wind resource creates huge challenges for grid forecasting and grid balancing . These are additional (unmeasured) factors that determine the real-life usage of any generated power.

All of the above will mean that a significantly lower percentage capacity than 0.47% will be usable in actual practice.

Assumptions

The % figures assume that for ALL the hours where windspeed is sufficient:

Full MW generation would be possible (no maintenance required)
No load shedding would be required to balance grid requirements

The two assumptions above are not practical in everyday use, making the % figures a HUGE overestimate of capacity

https://backend.orbit.dtu.dk/ws/portalfiles/portal/112135732/European_Wind_Atlas.pdf)

Bee, 2022 How Fast Is 10 Mph Wind | Get Quick Answer Here (arnabee.com)

Bracken height Appendix 11-2 - General Site Photographs-1.1.pdf (pleanala.ie)

LOW WIND SPEEDS. High heather height in valley between Toureen mountain and Carrigbrack with the view into Coumnagappul where there is a small forestry area.

H. Chapter 10: Landscape, Coast/ Marine and Blue Green Infrastructure | Waterford City & County Council (waterfordcouncil.ie)
Renewable Energy Strategy (waterfordcouncil.ie) Page 91
Material Alterations Report.pdf (waterfordcouncil.ie) Pages 120

I. **No further references**

J. **No further references**

K. **No further references**