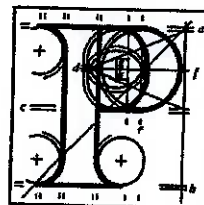


Our Case Number: ABP-309770-21

Planning Authority Reference Number:



**An
Bord
Pleanála**

Ruth and Adam Sweeney
Ballinameagh
Castlepollard
Co. Westmeath

Date: 19 May 2021

Re: Proposed development of up to 15 wind turbines with a tip height of up to 175 metres and laying of approximately 26km of underground electricity cabling to facilitate the connection to the national grid, and all associated site development works
Townlands of Camagh, Carlanstown, Coole, Clonrobert, Clonsura, Doon, Monkstown, Mullagh, Newcastle and other townlands, Co. Westmeath

Dear Sir / Madam,

An Bord Pleanála has received your observation or submission in relation to the case mentioned above 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.

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.

For further information on this case please access our website at www.pleanala.ie and input the 6-digit case number into the search box. This number is shown on the top of this letter (for example: 303000).

Yours faithfully,

Eimear Reilly
Administrative Assistant
Direct Line: 01-8737184

BL50A

Tell
Glao Áitiúil
Facs
Láithreán Gréasáin
Ríomhphost

Tel
LoCall
Fax
Website
Email

(01) 858 8100
1890 275 175
(01) 872 2684
www.pleanala.ie
bord@pleanala.ie

64 Sráid Maoilbhríde 64 Marlborough Street
Baile Átha Cliath 1 Dublin 1
D01 V902 D01 V902

Case reference: PA25M.309770

Townlands of Camagh, Carlanstown, Coole, Clonrobert, Clonsura, Doon, Monktown, Mullagh, Newcastle and other townlands, Co. Westmeath

Proposed development of up to 15 wind turbines with a tip height of up to 175 metres and laying of approximately 26km of underground electricity cabling to facilitate the connection to the national grid, and all associated site development works.

Submitters: Ruth Sweeney/ Adam Sweeney

Address: Ballinameagh, Castlepollard, Co. Westmeath

Special importance to us is seen in chapter 5 in relations to persons with autism in the area. This is due to that fact we have a teenager with autism living in our house.

Chapter 3

- 1) In chapter 3 Statkraft shows that it has not considered any alternatives to industrial wind in Westmeath. There is no mention of micro, small and medium scale wind energy alternatives. No mention of solar, biomass, hydro options, this is clearly stated in 3.1.1 and 3.10.
- 2) In 3.2 it is stated that they plan to allow commercial peat harvesting to continue onsite should Coole Wind Farm be built meaning there will be further damage done to the bogs and the plant, bird and animal life dependant on them for survival.
This means that there is no chance for the bog to be fully rewetted, reseeded, regenerated and restored as a fully functioning carbon sink and ecologically valuable wetland.
- 3) In 3.2 CWF also state that *"Should peat extraction cease, a site rehabilitation plan will be required which would be likely to encourage re vegetation of bare peat areas, with targeted active management being used to enhance re-vegetation and the creation of small wetland areas."* Is there such a site rehabilitation plan anywhere in the planning application? *I could not find one.*
- 4) Throughout chapter 3 it is stated that the 13 turbine Coole Wind Farm is permitted. This is incorrect. Westmeath County Council denied planning permission for Coole Wind Farm under PWIN 6. Coole Wind Farm then brought the planning application to An Bord Pleanála. An Bord Pleanála granted permission for the 13 turbine industrial wind farm known as Coole Wind Farm. The North Westmeath Turbine Action Group sought and was given a Judicial Review on An Bord Pleanála's decision to grant planning

AN BORD PLEANÁLA
LDG- 039908-21
ADP- 309770-21
14 MAY 2021
Fee: € 50.00 Type: cad
By: H-O

permission to Coole Wind Farm. The case has been heard in the Commercial High Courts and is yet undecided. Coole Wind Farm SID is well aware of this.

- 5) Statkraft and Coole Wind Farm are trying to circumvent the planning process and the law by attempting to add two turbines to the failed thirteen turbine Coole Wind Farm application to create the 15 turbine Coole Wind Farm SID.
- 6) In the oncoming Westmeath County Development Plan 2021-2027 CPO10.132 replaces PWIN 6. Both clauses seek a set-back distance of ten times the height of the nacelle from nearest residences. PWIN 6 was in operation when Coole Wind Farm first sought planning permission for their 13 turbine wind farm. Coole Wind Farm knew of this clause and applied for planning permission, knowing that their planning application did not adhere to county guidelines. Coole Wind Farm in either the 13 turbine or 15 turbine state is in complete contravention to local planning guidelines.
- 7) In 3.2 it is claimed that should Coole Wind Farm not go ahead *"the opportunity to capture an additional part of Westmeath's valuable renewable energy resource would be lost"* Westmeath is a low wind energy county. Industrial wind is not the most efficient way to capture renewable energy in this county.
- 8) A 35 acre solar farm on Tullynally grounds has received full planning permission from Westmeath County Council with no objections from locals. It has the capacity to power half of Castlepollard when operational. This will contribute in a meaningful way to meeting Government and EU targets for the production and consumption of electricity from renewable sources and the reduction of greenhouse emissions.
- 9) In no part of chapter 3 do Statkraft or Coole Wind Farm mention an offshore wind farm as a viable alternative to Coole Wind Farm. The Kish Bank off the Dublin Coast would be an excellent alternative location for a highly effective offshore wind farm situated close to a major city with need of renewable energy.
- 10) Table 3.1 shows that the increased size industrial wind farm will have greater impact on the environment, landscape and visuals, habitat, subsurface archaeology and cultural heritage, water, noise and vibration, birds and biodiversity, population and human health than the smaller 13 turbine one.
- 11) Coole Wind Farm claim that they have mitigated against most of the negative effects of the larger wind farm.

In the visual impact on the landscape, they claim that the negative effects will be mitigated against by good design. Does this mean that the turbines will enhance the landscape? Or that they will be so well designed as to be invisible, as it is impossible for 175m high turbines to be hidden behind trees and bushes.

How do they propose to mitigate against the additional noise of turbines with considerably larger blades and two extra turbines? Do silent turbines exist?

There are no mitigations referred to in regards to archaeology. This is an archeologically rich area. Proposed Turbine no.2 is situated right beside a crannog. What will be done to protect this crannog? There is an archaeological ridge situated right beside Turbine no 15. No mitigations mentioned to protect this either. If this was a domestic build a full archaeological dig would be insisted upon prior to any building work, at considerable expense. Why not here?

- 12) In 3.3.1 Coole Wind Farm claim to have chosen this site because of low population density, reasonable access to the Grid network, the availability of unconstrained land, the lack of visual amenity and that the site is located outside areas designated for the protection of ecological species and habitats.

Answers

If there is little to no impact on residents as CWF claim then why is low population density important?

Just because this area has low population density does not mean that the people living here should be disregarded. We are protected in local planning through PWIN 6 and now CPO 10.132 which both provide for a one in ten setback distance (of the nacelle) for local residences.

Coole Wind Farm has to connect to the grid through Mullingar substation 26.9km away which they claim is a viable distance. I could find no rationale scientific or otherwise for what constitutes a viable distance to the national grid for a grid connection.

There is a pNHA onsite on the northern end (Lough Bane) and several SPAs and SNAs in close proximity to the site and close to the grid connection route. Coole Wind Farm dismissed the effects their development will have on these sites.

These turbines will destroy any visual amenity that we have, changing our rural landscape into an industrialised one.

- 13) In 3.6.1, one of the constraints refers to separation distances from sensitive receptors, this includes homes. Two homes close to the proposed Coole Wind Farm SID are situated less than 700metres away from turbine no 15 at (638m and 679m). This is less than the setback distance of four times the tip height

away from a residential building as recommended in the Draft Revised Guidelines 2019.

- 14) Coole Wind Farm claim that the owners of these homes which are less than the recommended distance away from turbine no 15 are involved in the proposed development. Is this legal?
- 15) In 3.6.1 it is stated that the constraints map in fig. 3.2 was produced from a desk study not an actual visit to the site and the surrounding area. The distances between turbines, their associated infrastructure and sensitive receptors is not enough. Sensitive receptors mentioned are Natura 2000 sites which are protected under European Law, homes, telecommunications links, watercourses and archaeological sites.
- 16) In fig. 3.2 it appears that turbines 2, 6, 9 and 13 are in the path of the buffer zone for Three Ireland. Three Ireland has the best mobile phone connection in this area. It is not good, but is the only viable one locally. This now is to be destroyed by the turbines.
- 17) Remote working will be impossible in this area if the currently fair internet coverage is degraded by blockage from the turbines.
- 18) Turbine no 11 is just within the buffer zone of at least one residence.
- 19) This Constraints Map fig 3.2 has Clonsura bog completely under forestry which it is not. It is adjacent to Coillte forestry.
- 20) In 3.6.1 it states that *"The proposed turbine layout was also informed by wind data and the results of noise and shadow flicker modelling as they became available"*.
Coole Wind Farm proposes to build a larger industrial wind farm with larger turbine blades than in their earlier failed planning application. It will produce more shadow flicker and more noise.
The Wind Data states that this is a low wind area. It is unsuitable for industrial turbines
- 21) In 3.6.2 Turbine Layout Coole Wind Farm claim that *"The development of the final Proposed Development layout has resulted following feedback from the various studies and assessments carried out as well as ongoing negotiations and discussions with landowners and the local community."*
The only information anyone received from Coole Wind Farm SID was a confidential letter sent out to residences within 1.7km of a turbine stating that

Coole Wind Farm planned to apply as a SID and that there would be a website coming on line in November 2020. This website continually brought me back to the Statkraft site. There was no socially distanced meeting offered. The last community open night was for the thirteen turbine wind farm and was held in 2013/14.

22)In 3.6.2.4 the turbine size and structure is discussed. The turbines in CWF and CWF SID vary hugely. They may be the same height but are not the same width. The diameter of the proposed turbines in CWF is 140m the diameter of the proposed turbines in CWF SID is 155m. The output is different. The environmental impact is different. Each individual footprint is more than 10% bigger. There are 2 new turbines as well. These new, bigger, wider, turbines should be the subject of a new EIAR.

23)In 3.6.2.4 it is claimed that with the increased turbine blade size and the addition of two new turbines Coole Wind Farm will increase its output to over 50MW bringing it to SID size.

It is claimed in other chapters that the increased blade size alone will increase the output of the thirteen turbines to 66MW and then in another part that the two new turbines will then bring the output to 90MW. So the first thirteen turbines make 66MW which is just over 5MW each. Turbines 14 and 15 must be magic turbines as they bring the output up to 90MW which is 12.5MW each.

24)IN 3.6.4.2 CWF refer to the use of the borrow pit. Currently the borrow pit is a hilly field. This will be flattened when the quarrying is finished and the soil is replaced. They will also be using local quarries. So why use the borrow pit at all?

25)The electricity substation will be increased from the size proposed in the original planning application for Coole Wind Farm. In 3.6.4.3 it states that the footprint will be expanded and the station moved but not by how much.

26)In this section CWF discusses minimising the visual impact of the electricity substation, which is amusing considering the overwhelming visual impact of fifteen 175 m high turbines on a rural landscape.

27)3.7 Grid Connection: A meeting was held with EirGrid regarding the Grid connection after Coole Wind Farm withdrew their application for a grid connection from Westmeath County Council. This has led to Coole Wind farm

applying to The Commission for Regulation of Utilities (CRU) for acceptance into the ECP2.1 process.

28) The grid connection route for Coole Wind Farm SID is unchanged from the route for Coole Wind Farm rejected by Westmeath County Council in the summer of 2020.

29) In the first 2.4km of the route from Coole to Mullingar 27 landowners were identified as having land running parallel to the road corridor where the grid connection is proposed to be laid. CWF have stated that they did not pursue this option as it was unlikely that all landowners would participate.

30) 3.8 Alternative transport route and site access

It is claimed that local road L57671 was not used as a turbine component delivery route after consultation with local residents. This is untrue. Firstly this road is very narrow. It is mostly between 2.7 and 3.3 metres wide with several homes lining the road. It is also mostly only hardcore and very shallow tarmac and would be unable to carry these heavy loads. Secondly, the road is the only road used as access into Clonsura bog by Westland Horticultural Limited: Both Coole Wind Farm and Westland Horticultural plan that peat harvesting will continue onsite. The road is being left for Westlands use, not because of the "consultation" with residents.

31) 3.9 Forestry felled onsite will not be replaced locally but in a site chosen in Co. Roscommon.

32) Coole Wind Farm claims to have avoided encroaching onto sensitive areas of the site. There is a pNHA Lough Bane which has a crannog on it situated very close to Turbine no 2. The further drainage of the bog to facilitate the turbine and its infrastructure will damage the lake and the crannog.

33) The area directly behind turbine no 1 has a several acres of untouched and undrained bogland. The very front of this area is slightly dry, but the area further in is rich with sphagnum moss hillocks and developing bog. If turbine no 1 and its infrastructure was to be built that would cause further damage to this beautiful part of bogland.

Chapter 5: Population and Health

5.1: 'Human beings as individuals or communities should experience no significant diminution in their quality of life from direct, indirect or cumulative effects arising from construction'

Within the quarrying site there are 4 individuals with autism. One of which is a young individual [REDACTED] He is homeschooled. This means that not only

will his life experience be affected negatively due to the implication of the Coole Westmeath wind farm but also his education - which is a vital part of developing one's future. . His home is his sanctuary from the cumulative effects of general social interaction, as he is both noise and dust sensitive, access traffic and quarrying will make life untenable for him. There will be no respite from construction phases. This also applies for any retired or housebound individuals living within the area as assumption is made that homeowners will be at work. There are several incidences of both within our immediate area.

"a wind farm is not a recognised source of pollution" "as such a wind farm is not considered to have ongoing significant emissions"

massive amounts of concrete
Concrete is alkaline and leaches into the soil the bog is acidic. Will it change the fundamental structure of the bog?

5.3.2: "There are no key identified tourist attractions"
How about tourist potential?
How about the oak bog road?

5.7.51 Turbine dimension. No actual turbine has been selected. They want it put out to tender if planning is granted,

How can planning be granted on an installation that has not been fully disclosed. We have to state our plans and full dimensions and finish on domestic housing

Turbine blades: Light flicker
"Possibility of 33 out of 55 properties may exceed the DOEHLG guidelines"

5.7.2: "The DoEHLG Guidelines state that at distances greater than 10 rotor diameters from a turbine, the potential for shadow flicker is very low. "

Rotor length?
"For the purposes of this assessment, a turbine with a rotor diameter of 155m is modelled in order to assess the worst-case scenario"
 $155\text{m} \times 10 = 1550\text{m}$

5.9.3.9 : Coole Wind Farm Ltd. continues to commit to zero shadow flicker at occupied residential receptors within 10 rotor diameters of the Proposed Development. Proposed Mitigation Measures

"The closest Coole Wind Farm, Co. Westmeath - EIAR Ch 5 Pop & Human Health F - 2021.03.22 - 200445 5-32 occupied dwelling H14 (i.e. dwelling not involved with the Proposed Development) is located at a distance of approx. 700 metres from the nearest proposed turbine T11. There are 2 no. dwellings, H18 & H24 which are located at distances of 638m and 679m from T15 respectively however these are individuals involved with the proposed development."

Suggestion of coole wind farms..."may not be witnessed if curtains or blinds in the bedroom are closed"

"4 and 5 are participating properties" that is 2 out of 55...that is not a good uptake

Chapter 6 Biodiversity

Destruction of ecosystem would have an adverse impact on biodiversity

The EU water Framework Directive (2000/60/EC) requires all Member States to protect and improve water quality in all waters. Water quality of the Glore and Inny rivers at sampling points closest to the proposed turbine construction is moderate to good. The scale of this construction and its proximity to water bodies will neither protect nor water quality as required under the directive. Lough Bane is only 10m from the nearest road infrastructure and 50m from the nearest turbine – yet even with this close proximity Coole Wind Farm are claiming there will be no direct effects and no potential for indirect effects. Habitat map 6.4 distinctly shows the lack of a buffer zone between the peat harvesting area and the Inny River – this along with the lack of functioning silt traps would likely be contributing to the poor water quality. The proposed wind farm is intended to coexist with peat harvesting on the same footprint. This would lead to a cumulative effect potentially reducing water quality even further and consequently having a detrimental effect on biodiversity in the immediate vicinity and downstream.

Flora and Fauna

Table 6.8 NPWS records for rare and protected species –referred to but not included.

Non-volant mammals

"Evidence of additional non-volant Mammals was not recorded during the site surveys. However it is likely that species such as Pine marten, Irish Stoat, Red squirrel, Pygmy shrew etc. occur within the study area at least on occasion."

Pine Marten and Pygmy shrew are plentiful in the area. The fact that there were no recorded sightings of these animals within the footprint of the site would require one to question their capabilities. The red squirrel population in this area is increasing. All efforts should be made to ensure available habitats are protected to aid their survival and allow them to flourish.

The studies conducted for non-volant mammals focused only on the construction phase of the development and have not referred to the operational phase of the wind farm and its effects on non-volant mammals living in its vicinity. Lopucki et al 2017 states that "greater weight should be given to the effects of wind farms on non-volant wildlife than is currently the case." Investors and regulatory authorities should always consider and attempt to mitigate the likely impact of wind farms on terrestrial animals during environmental impact assessments. The impact of a wind farm should be considered in terms of not only the construction but also the operational phase."

"Wind turbines may have a stressful impact on some species of small mammals living in their proximity." (Lopucki et al 2018) The main factors "include permanent exposure to the aerodynamic noise of wind turbines and episodes of mechanical noise. These factors may increase the general vigilance of animals by masking the acoustic warning signals from the environment most of the time and by exposing animals to sudden, unexpected mechanical sounds repeated many times throughout the day." (Lopucki et al 2018)

Marsh Fritillary

Marsh Fritillary (*Euphydryas aurinia*) are protected under the EU habitats directive and listed as vulnerable. NPWS 2013 states that the population and future prospects are inadequate and the overall trend for this species is declining. Peat extraction is deemed a medium threat to its habitat and anthropogenic reduction of habitat connectivity is ranked as a high threat to their habitat. The two activities would surely have a cumulative negative effect on its habitat which is the cornerstone to the survival of this species in Ireland. They have been identified as present in N36, N37, N45 and N36 hectads which are in the footprint of the site.

Do nothing effect

"An alternative land-use option to developing the Proposed Development would be to leave the site as it is under its current planning permission." Which is "designed to co-exist and operate independently of land use practices of commercial peat harvesting and forestry to minimise impacts." (Chapter 6 Biodiversity, Pg 6-69)

"A second potential Do-Nothing scenario exists for this project i.e. assuming that the permitted development is not constructed. In this scenario the existing baseline environment will evolve in one of two potential ways, either the peat extraction ceases and a rehabilitation plan is developed or the peat extraction continues and then a rehabilitation plan is developed." Therefore the construction of the wind farm will eliminate any possibility of rehabilitation of cutover bog which would be a condition of the terms of an EPA licence for peat extraction. This would prevent successful applications for EPA licences and therefore peat extraction rendering option one of the 'do nothing effect' impossibilities. Therefore the wind farm and peat extraction cannot co-exist with the previous or current proposed wind farm developments.

References

Lopucki R, Klich D, Gielarek S. Do terrestrial animals avoid areas close to turbines in functioning wind farms in agricultural landscapes? Environ Monit Assess. 2017; 189(7):343 (<http://creativecommons.org/licenses/by/4.0/>)

Lopucki R, Klich D, Scibior A, Golebiowska D, Perzanowski K. Living in habitats affected by wind turbines may result in an increase in corticosterone levels in ground dwelling animals. Ecological Indicators, Volume 84, January 2018, Pages 165-171

Chapter 7 Birds

Re Windfarm Submission

Chapter 7 Birds

1. Questionable assessment of bird collision rates

- 1.1 The potential mortality rates used in models for predicting the impact of particular wind farms are based on the majority of studies which quote low collision rates and these in turn are based only on found corpses. This has led to a significant under recording of the actual number of collisions.
- 1.2 Even when collision rates are low this does not necessarily mean the mortality is insignificant. Even relatively small increases in mortality rates may be significant for populations of some birds, especially long lived species with generally low annual productivity rates and notably when their numbers are in decline.
- 1.3 There are to date **no studies** comparing risk assessments published in wind farm submissions and the actual mortality rates recorded after a wind farm becomes operational. This lack of pre and post construction mortality comparison is alarming because these prior risk evaluations are an integral part of the procedure of accepting or rejecting permission of new wind farms.

Questionable use of 2003 study to assess magnitude and significance of potential impact

The submission places a total reliance on assessing the magnitude and significance of potential effect on the assessment prepared by *Steve M. Percival. 'Birds and wind farms; A review of potential issues and impact assessment'* prepared in 2003. This was not a scientific study and was not subject to a peer review process. It was a desk-top study of available literature, some of which dated as far back as 1989, on wind farm impact on birds from around the world, none of which had been undertaken in Ireland. Whilst some attempts were made to match habitats these did not, in the main, match the bird species in Ireland.

To use a desktop study with data not generated in Ireland and some eighteen years old cannot be said to represent an accurate assessment relevant to this particular wind farm application in 2021.

Chapter 8: Land Soils and Geology

- The borrow pit is 6.21 Ha in size. It is estimated that 251,915 cubic metres of hardcore will be extracted for use on the Wind Farm site. To do this 74,400 cubic metres of topsoil will have to be scraped off, stored and put back once the borrow pit is finished with.

- In the 2017 planning application the borrow pit was the same size, 6.21 Ha, they were to extract 200,000 cubic metres (only 13 turbines) but only 38,000 cubic metres of topsoil was to be cleared and then put back.
 1. Why is there now double the amount of topsoil to clear?
 2. Where is this huge amount of topsoil going to be stored during the extraction of the borrow pit?
- Each turbine foundation will require 600 cubic metres of concrete and lean mix. This will be coming in ready mix lorries, approximately 70 concrete lorries per turbine, making a total of 1,050 concrete lorries entering the wind farm site but no delivery route has been planned. It is thought the L5755 will be used.
- To cart 250,000 cubic metres from the borrow pit to the various parts of the wind farm site will need approximately 17,000 lorries.
- The most direct route from the Borrow Pit to the site and for many of the concrete lorries coming to the site will be along the L5755. A single track lane that cannot take 2 large lorries passing each other, let alone up to 18,000 lorries heading up and down the road. No where in the application is it mentioned that the L5755 is to be upgraded, widened or made into a road suitable for this amount of traffic.
- A high volume of air pollution, dust, noise and other pollution will be caused by this amount of traffic on a very small, country road.
- If 600 cubic metres of concrete are being poured into each turbine base as a foundation, it would be presumed, that as most of the turbines are going to be sited on bog, that 600 cubic metres of peat will have to come out. However, it states that peat will only be extracted at 2 turbine sites – this seems strange.
- It states that the extracted dry peat will be used for 'landscaping'. This peat has no nutrients in it and is therefore rendered useless as a growing medium, not a good way to landscape.

Chapter 9: Hydrology

The main point that arises from this chapter is that ALL the drainage from the windfarm, from the field drains, the main drains, through settlement ponds and soakaways, all run into the Rivers Inny or Glore, which itself runs into the Inny.

A huge quantity of ground water will be displaced by the turbine foundations, access road, hard stands, and new roads running into the River Inny and then into Lough Derravaragh. The Inny is a boundary for Garriskill bog, with the water system running on to Scragh Bog. All of which are NHAs and SPAs.

In the winter month of 2020 the Inny broke its banks in a number of places with quite extensive flooding in low lying areas. This brings the water level of the silt ponds up to flood level and over the silt traps, allowing peat to flow directly into the river.

Therefore any rise in water levels by excavation work on the wind farm, or any pollution by excess peat, concrete leakage or other chemicals would run through the

Inny Basin into Lough Derravaragh, and Garriskill bog, which 'because of its relatively good condition the site is considered to be one of the best remaining examples of a raised bog ecosystem in the eastern half of the country'. This could have a big environmental impact on the structure of the bog, the water quality of Derravaragh and the surrounding streams and water systems.

Conservation work has been carried out to Garriskill Bog in recent years as 'Arterial drainage of the River Inny (undertaken by the OPW in 1996 and initially during the 1950s) is likely to have impacted on the site and may continue to pose a threat to the hydrological integrity of the site.' Any work upstream from Garriskill Bog that may upset the Inny River and its relationship with the bog could have a negative effect on the Hydrogeology of Garriskill and Scragh Bogs.

Lough Derravaragh is considered at risk from Acidification and this is likely to become worse with the large quantities of peat that will be disrupted and moved during construction of the wind farm.

Chapter 10: Air & Climate

10.2.4.2.

The Emissions of Exhaust and Dust during the construction phase are dismissed as being 'negligible and short term'.

There is no figure placed on the number of vehicles or the type of vehicle arriving or leaving the site per day. The area of the Coole Wind Farm is very rural and the roads are narrow, The large quantities of lorries will negatively impact the area.

There are no figures on the duration of the excavation of the Borrow pit or the time needed to reinstate the borrow pit and thus how long the dust will affect the local residents from that alone.

What are the applicants basing their 'negligible and short term' comments on?

Table 10-9 Data Met Eireann Weather Station at Mullingar 1978 to 2008

Wind ((knots)

Mean monthly speed	7.6 knots = 3.8 m/s = 13.7 kph average per annum
Max gust	58.5 knots = 28.5 m/s = 102.6 kph average per annum
Max mean 10- minute speed	32.8 knots=16.4 m/s = 59 kph average per annum

This indicates the average monthly wind speed is 3.8 m/s which asks the question is this really the correct place to put a wind farm to give the best wind to power conversion?

Met Eireann's Annual Average Wind Speed data for 1981 to 2010 has Mullingar (14.1 kph) having the third lowest average wind speeds with only Kilkenny (12.8 kph) and Birr (12.4kph) lower. This again asks the question – if you are going to build industrial wind farms why are you building in the middle of the country, where the winds are lowest and not off the coast where the winds are substantially stronger? The average wind speeds at Wexford is 20.6kph for example, this is nearly a 50% increase of average wind speeds to that of Mullingar. The increase in installation cost would be outweighed by the increase in power production.

According to Energy Educate from the University of Calgary if the wind speed doubles the power output will increase eight times. This would mean the power generated on the East Coast as in at Wexford would be 4 times that generated in Mullingar. That is a 50% increase in average wind speed which would give 4 times the output of power. The centre of Ireland is not the place to erect industrial wind farms.

Appendix 10.1 Carbon Loss Calculations.

The original Planning permission application which is under Judicial Review had very different values for the output for each turbine. Appendices 10.1 Carbon Calculations for the present, 2020, application has the Power Rating for one Turbine as 5MW to 6MW whereas the same appendices in the original application, 2017, has the power rating of each turbine as 3.6MW to 3.8MW. This seems a very large increase per turbine with no qualifying of these figures other than a line in the documents to An Bord Pleanala that the blades on the turbines was to exceed the permitted length but staying below the 175m high blade tip maximum height. This must mean the hub height is to reduce

The 2020 figures give output of 15×5 to $6\text{MW} = 75\text{ MW}$ to 90 MW . The capacity factor is quoted as 35%.

The 2017 figures give output of 15×3.6 to $3.8\text{ MW} = 54\text{MW}$ to 57 MW . The capacity factor is quoted as 40%

For the Wind Farm to quantify its saving of carbon and therefore helping of the Climate, the carbon figures are the centre pin of the whole application. This amazing improvement in the efficiency of the turbines should be explained. There are no figures to quantify how the applicants arrive at the figure of carbon loss for manufacturing, constructing and decommissioning the turbines, these should be quantified.

Chapter 11 Noise

11.3.3.1. Infrasound/Low Frequency Noise

With respect to infrasonic noise levels below the hearing threshold, the World Health Organisation (WHO) document Community Noise (WHO, 1995) has stated that:

1995 is very outdated for Wind Turbine noise.

In June 2020, a report was released by the Finnish Government⁴ presenting results of a project that investigated the infrasound produced by wind turbines and its effects through surveys, long-term measurements and exposure tests.

The surveys identified symptoms subjectively associated with infrasound from wind turbines were commonly within 2.5 km of the closest wind turbine and the range of symptoms experienced were broad. One third of residents with symptoms associated with infrasound subjectively were more likely to attribute their symptoms to wind farms and consider wind turbines disruptive health risks.

Long-term measurements were conducted collecting 308 days of data in two areas within 1.5 km of wind turbines operating between 3 to 3.3 MW. In measurements, infrasound levels were similar to the levels occurring typically in urban environments. The infrasound samples representing the worst-case scenarios were picked out from the measurement data and used in the exposure (listening) tests.

Firstly, the tests were carried out within 2.5km of the turbines where as the Coole Wind Farm turbines are substantially closer to dwellings. Secondly the Coole Wind Farm turbines are to be operating at 6MW. How do these deductions have any relevance to Coole Wind Farm?

11.5.3.1 The Turbine Assessment

The noise levels :

Table 11-22 Review of Predicted Turbine Noise Levels against Relevant Criteria

The Noise Levels, dB LA90 are given at wind speeds up to 9 m/s. Looking at the wind speeds in Table 10-9 below there seem to be max mean 10-minute wind speeds up to 16.4 m/s. This will give dB LA90 above the 45 dB LA90 levels proposed for this development. This will majorly affect the lives of people living near the site.

Table 10-9 Data Met Eireann Weather Station at Mullingar 1978 to 2008

Wind ((knots)

Mean monthly speed	7.6 knots = 3.8 m/s	average per annum
Max gust	58.5 knots = 28.5 m/s	average per annum
Max mean 10- minute speed	32.8 knots = 16.4 m/s	average per annum

Appendices 7-5

Table 2-1 Windfarm Parameters at Coole Wind Farm Wind Farm Component Scenario Modelled

Assumed turbine model SG6.0 - 155	GE 3.6 -137
Number of turbines 15	13
Blades per turbine rotor (3d model used) 3	3
Rotor diameter (m) 155	140
Rotor radius (m) 77.5	70
Hub height (m) 97.5	105
Swept height (m) 20-175	35-175
Pitch of blade (degrees) 25	30
Maximum chord (m) (i.e. depth of blade) 4.5	4
Rotational period (s) 6	6.82

The figures in black are the 2020 application the figures in red are the 2017 application

11.3.7.2.1. Turbine details

'For the purposes of this assessment predictions have assumed the source of noise at the hub height of 100.5 m.'

This hub height does not agree with the 2020 or the 2017 turbine descriptions. The lower the hub height surely the higher the noise of the hub to surrounding areas. There should be consistency within the application.

Chapter 12: Landscape

12.1 Introduction

"As detailed in Section 2.5.1, Chapter 2 of this EIAR, there is a current grant of permission on the Proposed Development site for a wind farm consisting of up to 13 no. wind turbines with a tip-height of 175 metres, upgrading existing internal access roads, providing new internal access roads, an on-site substation, underground cabling, temporary construction compound, and ancillary infrastructure. An Bord Pleanála issued the decision to grant permission for the wind farm on 27th March 2020.

- 1) This statement above is incorrect and is deliberately misleading. Westmeath County Council refused planning permission for the proposed thirteen turbine industrial wind farm called Coole Wind Farm in December 2017 under a clause in their County Development plan called PWIN 6. Coole Wind Farm brought the case to An Bord Pleanála in January 2018. After two delayed decisions An Bord Pleanála granted planning permission in March 2019. The North Westmeath Turbine Action Group sought a Judicial Review on this decision. The Judicial Review was granted. The case was fully heard in the Commercial High Courts in March 2020. No decision has been made to date. Therefore the grant of planning permission is not currently valid as it is in contention. Coole Wind Farm makes this deliberately misleading claim throughout this planning application. If permission for the thirteen turbine wind farm had been fully passed in 2019 (not 2020 as also incorrectly claimed) then the thirteen turbine Coole Wind Farm would be built and operational by now, not seeking to enlarge itself to SID status to avoid the current planning deadlock.
- 2) The site itself is on low lying peatlands but is adjacent to the Northern Hills and lakes which are the highest land masses in the county. The design layout should take those landscape characteristics into consideration. It does not.
- 3) The Midland Regional Guidelines 2010-2022 do not insist that industrial wind turbines go on peatlands. The Westmeath County Development Plan 2014-2020 and 2021-2027 both have clauses directing large scale turbines to ten times the nacelle height away from homes. Only two of Coole Wind Farm SIDs fifteen turbines fit this criteria.
- 4) There is a pNHA known as Lough Bane onsite very close to turbine no 2. Lough Bane also contains a crannog.
- 5) There are no large scale industrial buildings or structures of this size anywhere in this area. Homes are single or two storied dwellings. There are no large scale factories. The one wind mast that was erected without planning permission and has since removed was 80m high, 95m lower than the proposed turbines.
- 6) Proposed turbine no 15 is situated 638 m from one dwelling and 679 m from another dwelling. This does not conform to the Revised Draft Guidelines for Wind Energy 2019.

- 7 In the 2014-20 Westmeath County Development plan all areas of the county are designated low wind energy apart from Uisneach which is designated no wind energy. In the 2021-2027 Westmeath County Development Plan one area has been changed from low wind energy to medium wind energy.

12.2.1 Project Description

- 8 The forestry cut down in order to accommodate a turbine will not be replanted onsite but in Co. Roscommon.
- 9 There are two homes which are not located greater than 4 times the tip height away from occupied dwellings according to the Wind Energy Development Guidelines 2019.
- 10 The turbines are at a height of 175m. Ground level is between 75m above sea level on the site itself. The highest local landmark is the Hill of Mael at 240m above sea level. This means that the turbines at 175m high will be 10m higher than the highest local landmark. This will have a detrimental visual impact on the area.
- 11 The turbines are clustered together and connected to each other visually. The site location is flat with little screening. These industrial scale light white- grey turbine machines will completely dominate this predominantly green and brown rural landscape and change it forever. Not only ruining it now but setting precedence for further industrialisation to come.

12.3.1 Landscape and Visual Impact Assessment Criteria

- 12 There is no way that any form of planting could possibly screen 175m high industrial turbines on this landscape.
- 13 The nature of this landscape is rural. Some areas are flat running into the rivers and lakes and some areas are hilly. The highest local landmark, the Hill of Mael, is 240m above sea level. Imposing industrial turbines on this landscape affects it dramatically and in a very bad way.

12.3.3 Guidance and other information used in the Landscape and Visual Impact Assessment

- 14 While Ireland signed and ratified the European landscape Convention in 2002 the Guidance from The Department remains in draft form and Coole Wind Farm have relied on guidance developed primarily in the UK for Scottish onshore wind farms. Coole Wind Farm has also chosen to dismiss the guidance developed by Westmeath County Council who is the local planning authority. The Scottish landscape which is mountainous and rugged and very sparsely populated in the highlands where most of the wind farms are located bears little resemblance to the flat gently undulating pastoral landscape in the

Irish Midlands. This UK guidance is not fit for purpose in the Midlands of Ireland.

12.3.4.1 Study Area

15) The proposed wind farm will be visible from beyond the 20km radius assessed through ZTV and some photomontages.

16) Coole Wind Farm admits that the visual impact on the landscape could be significant.

Consultation

17) There are no photomontages of the turbines on the local roads traversing the site where 15 residences are situated between 700m and 1000m of one or more turbines and two residences are situated less than 700m from a turbine. The visual impact on the families living in such close proximity of this proposed development has not been adequately assessed.

18) The proposed development will impact visually on several areas of high amenity such as Lough Sheelin, Lough Lene, Lough Derravaragh, Lough Ennell and Lough Owel. This goes against WMCC development plans for 2014-2020 and 2021-27

12.5.5.1 Landscape Value

19) CWF acknowledge that the views from Lough Crew, Frewin Hill and Mullaghmeen and views of the lakelands have high aesthetic quality and are designated scenic amenity in the relevant County development plans. Coole Wind Farm if built will have a permanent detrimental effect on those and other science views in our landscape and will hugely damage the potential of North Westmeath as a tourism industry.

20) Westmeath county Council intend to extend the Westmeath Way through the area making use of the unique features of this site such as the pNHA Lough Bane and the crannog onsite linking it to the Tain and Fore trails and Mullaghmeen trail and developing the Bronze Age Walkway into a cultural stop off point. This will not happen should Coole Wind Farm be built.

12.6.5 Route Screening Analysis Results – Roads within 5 Kilometres

21) Coole Wind Farm admits that screening of the proposed turbines by trees and bushes is sparse at best in the roads between 1-3 km of the proposed turbine site.

22) There is no mention of screening analysis for the homes less than 1km from any turbine. Those of us living closest to the proposed turbines have not been considered at all.

Photomontage Booklet

23) There are no photomontages showing the impact of the turbines on the roads and homes closest to the proposed wind farm. Our homes will be devalued and the

visual impact for us will not be fleeting as it will be to those travelling through this area but permanent and detrimental.

25) The proportions of the wire framed turbine images on the wire frame landscape and the photoshopped turbines on the photomontages are wrong and based on the narrower blade width turbines planned to be used for the non SID Coole Wind Farm. In the turbines planned for Coole Wind Farm SID 88.5% of the full turbine height consists of the diameter of the blade. The blade size in these images is based on the narrower turbine where 80% of the full height of the turbine consisted of the diameter of the blade. All of the photomontages are inaccurate and do not show the full impact of the turbines as the width of the turbines has increased by over 11% from 140m to 155m in diameter. To prove my point take a look at any of the wire frame images. The 13 turbine Coole Wind Farm images are drawn in green and the 15 turbine Coole Wind Farm images are drawn in blue. The proportions of the blades should have increased by over 11% from the green to the blue wireframe images. They have not.

26) The photoshopped images of turbines on the photomontages are not in keeping with the genuine width of the turbine blades and towers. For example in Photomontage 7, images 39-44 the images of the turbines in the photoshopped images are noticeably narrower than in the wire framed images. This is a deliberate attempt to fool people into thinking the turbines will have less of a visual impact on the landscape.

27) Photomontage no 3 taken 4.4Km from the nearest turbine on the regional road near Lismacaffrey shows the turbines completely dominating the landscape and looming over the hills in the background. This image clearly shows the industrialising effect these giant turbines will have on the rural landscape if built.

28) Photomontage no 4 taken 4.6 km from the nearest turbine in the townland of Cloonamore shows the turbines clearly over the treeline. This image shows the industrialising effect these turbines would have on our local rural landscape.

29) In photomontage no 5 the image comes from the townland of Ballywillan which overlooks the bogland and the beautiful Hill of Mael and Rock of Curry, two local landmarks and some of the highest landmasses in the area. In this photoshopped image the turbines are clearly visible in the landscape. They look to be almost the height of the local landmarks, tower above the bogland and break the otherwise unbroken skyline dramatically. This is bad enough. But this image is not at all accurate. Firstly the turbines themselves are 175m high situated on bogland 75m above sea level, making a combined total of 250m above sea level. The Hill of Mael is 240m above sea level. The turbines are to the fore of the Hill, therefore should appear larger than the hill. They do not. Secondly the turbines are a light white-grey colour not a dull light brown as portrayed in these photomontage images. This makes them appear less distinct against the winter landscape in the background. These images are deliberately misleading, disingenuous and inaccurate and are designed to fool local residents and An Bord Pleanála into thinking that the turbines will have a negligible effect on the landscape. This cannot be allowed.

30) Photomontage no 8 is not taken in the actual location of protected view no 51, but in the vicinity of the view, this is highly inaccurate and deliberately misleading.

31) The Hill of Mael and Mullaghmeen Forest are the highest landmarks in the county at 240m and 258 m high. In photomontage no 10 we see the protected view from regional road R195 looking towards Lough Glore. In this photomontage the turbines are clearly delineated against the sky and stand tall over the tree tops. However if you look at the size of the turbines it can be clearly seen that they are shown many metres shorter than the hills to their right. This is incorrect. The turbines are 175m high and stand on ground 75m above sea level. That means that they should each look to be 10m taller than the Hill of Mael and 8 m shorter than Mullaghmeen. The images shown in Photomontage no 10 are highly misleading and dishonest.

32) In photomontage no 11 the view from Sliabh na Callaigh at Lough Crew a national monument and protected view the turbines are depicted as being the same colour as the surrounding landscape and blending into the sky. While atmospheric perspective will add a slight bluish hue to the light white-grey turbines at an extreme distance on a hazy day it will not obliterate them from view completely as is indicated in these photomontages. This is disingenuous and deliberately misleading.

33) In photomontage no 18 the view from Granard Motte the turbines dominate the landscape and can be seen clearly against the hills and landscape in the background. However the turbines have been depicted as dark grey in colour which they will not be. These turbines are too close to be affected by atmospheric perspective and have deliberately been darkened to diminish their effect on the landscape. This is disingenuous and deliberately misleading.

34) In photomontage no 21 the view from the cairn at Mullaghmeen (5.3 Km from the nearest turbine) the turbines completely dominate the flat lands of the landscape. They clearly show the industrialising effect these large scale turbines will have on the landscape if allowed to be built.

Chapter 13: Archeology

Contrary to goals for tourism and heritage in North Westmeath

Castlepollard was recently awarded almost €500,000 for regeneration and restoration with tourism very much in mind. The town is less than 7km from the proposed windfarm. Westmeath County Council comments as follows on this funding, emphasising the exploration of North Westmeath. It says that the award is

"To regenerate Castlepollard, building on the unique architectural heritage of the Town Square and Green, creating space for the community and visitors alike, restoring the Market House and delivering a Town Park, establishing Castlepollard as base, from where, visitors will explore the many sights of North Westmeath, enhancing the towns critical role as an economic driver for the region".

This application for the installation of giant industrial-scale wind-turbines into the landscape of north Westmeath will damage the context, detract from the interpretation and destroy the character of the archaeological and historic sites of the area. It will run contrary to the Council's wish to see people explore the many sights of North Westmeath.

Coilte's long-established forest recreation area at nearby Mullaghmeen was selected recently as the Irish Time's' Westmeath hike of choice for Westmeath¹. Mullaghmeen is an isolated area of forest, comprising the largest beech plantation in Ireland, rising above farmland to a height of 258m above sea level. This forest features on all hiking and outdoor sporting websites, such as Sport Ireland, Coilte² and Visit Westmeath.³ A few kms to the west, the proposed 15-turbine wind farm will reach to almost the height of the Mullaghmeen summit. The turbines stand on land that is 75m above sea level. The turbines are 175m high. The turbine tip will therefore reach 250m in height above sea level. This intrusion cannot be reconciled with strategies to develop tourism.

Chapter 14: Material Assets

While the grid connection is being constructed on the road from Coole to Multyfarnham, the road will be closed while works are carried out at the crossings of the River Inny – twice. There is no time limit on the road closures. This will add 9 miles twice daily to all those, including pupils and teachers at Wilson's Hospital school, who use this road on a daily basis.

The L1826 road from Coole to Multyfarnham is not a proper 2 lane road – there are no white lines down the middle of it and if a lorry is passing a car, one of them has to pull over to the verge. There are soft verges all down this road as it runs across the bog. In many places the grid connection trench will be dug in the middle of the road, and the cable joint pits being 2.5metres wide x 6 metres long at every 500 metres will be in the middle of the road. On top of the actual construction and trench digging it is estimated at

'Approximately 15 truck movements per day to each works area to both remove excavated material and deliver appropriate infill material. A small number of truck movements will be required to deliver cable route components (ducting, membranes, etc) to site.'

The application states that the road will stay open during most of the grid connection construction work. However, in the main the road is simply not wide enough to sustain a 2.5 metre hole in the middle, plus diggers, tipper lorries and construction

¹

<https://www.irishtimes.com/life-and-style/health-family/fitness/32-great-hikes-around-ireland-one-in-every-county-1.4514690>

² <https://www.coilte.ie/site/mullaghmeen-forest/>

³ <https://www.visitwestmeath.ie/get-outdoors/walks-wilderness/mullaghmeen-forest-trails/>

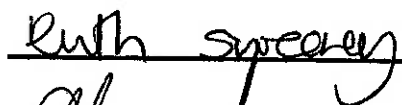
traffic to be able to keep the road open. For over 6 months this will cause huge disruption and expense to those that travel to and from Coole every day.

14.3: Three Ireland placed a communications Mast in Coole Village about 15 years ago. This is ignored and not shown on the map of Masts in the region – is this intentional, or do they plan to decommission this mast? The sightline from Coole Mast to the Finea Mast crosses the centre of the wind farm

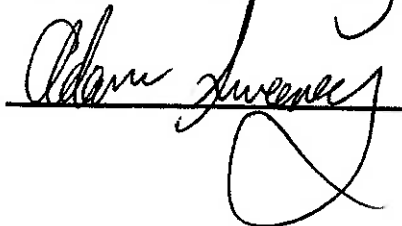
In the application it says: *'If the construction of the proposed grid connection does not proceed, the proposed development would not be constructed as it would not be viable without the grid connection. The potential to reduce Westmeath's and indeed Ireland's dependence on fossil fuels would be lost'* This sounds like blackmail.

Signatures

Ruth Sweeney

A handwritten signature in cursive script, appearing to read 'Ruth Sweeney', written over a horizontal line.

Adam Sweeney

A handwritten signature in cursive script, appearing to read 'Adam Sweeney', written over a horizontal line. The signature is more stylized and extends further below the line than the one above.