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To: [SIDS](#)
Subject: PAX16.324258 Tirawley Wind Farm
Date: Friday 12 June 2026 11:42:09
Attachments: [NEHS Submission Tirawley Wind Farm PAX16 324258.pdf](#)

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A Chara,

Please find attached the NEHS observations in relation to the above application.

Tim Coffey SEHO

Mayo PEHO office

FSS Seirbhís Náisiúnta Sláinte Comhshaoil, Áras Naomh Mhuire, Sean-bhothair Chathair Na Mairt, Caisleán an Bharraigh, Contae Mhaigh Eo.

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National Environmental Health Service Submission Report

(as a Statutory Consultee under the Planning and Development Acts 2000 (as amended) & Regulations made thereunder)

Date:	11 th June 2026
Type of consultation:	Strategic Infrastructure Development (SID) accompanied by Environmental Impact Assessment Report (EIAR)
Report to:	An Coimisiún Pleanála (ACP) Email: sids@pleanala.ie
Planning Case Reference No.:	PAX16.324258 / ACP-324258-26
Our Reference No.	EHIS 5912
Applicant:	JOD Planning Consultant on behalf of Constant Energy Limited
Description of Proposed Development:	Construction of the Tirawley Wind Farm (TWF) Development including 16 wind turbines, 1 no. meteorological mast, a Permanent Operations Compound, an Onsite Substation, Battery Energy Storage System (BESS), 17 no. Spoil Deposition Areas and all ancillary works, works along the Turbine Delivery Route (TDR) and the construction of an underground Grid Connection to Tawnaghmore 110 kV substation, Killala Business Park, Co. Mayo.

Dear Sir/Madam,

Please find below the HSE submission report in relation to the above proposal. The following HSE departments were made aware of the consultation request for the proposed development on the 5th May 2026:

- Emergency Planning
- National Capital Estates Office
- Director of National Health Protection
- Regional Executive Officer West & North West



1. Introduction

The HSE is a statutory consultee under Article 28 of the Planning and Development Act 2000 (as amended) and has a remit to make observations on a planning application accompanied by an EIAR with regard to any likely significant effects on Public Health. The National Environmental Health Service (NEHS) can make observations on any planning application as a statutory consultee.

The objective of any observations by the NEHS are to inform ACP on any likely significant effects on Public Health and give an opinion on any proposed mitigation to protect Public and Environmental Health. Any observations made are to inform and assist the decision making of ACP in the planning process.

The NEHS submission report is based on an assessment of documentation submitted with the planning application, particularly the accompanying EIAR.

All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate.

- No additional investigations/measurements were undertaken by the NEHS.
- This report refers only to those sections of the application documents that are relevant to the NEHS which have likely significant Environmental Health or Public Health Impact(s).

Criteria for Consideration of Likely Significant Effects on Public Health

The NEHS considers likely significant effects on Public Health as per the EPA issued National Guidance (known as the EIAR Guidance): Guidelines on the information to be contained in Environmental Impact Assessment Reports, 2022 https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Particularly section 3 of the EIAR Guidance on Human Health which is reproduced below:

Human Health

The recitals to the 1985 and 2011 Directives refer to 'Human Health' and include 'Human Beings' as the corresponding environmental factor. The 2014 Directive calls this factor 'Population and Human Health'.

While no specific guidance on the meaning of the term Human Health has been issued in the context of Directive 2014/52/EU, the same term was used in the SEA Directive (2001/42/EC). The Commission's SEA Implementation Guidance states 'The notion of human health should be considered in the context of the other issues mentioned in paragraph (f)'. (Paragraph (f)⁴⁷ lists the environmental factors including soils, water, air etc). This is consistent with the approach set out in the 2002 EPA EIS Guidelines where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water or soil, namely:

'The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment.'

In an EIAR, the assessment of impacts on population & human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.. The Advice Notes provide further discussion of how this can be addressed.

Assessment of other health & safety issues are carried out under other EU Directives, as relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives⁴⁸. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them.

The NEHS therefore considers likely significant effects within a population and Human Health context that uses a source – pathway- receptor model, based on emissions through environmental media and population exposure. The exposure of populations, if any, is then considered against recognised health protection criteria.

Whilst EIAR Guidance recognises the requirement to identify sensitive receptors within the assessment process, ACP should be clear that it is within a Population health approach.

A Population Health approach to the sensitivity of receptors would not consider individual specific sensitivity of a human receptor, but the sensitivity of the established land use or service provision. For example, a school would be considered a sensitive receptor within a Population Health approach, but an individual student who was particularly sensitive to noise attending the school would not be specifically considered in the assessment criteria. The exception would be a health care facility that provided services for people with recognised noise sensitivity would be considered in its entirety as a particular noise sensitive location.

The Population Health approach therefore has important differences in how likely significant effects on Population and Human Health are considered in EIA. The assessment should consider established land development and use and service provision and activities within communities and not individual members of communities.



It is recommended that the An Coimisiún Pleanála (ACP) also follows this method when consider Public Health in their decision-making.

The NEHS made a submission to ACP on the 24th November 2025 (Ref: PAX16.323778 EHIS Ref: 5323) for an EIAR and made a scoping submission on the 29th March 2023 to JOD Planning Consultants (Ref: 6289503/021 EHIS 3061).

These earlier submissions are still relevant to this application even though the PAX16.323778 application was deemed incomplete by ACP on 30th November 2025.

This report only comments on Environmental Health impacts of the proposed development as outlined in the EIAR and the adequacy of the EIAR from the Environmental Health viewpoint. The NEHS has made observations and submissions on the following specific environmental health areas.

- Public Consultation and the Non-Technical Summary (NTS)
- Population and Human Health
- Noise
- Shadow Flicker
- Soils and Geology
- Hydrology & Hydrogeology
- Food Safety and Environmental Compliance
- Construction Environmental Management Plan (CEMP) Appendix 2.1

The comments below are not exhaustive but serve to capture key points of the proposed development.

2. Comments from the Local Environmental Health Service

Population/Health/Amenity/Walking: Is seen to be considered in this 2026 application. Remedial measures are proposed to facilitate minimising disturbance to users of the Western way walking/cycling trail during construction and turbine delivery activities. Palmer's Gazebo, an historical landmark sited close to the location of proposed turbine AT16 is also assessed in the EIAR and recognised as a protected structure under the Mayo County Development Plan.

Other Material Assets: The CEMP and Local Authority road-opening licensing should afford protection/mitigation to the potential for damage/interruption to service to people locally during construction/deconstruction and grid connection route works.



Services, essential to residents potentially at risk include water, electrical and telecommunications infrastructure.

The continuation of the food cold chain for residents/food businesses and access routes for waste disposal for residential/commercial premises must be facilitated during construction and turbine delivery phases.

3. Description of the Project and Physical Environment

The applicant has submitted an EIAR on the proposed development including 16 wind turbines, Grid Connection in the townlands of Aghaleague, Ballymurphy, Ballynaleck, Barnhill Lower, Barnhill Upper, Barroe, Billoos, Carn, Carrickanass, Carrowmore, Castlackleck Demesne, Castletown, Cloonanass, Conaghra, Glebe, Lackanhill, Lecarrowntemple, Lissadrone East and Lissadrone West, Co. Mayo.

The Grid Connection Route will commence in the townlands of Barroe and will continue onto the townlands of Carrad More, Tawnaghmore Upper, Rathbaun, Carrickanass, Cloonavarra, Doonamona, Rathcash, Castlereagh, Rathowen West, Rathowen East, Magherabrack, Cloonawillin, Killala, Mullafarry, Lisglennon, Tawnaghmore Lower, Ballinteean and Carrowreagh Co Mayo

Proposed Development:

- Construction of 16 no. Vestas V117 (4.3 MW) IEC IIA – T wind turbines. This specific model with a blade tip height of 135 m, was selected as the candidate turbine and its associated parameters were used to determine the significant environmental effects associated with the Proposed Development. No flexibility in terms of turbines dimensions is sought as part of the application for Planning Permission
- Construction of permanent turbine hardstands and turbine foundations
- Change the use of a residential site and vacant dwelling to a permanent operations compound consisting of an operations office, storage area and staff parking
- Construction of two temporary construction compounds with associated temporary site offices, parking areas and security fencing
- Installation of 1 no. (35-year life cycle) meteorological mast with a height of up to 80 m and a 4 m lightning pole on top
- Development of 17 no. permanent onsite spoil deposition areas
- Construct 5 no. new permanent site entrances. The locations of each of these entrances are detailed in Figure NTS-3.



- Upgrade 9 no. existing site entrances. The locations of each of these entrances are detailed in Figure NTS-3.
- Works for new and upgraded entrances include clearing visibility splays of vegetation, widening the entrances to allow HGVs turn onto local public roads and the R314, excavation to solid formation level, installation roadside drainage features, placing entrance sub-base with rockfill materials, placing capping level and providing surface dressing where necessary.
- Road construction works within the wind farm site consisting of the construction of approximately 9.64 km of new site access tracks through the wind farm site. The upgrading of 1.76 km of private access tracks and 1.58 km of public roads within the wind farm site, road verge widening, hedge trimming and all associated infrastructure and drainage works.
- Forestry felling of approximately 31.86 ha of coniferous forest will be required to facilitate the construction of the proposed development. For the purposes of this proposed development, the developer commits that the location of any replanting (alternative afforestation) associated with the proposed development will be greater than 10 km from the wind farm site and also outside any potential hydrological pathways of connectivity i.e. outside the catchment within which the proposed development is located. The extent of felling required to be licensed for the purpose of giving effect to the proposed development can only be determined once planning permission for the proposed development has been granted. It will be a condition of the felling licence that an equivalent area of land required to be felled shall be replanted. The felling will be subject to a separate planning application which, in practical terms, can only be made once planning permission for the proposed development has been granted.
- All associated site development works including berms, landscaping, and soil excavation.
- Development of an internal site drainage network and sediment control systems.
- Construction of 1 no. 110 kV electrical substation including 2 no. control buildings with welfare facilities, all associated electrical plant and equipment, security fencing and gates, all associated underground cabling, wastewater holding tank, and all ancillary structures and works (the 'wind farm substation').
- Installation of battery arrays located within container units (20 no. units) and associated electrical plant for grid stabilisation adjacent to the onsite substation building (with up to 150 MW storage capacity) with surrounding palisade fence 2.65 m in height;
- All associated underground electrical and communications cabling connecting the wind turbines to the wind farm substation.
- All works associated with the permanent connection of the wind farm to the national electricity grid comprising of a 110 kV underground cable system in permanent cable ducts from the proposed, wind farm substation, in the



townland of Barroe to the existing Tawnaghmore substation at the Killala Business Park.

A 10-year planning permission and 35-year operational life from the date of commissioning of the entire windfarm except the substation is being sought. The proposed grid connection and onsite 110kV substation will remain in place as it will be under the ownership and control of the EirGrid and will form a permanent part of the national electricity grid i.e. will not be decommissioned with the wind farm at the end of its operational life.

The proposed development is situated within an area comprised of agricultural livestock grazing farmland, cutaway bog and conifer forestry plantation. A former abandoned quarry is located in the north-eastern section of the wind farm site in the townland of Castlelackan Demense. The Tirawley wind farm (TWF) boundary covers an area of approximately 108.06 ha. There are 266 houses within 2 km of the proposed turbines. The closest inhabited dwelling (H3) not connected to the proposed development is located 554 m from the nearest turbine (AT08). The dwellings H1 c. 265 m from turbine (AT12) and H2 located c. 321 from turbine (AT01) are both under control of the developer and are financial beneficiary of the proposed development. There will be no borrow pits, rock will be imported from local quarries.

The overall length of the grid connection is 13.55 km, of which 12.43 km is located along the public road corridor and 1.12 km is located within the Killala Business Park grounds.

The construction of the whole development is estimated to take approximately 21 months to complete.

A full description of the proposed development is provided in non-technical Summary (NTS) and Chapter 2 in more detail.

4. Public Consultation and Non-Technical Summary (NTS)

The NEHS is satisfied that the NTS provides an adequate description of the proposed project.

The EIAR does in parts demonstrate the link between public consultations and details how they have influenced the decision-making process in the EIA for this TWF in Co. Mayo. This was outlined in Chapter 1 section 1.11 and 1.11.1, Appendix 1.3 Scoping Opinions and Appendix 1.6 Community Engagement Report. NEHS notes re-scoping of the final layout to the prescribed statutory bodies and key consultees was carried out in December 2025.

The Public were informed of this Project through door-to-door visits to local residents in the vicinity of the Proposed development. The Applicant reached out to local community groups and third parties associated and/or interested in



the Proposed Development. This was followed by a Public Information Day (PID) which was held after June Bank Holiday on 6th June 2023 from 14:00 – 19:00. The event was publicised in advance through newspaper advertisement on the 30th May 2023 in the Western People. This PID referred to application of 24 wind turbines and 31 members of the public arrived at the PID of which 14 completed consultation forms. It is NEHS opinion that this PID had a low attendance rate, most likely due to the timing of the event. NEHS could not find any further local engagement after this PID.

The NEHS could not find details of a dedicated Community Liaison Officer (CLO) appointed for this development. This was referenced in our scoping submission dated 29th March 2023. The Draft Revised Wind Energy Development Guidelines (WEDG) 2019 by the Department of Housing, Planning and Local Government (DoHPLG) states the following from page 43:

The community report should set out how the developer will thereafter work with the local community on the format for public participation to allow for the free flow of information between the community and the wind energy developer at all stages in the project. Consultation should be meaningful, beginning sufficiently in advance of a submission for planning permission to give the local community an opportunity to comment upon and to have an input into the planning and design of the scheme. To enable the general public to engage with developers, evidence of formal procedures for dealing with queries and complaints must be included in a planning request.

Developers should therefore appoint an individual responsible for liaising with and being the point of contact for the local community from design to planning to construction stages to allow for dialogue and communication and to keep the public informed about the progress of the project.

A condition should be attached to all planning permissions for wind energy developments requiring developers to comply with the community engagement proposals set out in the submitted Community Report for the lifetime of the development.

In the interest of the protection of Public Health the condition in the Draft (WEDG) 2019 Guidelines above should be implemented if consent is given for the development. A dedicated CLO should be appointed for this development to ensure that there is on-going consultation with the Public from design to planning to construction stages for the lifetime of the development and any complaints are investigated and responded to in a timely manner.

NEHS notes from the NTS that a community benefit fund will be established under the RESS programme for 15 years. It is the NEHS's perspective that this should not reduce the public health protection measures for all those living near this proposed development.

Opportunities for Health Gain

NEHS recommends that the community fund should facilitate infrastructure for everyone and not only funding existing organisations. Consideration should be given to opportunities for health gain from the proposed development. This



would include opportunities to create recreational spaces, opportunities to increase physical exercise through walking and cycle routes. Where possible, pedestrian areas should be accessible to wheelchairs, pushchairs and mobility vehicles in order that all ages and all levels of mobility can access the improved recreational amenities.

5. Population Health and Human Health including Shadow Flicker

The NEHS has considered chapter 5 of the EIAR which assesses the impacts of the Proposed Development on population and human health during the phases of Construction, Operations and Decommissioning. The most relevant aspects highlighted draws upon findings of other chapters notable:

- Chapter 8: Soils and Geology
- Chapter 9: Hydrology and Hydrogeology
- Chapter 10: Air and Climate
- Chapter 11: Noise
- Chapter 15: Shadow Flicker
- Chapter 17: Traffic and Transportation

Consideration of Population and Human Health should be done in a proportionate manner that is specific to the proposed development and any likely significant effects the proposal might have on Population Health.

Particularly:

- Any likely significant effect from exposure to noise during construction and operation,
- Any likely exposure to shadow flicker during operation,
- Any likely significant reduction in air quality during construction, particularly dust and emissions,
- Protection of ground and surface water during construction activities from contamination with hydrocarbon spillages or sedimentary run off.

It is the opinion of the NEHS that the EIA has identified these areas for assessment, and they are reported in the EIAR.

The NEHS recommends An Coimisiún Pleanála (ACP) consider Chapter 5 in the context of our previous recommendations in this submission, i.e. emissions into the environment and exposure of populations to the emissions and an evaluation against recognised health protection standards.



6. Noise and Vibration

Project Specific Guidance for Wind Energy Development

The current Guidelines for Wind Energy Development (GWED) are: Wind Energy Development Guidelines (2006)
<https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

It is recognised that the nature of wind energy development has significantly changed since the publication of these Guidelines. Particularly the size of the turbines and the proximity to centres of populations and the cumulative effects with other wind energy development.

A revision of the 2006 GWED commenced in 2013 and Draft Revised Wind Energy Development Guidelines (WEDG) were issued in December 2019.
<https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/> These are yet to be adopted.

The draft Revised WEDG 2019 states '*the revised guidelines will provide greater consistency of approach in planning for onshore wind energy development, as well as providing greater certainty and clarity to the planning system, to the wind industry and to local communities.*'

The NEHS would consider the most appropriate criteria for assessing significance of the predicted noise would be consideration of the ENVIRONMENTAL NOISE GUIDELINES for the European Region, 2018 The 2018 WHO Guidance set health protection levels from environmental noise.
<https://iris.who.int/bitstream/handle/10665/279952/9789289053563-eng.pdf?sequence=1>

The NEHS is aware of the High Court decision in **Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024**, and details of the judgement. The judgement that the noise from the wind farm was a Private Nuisance is a predominately health based assessment, in that the elements that were deemed to create the nuisance were directly related to health effects on the complainants. It is the understanding of the NEHS that assessment of compliance with health protection conditions set in the consent process was not a material consideration in the judgement. The judge did state that she could consider nuisance irrespective of any compliance with consent conditions, particularly in the absence of up-to-date national Policy and Guidance in the area. The Draft 2019 (WEDG) Guidelines is still on the Department's website as of the date of this submission.

Nuisance from noise is fundamentally a subjective assessment based on 'reasonable' perception and reaction of the effects of the noise exposure. This perception and reaction depends on situational specific conditions and land



use. This was recognised in the Judgement after 51 days of evidence and consideration of the specific facts. It also the understanding of the NEHS that the Judgement did not make an order as to the level or characteristic of the noise that would abate the nuisance.

If ACP are now considering that they are under a duty to incorporate the likelihood of a private nuisance into their decision making, then they should consider the judgement in ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024***. This judgement identified, in the absence of Irish Guidance, the usefulness of UK Guidance in the investigation of wind farm noise as a statutory nuisance. This is, of course, a reactionary methodology where specific noise exposure is known and not a predictive methodology for the likelihood of a Private Nuisance.

https://docs.wind-watch.org/IRE-2024_IEHC_136.pdf

<https://assets.publishing.service.gov.uk/media/5a795184e5274a3864fd5f82/pb-13584-windfarm-noise-statutory-nuisance.pdf>

NEHS notes the most recent development in the Case below.

Nagle View Turbine Aware Group v An Bord Pleanála, and Coom Green Energy Park Limited (2024 IEHC 603) 1st November 2024. The Office of Planning Regulator key takeaways on page 20 included the below screen shot:

- In the context of Section 28 guidelines, it is in principle lawful to have regard to draft guidelines as part of the evolving scientific context or in "*illuminating what amounts to best practice*", particularly where the extant guidelines are potentially viewed as outdated.

https://publications.opr.ie/storage/publications/HKpLQPHtDmvgiveTUIpHqYeoNVmt99rqGKgEAI2J.pdf?_gl=1*1uukl22*_ga*MjA0MTE1MDM0Ny4xNzcwNzI1OTAx*_ga_J58VT3XFH2*czE3NzA3MjU5MDAkczEkZzEkdDE3NzA3MjYxMDgkajQzJGwwJGgw

The impacts of Tirawley Wind Farm (TWF) and grid connection route during construction and operation are addressed in Chapter 11 of the EIAR. Whilst section 11.2.3.4 of the EIAR does not accept the above position of the NEHS, the use of the 2006 Guidance with regards to noise exposure, and in particular the '*balance between development and protection of public health*' stated in ETSU R-97 are resulting in a significant volume of complaints from communities exposed to noise from wind turbines post development. This position that the absolute noise exposure limits set in the 2006 Guidance do not necessarily protect Public Health in specific development situations is now supported by Judgements of the Irish Courts, as reference previously in this submission.

In section 11.4.3 from the EIAR states "*The predicted noise levels are higher than the night-time noise limit of 43 dB at six receptors, at various wind speeds – H3, H4, H6, H10, H11 and H13. It has been confirmed by the applicant that*



one of these receptors is financially involved with the Proposed Development, H8, to which a 45 dB limit may be applied. Therefore, there are no exceedances at these receptors.” It is stated in the EIAR that these will be subject to a curtailment strategy in section 11.5.4. It is also noted that the EIAR considers that a financial interest in the development warrants a higher noise exposure level criteria. The noise criteria are a health protection standard that are set to protect the health of all of the population irrespective of any financial interest in a development.

Predicted Operational Noise Exposure

EPA Guidance NG4 is specifically for licensed sites that are located in areas zoned under planning legislation to facilitate industrial development. The existing noise environments are not therefore generally similar to those where windfarms are developed. In section 11.4.6.1 states that Quiet Area

“will involve determining if the following criteria are satisfied:

- *At least 3 km from urban areas with a population >1,000 people;*

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

The above does not match the information provided in Chapter 5 section 5.3.1 of the EIAR which advises that Ballycastle has a population of 220 people. Therefore it can be concluded that the proposed development is in a Quiet Area.

If consent is given for this development the mitigation measure (MM) such as a noise curtailment strategy should be made a condition of the consent for all phases i.e. construction, operation, maintenance and decommissioning phases. Particularly to prevent sleep disturbance. This recommendation is made in the interest of protecting Public Health.

It is noted in sections 11.4.1.1, Tables 11.2 and 12.13 that Rock breaking is expected at the nearest turbine T2 and the Grid Connection is expected to have pneumatic breaker and vibratory roller at other locations across the site. In Chapter 8 section 8.4.2.1.6 states that *“Blasting will be avoided whenever possible.”* The NEHS recommends to minimise noise-travel, such as the construction of berms/mounds, to absorb noise or deflect noise away from receptors. Rock blasting must follow in line with Guidance on the Safe Use of Explosives in Quarries (Safety and Health Commission for the Mining and Other Extractive Industries, 2002) and the British Standard BS 5228-1:2009+A1:2014 Code of Practice for noise and vibration control on construction and open sites – Noise.



Construction activities may result in temporary increases in noise levels, vibration, and amenity disturbance. The combined effects of construction traffic, narrow rural roads, and nearby quarry activity may increase the perceived noise environment for some receptors.

The NEHS recommends that, if permission is granted, the following measures are secured:

- a) Implementation of a construction noise management and curtailment strategy.
- b) Construction hours restricted to:
 - **Monday–Friday: 07:00–19:00**
 - **Saturday: 08:00–13:00**
 - **Sundays/Public Holidays: No noisy works permitted.**
- c) Noise and vibration monitoring at sensitive receptor locations.
- d) Restrictions on working hours near schools and community facilities where feasible.
- e) Consideration of cumulative noise impacts, including nearby quarry operations.
- f) Maintenance of safe access to residential and community receptors.
- g) Implementation of a complaints management procedure with a dedicated CLO.

These measures would assist in protecting residential amenity and community wellbeing during construction.

7. Shadow Flicker

The NEHS has considered chapter 15 of the EIAR which assesses Shadow Flicker and electromagnetic interference (EMI). In Chapter 15 section 15.3 of the EIAR states that *“the potential to result in shadow flicker at a maximum of 108 receptors surrounding the Site. The implementation of mitigation to cease operation of the turbines during periods of potential shadow flicker will ensure that no shadow flicker effects above the recommended guidance are experienced at any sensitive receptor within the Study Area. It is therefore considered that Tirawley Wind Farm will comply with the 2006 Guidelines of no more than 30 minutes per day and or 30 hours per year of shadow flicker at neighbouring sensitive receptors within the Study Area.”*

The draft (WEDG) 2019 Guidelines is still available on the Department’s website as of the date of this submission and should be implemented.



The draft 2019 Guidelines proposed a planning condition of:

The adopted DoEHLG 2006 Guidelines are currently under review. The Draft DoEHLG 2019 Guidelines recommend local planning authorities and/or An Bord Pleanála impose conditions to ensure that:

"no existing dwelling or other affected property will experience shadow flicker as a result of the wind energy development subject of the planning application and the wind energy development shall be installed and operated in accordance with the shadow flicker study submitted to accompany the planning application, including any mitigation measures required."

The Draft DoEHLG 2019 Guidelines are based on the recommendations set out in the 'Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review' (December 2013) and the 'Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach' (June 2017).

In the interest of the protection of Public Health the condition in the Draft (WEDG) 2019 Guidelines should be implemented if consent is given for the development. The technology has advanced since the publication of the 2006 Guidance and it is a reasonable health protection measure to be included in any conditioning of a wind farm development. The mitigation measures that will eliminate exposure to shadow flicker are technologically robust and established. This mitigation measure should be implemented irrespective of whether the current guidance is updated.

8. Soils and Geology (Peat) Appendix 8.1 & CEMP Appendix 2.1

The NEHS has considered chapter 8 of the EIAR. TWF site consists of semi-improved grassland, mature forestry with isolated areas of blanket peatlands and turbary. It is located in an upland setting with ground surface elevation ranging from 22m to 152m above sea level (Malin Head OD). The closest active rock quarry is Mullafarry Quarry (Limestone rock). In section, 8.3.9 landslide susceptibility is generally low to moderate, with some small high-risk areas within the site boundary.

The proposed grid connection route including underground cabling from the proposed Tawnaghmore 110kV substation. NEHS notes that the grid connection route is not expected to interact with underlying bedrock due to shallow nature cable trenching (1.335m).

Appendix 8.1 Peat Stability Hazard and Landslide Risk Assessment (PSHRA) notes historic landslide *"The closest recorded soil movement was at Shanettra, approximately 8km south west of the proposed Development, where a peat landslide in 2000 recorded a total mapped length of 1187m. The Geological Survey of Ireland (GSI) records show the closest landslide events are approximately 6.3km north west and 6.0km south west of the site."* Section 8.3.10 of EIAR summaries the PSHRA and the effects of peat stability and slope failure for TWF is negligible hazard ranking post mitigation. In section



8.4.2.3.3 titled peat stability and slope failure states “*The effect of this is significant, permanent and negative.*”

Section 8.4 details the likely significant effects and associated mitigation measures. The main concerns from a public health perspective is soil and ground contamination e.g. contaminated by tar, hydrocarbons, accumulation of spills of fuels, lubricants on plant/vehicles and oil used to cool the transformer(s) in the substation and in each turbine, and the potential risk of fires at the Battery Energy Storage System (BESS) compound.

Section 8.5 of the EIAR details Avoidance, Good Practices, Reduction, Reuse and Remediation Mitigation Measures for each phase of the development. These mitigation measures are included in the following parts of the EIAR:

- Appendix 8.1 PSHRA specifically part F - Peat Stability section 1.4 and part I Mitigation Measures and
- Appendix 2.1 CEMP
 - Management Plan 1 - Emergency Response Plan
 - Management Plan 4 - Spoil Management Plan
 - Management Plan 5 – Waste Management and Resources Plan.

NEHS recommend strict adherence to the CEMP, with emphasis on the below main elements. These should be included as a condition of consent.

- 110% bunded capacity in all fuel, storage areas, BESS, all transformers and substation areas,
- Interceptor drains/traps,
- CEMP and
- Appendix 2.1 CEMP Management Plan 1 - Emergency Response Plan

NEHS recommends if consent is given for this development the mitigation measures described above and in more detail in Chapter 8 section 8.5 on Soils and Geology and CEMP are adopted for construction and operations phases should be included as a condition of consent.

9. Hydrology & Hydrogeology (flooding) Appendix 9.1

The NEHS has considered chapter 9 of the EIAR which sets out to assess the potential impacts of the development on the water environment (surface and groundwater).

TWF is located in the Blacksod-Broadhaven Bay surface water catchment and inside the Glencullin River sub-catchment. The majority of the TWF site is drained by the Cloonalaghan River which discharges into Lackan Bay. the Grid Connection is drained by the Cloonalaghan River.



In section 10 of NTS states the following: “The primary risk to groundwater would be from oil spillage and leakages at turbine foundations or during construction plant refuelling. These significant potential effects generally arise from sediment input from runoff and other pollutants such as hydrocarbons and cement-based compounds. A self-imposed 50 m buffer from natural watercourses was used during the design of the Proposed Development, thereby avoiding sensitive hydrological features. The storage and handling of hydrocarbons/chemicals will be carried out using best practice methods which will ensure the protection of surface and groundwater quality. A site-specific flood risk assessment was undertaken for the Proposed Development.”

Appendix 9.1 Flood Risk Assessment in section 7 concluded the TWF and Grid Connection is largely located within Fluvial Flood Zone C and is at low risk of fluvial flooding.

While no direct human health impacts are anticipated, there is potential for indirect effects during construction through sediment runoff, spills, or disturbance of drainage pathways.

The NEHS recommends strict adherence to the CEMP Management Plan 3 and mitigation measures in section 9.5 of Chapter 9, with particular emphasis on:

- **Surface water protection,**
- **Spill prevention and,**
- **Management of excavated material.**

10. Food Safety and Environmental Compliance

The development itself will bring level of employment in the construction phase. Should welfare facilities in any of the temporary construction compounds become a commercial kitchen/canteen or food preparation area, then it operates as a food business. The NEHS require that registration be undertaken in accordance with Article 6(2) of Regulation (EC) No. 853/2004, and that early engagement with the appropriate registering authority be undertaken to ensure compliance with food hygiene legislation.

Where smoking shelter(s) are provided if any within temporary construction compounds, they shall comply with Section 47 of the Public Health (Tobacco) Act 2004 (as amended). NEHS recommends that early engagement with the appropriate registering authority is undertaken to ensure compliance with Tobacco legislation.



11. Construction Environmental Management Plan (CEMP)

The NEHS has considered the CEMP and is of the opinion that there will be adequate protection of Public and Environmental Health during the construction phase providing:

- The mitigation and controls are implemented in full.
- The effectiveness of environmental controls are monitored and reviewed and increased mitigation/corrective action is taken where required.
- All drinking water and water used for the preparation of food in the temporary construction compounds should meet the requirements of S.I. No. 99/2023 - European Union (Drinking Water) Regulations 2023 (as amended).
- There should be no direct emission to ground or surface water of any foul waste water. All waste water should be contained and taken off site to a licensed treatment facility.
- Site drainage should ensure the protection of surface and ground water during the construction phase.
- The dust monitoring is a monthly average standard. Compliance with standard can incorporate short periods of very high levels of dust deposition followed by low levels and still be compliant. It is therefore important that dust minimisation is continually implemented and any complaints are investigated and responded to.
- A pest/vector management control plan should be developed into a specific pest/vector management programme for protection of nearby sensitive receptors. Construction activities should ensure that drains and sewers are not damaged or left open, in order to prevent rodent access and infestation.



12. Recommendations

Should permission be granted for the proposed development, the NEHS makes the following recommendations:

- A dedicated CLO should be appointed for this development to ensure that there is on-going consultation with the Public from design to planning to construction stages for the lifetime of the development and any complaints are investigated and responded to in a timely manner.
- The condition in the Draft (WEDG) 2019 Guidelines i.e. no shadow flicker, should be implemented if consent is given for the development.
- A noise curtailment strategy from CEMP should be made condition of the consent for all phases i.e. construction, operation, maintenance and decommissioning phases.
- The applicant should not operate outside these time limits unless absolutely necessary and with prior approval from the planning authority, in particular to prevent sleep disturbance.
 - **Monday to Friday 07:00 – 19:00**
 - **Saturday 08:00 – 13:00**
 - **Sundays and Public Holidays - No noisy operations on site.**
- In relation to rock breaking recommend to minimise noise-travel, such as the construction of berms/mounds, to absorb noise or deflect noise away from receptors.
- The mitigation measures described in section 8.5 of Chapter 8 on Soils and Geology and CEMP Plans 1, 4 and 5 should be adopted for all stages i.e. construction operation and decommission phases, and be included as a condition of consent.
- The mitigation measures described in section 9.5 of Chapter 9 on Hydrology & Hydrogeology and CEMP Plan 3 should be adopted for all stages i.e. construction operation and decommission phases, and be included as a condition of consent.
- CEMP mitigation and controls are implemented in full, and be included as a condition of consent, especially a pest/vector management control plan.
- Compliance with food safety legislation where applicable (Regulation (EC) No. 853/2004) and that early engagement with the appropriate registering authority be undertaken for any temporary smoking facilities on site to ensure compliance with food hygiene legislation.
- Compliance with tobacco legislation with Section 47 of the Public Health (Tobacco) Act 2004 where applicable for any temporary smoking facilities on site.



If you have any queries regarding this submission, the initial contact is Jennifer Shorten Principal Environmental Health Officer who will refer your query to the appropriate person.

Yours Sincerely,

A handwritten signature in black ink that reads 'Jennifer Shorten'. The signature is written in a cursive style and is positioned above a horizontal line.

Jennifer Shorten

Oifigeach Sláinte Comhshaoil, Príomhaí, FSS Seirbhís Náisiúnta Sláinte
Comhshaoil
Áras Naomh Mhuire, Sean-Bhothair Chathair Na Mairt, Caisleán an Bharraigh,
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