

Garry Dorgan

From: Bord
Sent: Friday 6 November 2020 10:26
To: Appeals2
Subject: FW: HSE submission for Cleanrath Windfarm Ref ABP-307939-20
Attachments: HSE Submission Cleanrath Windfarm ABP30793920.pdf

Importance: High

From: Shane O'Flynn (EHO) <Shane.OFlynn@hse.ie>
Sent: Friday 6 November 2020 10:23
To: Bord <bord@pleanala.ie>
Subject: HSE submission for Cleanrath Windfarm Ref ABP-307939-20
Importance: High

To whom it may concern:

Please find attached the HSE submission for Cleanrath Windfarm ref ABP-307939-20

Regards,



**Shane O'Flynn,
Environmental Health Officer**

*HSE South,
North Lee Environmental Health Service,
Floor 2, Block 1,
St Finbarr's Hospital,
Douglas Road,
Cork*

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For the most up-to-date and accurate information and advice on Covid-19 please visit www2.hse.ie/coronavirus/





North Lee Environmental Health Service,
Floor 2, Block 1 St Finbarr's Hospital,
Douglas Road,
Cork,

Phone: 021 4921801
E-Mail: ehonl@hse.ie

Date: 3rd November 2020

Our reference: 1385

Licence Type: Planning Application

Name and address of applicant: Cleanrath Windfarm Ltd

Location of facility: Townlands of Reananerree, Cloontycarthy,
Cleanrath North, Derrineanig, Cleanrath South,
Milmorane, Coombilane, Rathgaskig, Augeris,
Gorteenakilla, Carrignadoura, Gurteenowen,
Gurteenflugh, Lyrenageeha, and Lackabaun,
Co. Cork

Reference No: ABP-307939-20

EIS/EIAR submitted: Yes

**Planning Authority to whom
EIS/EIAR has been submitted:** An Board Pleanála

Dear Sir/Madam

Please find enclosed the HSE consultation reports in relation to the above planning application. If you have any queries regarding any of this report the initial contact is Ms Catherine McCarthy, Principal Environmental Health Officer, who will refer your query to the appropriate person

Yours faithfully,

Catherine McCarthy

Catherine McCarthy
Principal Environmental Health Officer

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Introduction

The following HSE departments were notified of the consultation request for the licence application on 7th October 2020

- Emergency Planning – David O'Sullivan
- Estates – Helen Maher
- Assistant National Director for Health Protection – Kevin Kelleher / Laura Murphy
- CHO – Michael Fitzgerald

This report only comments on Environmental Health impacts of the licence application.

Environmental Health Submission

Description of the project:

The Cleanrath wind farm development is comprised of the following components:

1. 9 No. wind turbines with a ground to blade tip height of 150 metres and all associated foundations and hard-standing areas.
2. All associated underground electrical (33kV & 38kV) and communications cabling connecting the turbines to the national electricity grid.
3. Upgrade of existing access junctions and roads.
4. Upgrade of existing and provision of new site access roads.
5. Borrow pit.
6. Temporary construction compound.
7. Accommodation works along the turbine delivery route
8. Temporary roadway to facilitate turbine delivery.
9. Forestry Felling
10. Site Drainage;
11. The operation of the wind farm for a period of 25 years.
12. The decommissioning of the wind farm, removal of turbines and restoration of the site.
13. All associated site development and ancillary works.

Non-Technical Summary (NTS)

In the experience of the Environmental Health service (EHS) the NTS is often the only document that is read by the majority of the general public during the planning process. It is therefore an important document in facilitating community engagement and knowledge about the proposed development.

The EHS has considered the NTS against the following criteria:

a) Does it provide an accurate summary of the main body of the Environmental Impact Assessment Report (EIAR) in non-technical language that is accessible to the general public, including a description of the project and alternatives considered?

b) Does it follow a logical format that is easily referenced across the main EIAR?

c) Does it identify potentially significant impacts from the proposed development and any proposed mitigation and residual impacts?

d) Does it identify consultation carried out and how outcomes have been built into the design of the proposed development?

And

e) Does it identify and uncertainties within the environmental assessment process?

Conclusion Regarding NTS

The following was noted by the EHS when reviewing the NTS:

- a) The EIAR can be accessed through the An Bord Pleanála website. The NTS provides an accurate summary of the main body of the Environmental Impact Assessment Report (EIAR) in non-technical language
- b) The NTS is clearly indexed and written in non-technical language. The incorporation, where appropriate, of explanations of process and legislation requirements around environmental assessment is welcomed by the EHS.
- c) The separation of assessment process, mitigation and overall predicted impact outcomes in each chapter facilitates good access to the information.
- d) The EHS is satisfied that the NTS is an accurate summary of the main body of the EIAR.

After reviewing the NTS, the EHS is satisfied that the NTS meets the review criteria stated above.

Public and Statutory Consultation

The scoping and consultation process is outlined in Section 2.4. Part of the scoping process was contacting the relevant authorities and Non-Governmental Organisations (NGOs) with interest in the specific aspects of the environment with the potential to be affected by the proposal.

An overview of the issues raised by the consultees is outlined in table 2.3 of the EIAR and the details of the individual responses received are set out in the relevant technical chapters in this table. Where appropriate, reference is provided as to where the comments have been addressed within this EIA Report.

Engagement with the public is outlined in Section 2.4.5 of the EIAR. This included direct consultation with a number of residences immediate to the Cleanrath wind farm development about the construction process. This consultation continued during construction where the local community were advised on the relevant construction stages, progress, deliveries and updates.

A Community Liaison Officer (CLO) was appointed to the project through construction and into the operational phase of the Cleanrath wind farm development. The CLO continues to engage with residents to provide information on the current status of the site and the potential resumption of operations. This has included discussions with local residents on issues such as the potential noise and shadow flicker. This consultation has continued with the CLO calling to close neighbours of the wind farm to advise them of their role and reiterate their availability should they require any further information, updates or engagement.

The CLO has also engaged with numerous groups, societies and organisations in the community in order to discuss the potential community gain benefits associated from the Cleanrath wind farm development.

The EIAR states that the CLO will continue to engage with the local community throughout this process and throughout the operational lifetime of the Cleanrath wind farm development.

The EHS is satisfied that the EIAR (rEIAR) has clearly demonstrated the link between public consultations and how those consultations have influenced the decision-making process in the rEIAR.

Air Quality and Dust

The main risk to air quality is from dust during the construction phase of the development. Sections 10.1.5.2.2 and 10.1.5.3.2 of the EIAR outlined the main measures that were implemented for managing dust during construction.

The main air pollutant during the operational phase of the wind farms will be exhaust emissions associated with machinery and vehicles that will be intermittently required onsite for maintenance, including the machinery involved in the minor peatland habitat restoration works and turbine component delivery vehicles. The EIAR states that the number of vehicles will be low. The EIAR also states that there will be no significant direct or indirect effects on air quality due to exhaust emissions in the operation of the Cleanrath wind farm development.

The EIAR states that the production of renewable energy from the Cleanrath wind farm development will have a longterm slight positive impact on air quality. This will be achieved by providing an alternative to electricity derived from coal, oil or gas-fired power stations and will result in emission savings of carbon dioxide (CO₂), oxides of nitrogen (NO_x), and sulphur dioxide SO₂.

The EHS is satisfied that there will be no negative impact to air from dust during the operation phase of the Cleanrath windfarm.

Chapter 5: Population and Human Health

The EIAR states that during the operational phase of the development of the 18 residential properties modelled; it is predicted that 16 properties may experience daily shadow flicker. This based on the 2006 Wind Energy Development Guidelines for Planning Authorities' published by the Department of Environment, Heritage and Local Government (DoEHLG), the daily threshold for shadow flicker is exceeded at these 14 properties. However this model was assuming worst-case conditions, i.e. 100% sunshine on days where the shadow of the turbines passes over a house, wind blowing in the correct direction, no screening present, etc. The EIAR goes on to specify that the DoEHLG total annual guideline limit of 30 hours is not exceeded at any property once the regional sunshine average of 32.5% is considered.

Despite the results the shadow flicker modelling the EHS welcomes the proposed mitigation measure outlined in section 5.9.3.4. The EIAR states that where, on the resumption of operations, daily or annual shadow flicker is found to have exceeded the threshold at any property through the verification at the property of the predicted model then the mitigation measure will be implemented as appropriate. These mitigation measures are to include screening measures and wind turbine control measures.

In addition to the above the EIAR also advises that no complaints were received with regards shadow flicker during the short-term operational period of the wind farm. This along with modelling results, proposed mitigation measures and continued contact between the Community Liaison Officer and local residents, satisfies the EHS that the measures outlined above will ensure that there will not be any significant effects on Population or Human Health in the area surrounding the Cleanrath wind farm development with regards shadow flicker.

Chapter 8: Land, Soils and Geology

The EHS reviewed the assessment carried out on the potential impacts on land, soil and geology during the operation phase and decommissioning phase of the development. The EHS are satisfied there will be no significant impacts and no remedial mitigation measures are required.

The EHS welcomes the proposal to restore an area of 4.3 Ha within the Cleanrath wind farm development to a peatland habitat. The EIAR states that this is considered to have a net positive impact on the soils and geology of the site.

Chapter 11: Noise & Vibration

The EIAR quotes a recent report published in Germany by the State Office for the Environment, where they conducted vibration measurements study for an operational Nordex N117 – 2.4 MW wind turbine. The report concluded that at distances of less than 300m from the turbine vibration levels had dropped so far that they could no longer be differentiated from the background vibration levels.

The EIAR states that vibration criteria have not been specified for the operational phase of the Cleanrath wind farm development. The EHS is satisfied that given it is of over 600m from any of the turbines to the nearest Noise Sensitive Locations (NSL's), levels of vibration are likely to be significantly below any thresholds for perceptibility.

The noise assessment in the EIAR has been based on guidance in relation to acceptable levels of noise from wind farms as contained in the 2006 Wind Energy Development Guidelines for Planning Authorities, which was, and still is, the only Guidance issued by the Minister under section 28 of the Planning and Development Act, 2000 specifically with regard to wind energy development. Planning Authorities must take into consideration the content of Guidelines issued under section 28 when making a decision on wind energy development. It was the above mentioned guidance that Cleanrath Wind Farm had its previous 2017 planning permission granted under.

In this planning permission Condition 7 refers to environmental noise and is as follows:

"Wind turbine noise arising from the proposed development, by itself or in combination with other existing or permitted wind energy development in the vicinity, shall not exceed the greater of

5 dB(A) above background noise levels, or

43 dB(A)

When measured externally at dwellings or other sensitive receptors.

The 2006 Guidance identifies predictive noise methodology based on the UK Guidance: 'The Assessment and Rating of Noise from Wind Farms – The Working Group on Noise from Wind Turbine (Energy Technology Support Unit, UK Dept Trade and Industry, 1996), commonly known as ETSU, 1996.

The process in ETSU, 96 can be summarised as:

- a) Establishing the existing background level of noise in the environment,
- b) Inputting variables based on the design of the project into a predictive model to predict noise exposure at NSL,

c) Comparing the predictive noise exposure against criteria to evaluate if it is significant or not.

As pointed out in the condition above the criteria in the 2006 Wind Energy Development Guidelines is that noise at NSL should not be above an absolute exposure of 45 dB(A), or increase the existing noise exposure by 5dB(A), except where the background is below 30 dB(A) and then a reasonable level of protection is an absolute daytime exposure of between 35 and 40 dB(A) and maximum night time exposure of 43 dB(A). (ETSU,96 rationalises a higher night time level due to the assumption that there is less need to protect residential amenity during the night).

Section 11.3.7 states that an environmental noise survey was undertaken to determine typical background noise levels at representative NSL's surrounding the development site. The background noise survey was conducted through installing unattended sound level meters at 3 representative locations in the surrounding area. The noise monitoring locations were identified by preparing a preliminary cumulative turbine noise model contour. Any locations that fell inside the predicted 35dB LA90 noise contour were considered for noise monitoring.

Section 11.4.1 is an overview and results of the noise monitoring data obtained from the background noise survey. The noise survey can be found at appendix 11-9.

Section 11.3.8 discusses the methodology for the noise modelling process for the computer-based prediction models that were prepared to quantify the cumulative noise level associated with the operation of the Cleanrath wind farm development together with the nearby Derragh wind farm.

Section 11.5.3.1 of the EIAR outlines the predicted noise levels for the Cleanrath wind farm development. The EHS are satisfied with the prediction models. The prediction models showed that the total noise levels measured i.e. the noise due to the wind farm and the background noise together, were comfortably below the limit values in the 2017 Permission in all cases. These are shown in Table 11-25 of the EIAR. The limit values set out in the 2017 permission are taken directly from the 2006 Wind Energy Development Guidelines for Planning Authorities.

Chapter 12 Geology, Hydrology AND Hydrogeology

The EHS considered the EIAR with regard to the protection of surface and ground water from potentially significant impacts, and in particular

Surface Water:

The wind farm site drains into five sub catchments, two of the sub catchments drain to Lough Allua and three of the sub-catchments drain to the Toon River.

A surface water flow/level monitoring network was installed in the downstream Toon River. An existing network exists within the River Lee and Sullane River catchments, which was used during the monitoring. Section 9.3.8 analyses the hydrographs for the Toon River and River Lee. The results showed the development has had no traceable/measurable impact on river flows or levels in either of the rivers. The EIAR advises that the development runoff volumes are small/negligible compared to the total flows in the Toon River and River Lee as a result runoff from the development site is having no measurable impact on river flows/river levels in either watercourses.

Surface water quality is covered in section 9.3.11. Monitoring/sampling and field hydrochemistry monitoring (electrical conductivity and pH) was carried out at 13 locations downstream from the wind farm from August 2018 and continued into the operational phase up to July 2020.

Results for ammonia N ranged between 0.01 and 0.43mg/L with an average of 0.039mg/L. There were 9 exceedances in total from 6 sampling locations. The EIAR states that High ammonia concentrations can be related to peatland runoff, or from agriculture or wastewater system discharges.

From these results the EHS is satisfied the sampling demonstrates that the development had no significant effect on downstream waters during the construction or operational phase of the development.

Ground water:

The EIAR states that there are no groundwater protection zones mapped within the development site or study area or along the grid connection route. In addition a search of the Geological Survey of Ireland (GSI) well database (www.gsi.ie) indicates that there are no private wells within 1km of the site. The EIAR goes on to say that the GSI well database is not exhaustive in terms of the locations of all wells in the area (as the database relies on the submission of data by drillers and the public etc) it is assumed that every private dwelling in the vicinity of the Cleanrath wind farm development has a water supply well associated with it (this is a conservative assumption).

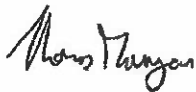
The EHS is satisfied that there will be no significant risk to ground water drinking supplies due to the distances of the development from wells and the nature of wind farms which are not recognised as sources of pollution.

Conclusion:

The EHS is satisfied that if all mitigation measures identified in the EIAR are implemented in full, than any likely significant risks to Environment and Human Health are adequately controlled.



Shane O'Flynn
Environmental Health Officer



Thomas Mangan
Environmental Health Officer
Environment Operational Unit



HSE South Emergency Management Consultation Report				
Report to	Catherine McCarthy, PEHO, Cork		Date	8 th October, 2020
Type of consultation: EIS <input type="checkbox"/> Scoping <input type="checkbox"/> Screening <input type="checkbox"/> EIAR <input type="checkbox"/> EPA <input type="checkbox"/>				
Other (please specify): Substitute Consent				
Authority	An Bord Pleanála			
Authority Reference Number	ABP-307939-20 EHIS 1385			
EM Reference Number	EMENV 059			
Applicant	Cleanrath Windfarm Development, Reananerre, Co. Cork			
Proposal	Substitute consent for the Cleanrath Windfarm Development			

HSE South Emergency Management Observations:

Please be advised that the HSE South Emergency Management function does not have any specific observations to make with respect to this application. However, please note the following recommendations within the context of site operations:

1. Should an incident occur at the site and the site operator requires the assistance of the emergency services, the incident information should be provided in the 'ETHANE' format (please see attached).
2. Emergency Services access to the site should be clearly identified. This should be undertaken via appropriate high visibility signage, i.e.; a green sign with a yellow border and white lettering citing the abbreviation RVP
3. The site should have a mechanism in place to account for personnel during an evacuation in order to provide the responding emergency services with an estimate of the number of people accounted and unaccounted for.
4. The site should identify any critical / vulnerable facilities within the geographical catchment area, such as hospitals, schools, nursing homes, etc, that could be directly or indirectly affected by an incident at the site.
5. Where the 'off-site' impacts of an incident at the site affects a vulnerable cohort / population such as children within crèches, schools; patients / clients / residents within nursing homes, etc; the emergency services will require assistance from the site operator in determining the impact on the local community.
6. The site operator is encouraged to develop a business continuity plan that includes a plan for severe weather. For more advice on this, please see the Department of Business, Enterprise and Innovation, *Business Continuity Planning in Severe Weather*.
<https://dbei.gov.ie/en/Publications/Publication-files/Business-Continuity-Planning-in-Severe-Weather-Check-List-for-Businesses.pdf>

All correspondence or any queries with regard to this report should be forwarded to Ms. Maryanne Horgan, Emergency Management Office, HSE South, Eye, Ear and Throat Hospital, Western Road, Cork, T12 WP62 or maryanne.horgan@hse.ie



Seirbhís Sláinte
Níos Fearr
á Forbairt

Building a
Better Health
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Dial 999 / 112 – Request the service you require: An Garda Síochána, Ambulance Service and / or Fire and Rescue Service

WHEN YOU ARE CONNECTED TO THE REQUISITE SERVICE(S)

GIVE THE FOLLOWING INFORMATION

This is: _____ Eircode _____
(Name, Telephone Number and Eircode Address of site)

An incident has occurred at this site - standby for ETHANE message

E	
	Exact location of the incident
T	
	Type of incident, e.g.; fire, explosion, gas leak, etc
H	
	Hazards – current and potential
A	
	Access and Egress – what is the safest approach route for responding emergency services and where is your emergency services meeting point (RVP)
N	
	Number of casualties and their condition – specify adult / children if known
E	
	The emergency services present and required

N.B. If you require another emergency service stay on the line and repeat the steps again

R.V.P.
No.1

