Planning and Development Act 2000 (as amended)

Strategic Infrastructure Act 2006

Report to Elected Members as required by Section 37E(4) of the Planning and Development Act 2000 (as amended).

An Bord Pleanála Reference ABP 319448-24 – Knockanarragh Wind Farm Ltd.

Application Details:

Applicant:	Knockanarragh Wind Farm Ltd., Statkraft Ireland Ltd, Building 3400 Cork Airport Business Park, Cork, T12AE76.
Received	4th April 2024
Agent:	SLR Environmental Consulting (Ireland) Ltd, 7 Dundrum Business Park, Windy Arbour, Dublin, D14 N2Y7
An Bord Pleanála Reference Number:	ABP 319448-24
Proposed Development (Summary):	Construct 8 (No.) wind turbines with a ground-to blade tip height of 175-180 metres; a rotor blade diameter of 155-162metres; and hub height of 97.5-99 metres, and associated foundations and hardstanding areas; A thirty five year operational life from the date of full commissioning of the wind farm and subsequent decommissioning; Construction of 1 no. permanent 110 kV electrical substation west of Clonmellon, Co Meath; Construction of 33kV underground electricity cabling along the L5542 and N52 connecting the Main Wind Farm Development Site to the Proposed 110kV Substation at Clonmellon; Construction of a section of 110kV electricity cabling between the Proposed 110kV Substation and the existing overhead line at Clonmellon, inclusive of 110kV interface masts; Construction of an internal collector cable circuit within the Main Wind Farm Development Site, including directional drilling of (125m) cabling between Turbine 5 and Turbine 8; Undergrounding of approximately 610 metres of existing 10 kV overhead electrical power line in the vicinity of Turbine 6; Junction accommodation works off the L5542/Carnybrogan local road to include localised widening of the road and creation of a splayed entrance to facilitate the delivery of abnormal loads; new site entrance and slip road from the L5542/Carnybrogan;

	new site entrance to T8 from the N52 via an existing agricultural access; new site entrance from the L6821 to the Proposed 110 kV Substation; forestry felling of between 19.62ha and 20.09ha to facilitate construction. A temporary construction compound; Spoil Management; Site Drainage; Tree Felling; Operational stage site signage; and all ancillary works and apparatus. A ten-year planning permission is sought.
Site Location:	Townlands of Clonmellon, Kilrush Upper, Kilrush Lower, Newtown, Ballinlig, Carnybrogan, Cavestown and Rosmead, County Westmeath and Galboystown, Co. Meath.

1. PURPOSE OF THIS REPORT:

Having regard to the nature and scale of the proposed development and following consultation pursuant to Section 182E of the Planning & Development Act 2000 (as amended), An Bord Pleanála has determined that this proposed development constitutes Strategic Infrastructure Development within the meaning of Section 182A of the Act. In such circumstances the normal mechanism of applying to Westmeath County Council for planning permission does not apply with the proposal requiring a planning application to be made directly to An Bord Pleanála. Accordingly, Knockanarragh Wind Farm Ltd. as required, has applied directly to An Bord Pleanála for planning permission.

The purpose of this report is to set out the Planning Authority's required views on the effects of the proposed development on the environment and on the proper planning and sustainable development of the area, having regard in particular to the matters specified in section 34(2) of the Planning and Development Act, 2000 (as amended) (hereafter referenced as the PDA 2000). The matters specified in section 34(2) are:

(i) the provisions of the development plan,

(ia) any guidelines issued by the Minister under section 28,

(ii) the provisions of any special amenity area order relating to the area,

(iii) any European site or other area prescribed for the purposes of section 10(2)(c),

(iv) where relevant, the policy of the Government, the Minister or any other Minister of the Government,

(v) the matters referred to in subsection [34](4),

(va) previous developments by the applicant which have not been satisfactorily completed,

(vb) previous convictions against the applicant for non-compliance with this Act, the Building Control Act 2007 or the Fire Services Act 1981, and

(vi) any other relevant provision or requirement of this Act, and any regulations made thereunder.

(aa) When making its decision in relation to an application under this section, the planning authority shall apply, where relevant, specific planning policy requirements of guidelines issued by the Minister under section 28.

In the interests of clarification, there are no Special Amenity Area Orders (item ii above) in County Westmeath. The matters referred to in section 34(4) of the PDA 2000 are those matters which the Planning Authority takes account of and may attach conditions relevant to, during the consideration of a normal planning application.

This report will be submitted for the consideration of An Bord Pleanála as required under Section 37E(4) of the PDA 2000. The Members may, by resolution, decide to attach recommendations to this report (as per Section 37E(6) of the PDA 2000). The views expressed at the meeting of the Council where this report is considered shall also be attached to this report (also per Section 37E(6) of the PDA 2000).

It should be noted that an Bord Pleanála has absolute discretion to request revised proposals or further information in advance of a decision being made under section 37F(1) of the PDA 2000.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT:

The proposed development relates to the construction of 8 no. turbine wind farm development located within a site area of 115.81 ha and with an estimated capacity of 52.8MW to 57.6MW depending on the final turbine technology installed. The proposed development will consist of the following:

- Construction of 8 No. wind turbines with an overall ground to blade tip height of between 175m–180m inclusive. The wind turbines will have a rotor diameter ranging from 155m to 162m inclusive and a hub height ranging from 97.5m to 99m inclusive. Each turbine will have individual output of between 6.6MW to 7.2MW inclusive.
- Construction of temporary crane hardstands and permanent turbine foundations.
- Construction of permanent internal site access roads including passing bays and all associated drainage infrastructure
- Construction of 1 no. permanent 110 kV electrical substation west of Clonmellon, Co Meath to include 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, bunding and works.
- Construction of 33kV underground electricity cabling, including joint bays and ancillary works, along the L5542 and N52 connecting the Main Wind Farm Development Site to the proposed 110kV Substation at Clonmellon.
- Construction of a section of 110kV electricity cabling between the Proposed 110kV Substation and the existing overhead line at Clonmellon, inclusive of 110kV interface masts.
- Construction of an internal collector cable circuit within the Main Wind Farm Development Site, including directional drilling of (125m) cabling between Turbine 5 and Turbine 8.
- Construction of two construction compounds with associated temporary site offices, parking areas, welfare facilities and security fencing.
- The use of the construction compound in the Southern Cluster as a maintenance hub to facilitate the operational phase of development.
- Development of two borrow pits for the purpose of stone extraction.
- Undergrounding of approximately 610 metres of existing 10 kV overhead electrical power line in the vicinity of Turbine 6.
- Development of an internal site drainage network and sediment control systems.
- Improvements to an existing site entrance off the L5542/Carnybrogan local road to include localised widening of the road and creation of a splayed entrance to facilitate the delivery of

abnormal loads and turbine component deliveries. Improvements will include removal of existing vegetation to accommodate visibility splays.

- A new site entrance and slip road from the L5542/Carnybrogan local road to facilitate the delivery of abnormal loads and turbine component deliveries to northern part of the site.
- Road improvements to L5542/Carnybrogan local road to facilitate the delivery of abnormal loads and turbine component deliveries.
- A new site entrance to T8 from the N52 via an existing agricultural access within the townlands of Cavestown and Rosmead.
- A new site entrance from the L6821 to the Proposed 110 kV Substation at Clonmellon.
- Ancillary forestry felling of between 19.62ha and 20.09ha to facilitate construction of the development.
- All associated site development works including berms, landscaping, and soil excavation and the ongoing maintenance and management of the biodiversity measures in accordance with the Habitats and Species Management Plan.
- Measures for biodiversity enhancement including wader scrapes for snipe, stockproof fencing and other measures.
- The enhancement and replacement of hedgerows and broadleaf trees and the planting of new hedgerows and trees.
- A 35-year operational life for the Wind Turbines from the date of commissioning of the entire Proposed Development.

An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) have been prepared in relation to the project and accompany the planning application.

This application, for which a 10 year permission is sought, contains the following documentation:

- Completed Planning Application Form
- Copy Site Notice
- Copy Newspaper Notices (Westmeath Examiner)
- EIA Portal Confirmation Notice (ID:2024052)
- Planning Application Drawings (Accompanied Drawing Schedule)
- Environmental Impact Assessment Report (EIAR)
    - Volume I – Non-Technical Summary (NTS)
    - Volume II – Main EIAR
    - Volume III – Appendices to the Main EIAR
    - Volume IV –Photomontages
- Natura Impact Statement (NIS)
- Planning Statement

- Copy of Planning Application Notification Letters issued to Westmeath County Council and to each to each Prescribed Body.

3. SITE LOCATION:

Wind Farm

The proposed site extends to an area of 115.81ha, the wind farm is located within Co. Westmeath and the grid connection elements which include a 100kv sub-station is located within Co. Meath. The nearest settlement is Clonmellon located c.1km to the north-east of the wind farm site and Delvin settlement is located c. 2.5km to the south-west of the site. The wind farm site comprises of two main clusters of turbines which extends c. 4km in a north to southern orientation. The N52 bounds the site to the east. The proposed development falls within the following townlands Clonmellon, Kilrush Upper, Kilrush Lower, Newtown, Ballinlig, Carnybrogan, Cavestown and Rosmead in County Westmeath.

The application site comprises c.79.11 ha of private forestry /native woodland and agricultural land. The topography of the land comprise flat agricultural lands to undulating lands with a series of rolling hills with a gradual slope from west to east. The highest point is c. 800m southeast of turbine T3. Several eskers run through the site. Part of the forestry plantation is located on land that was previously used for peat extraction. There are 4 turbines located within this forested area and tree felling is required in this regard. There is a quarry adjacent to the site to the south of turbine T3. The Stoneyford River and its tributaries the Darcy Crossroads stream are located close to the western boundary of the site. Newtown Lough is located to the north-east of the site. Rosmead House a protected structure is located to the south of the site. The site also bounds the River Boyne and Blackwater cSAC (Site Code: 002299) to the north, northwest, west and southwest.

There is an overhead network of low and medium voltage electricity lines predominantly running along the public road and a high voltage line crosses the site to the north in an east-west direction close to the N52. The surrounding area mainly comprises dispersed rural dwellings together with agricultural holdings and buildings, with some commercial forestry. There is no residential dwellings located within 750m of any proposed turbine location.

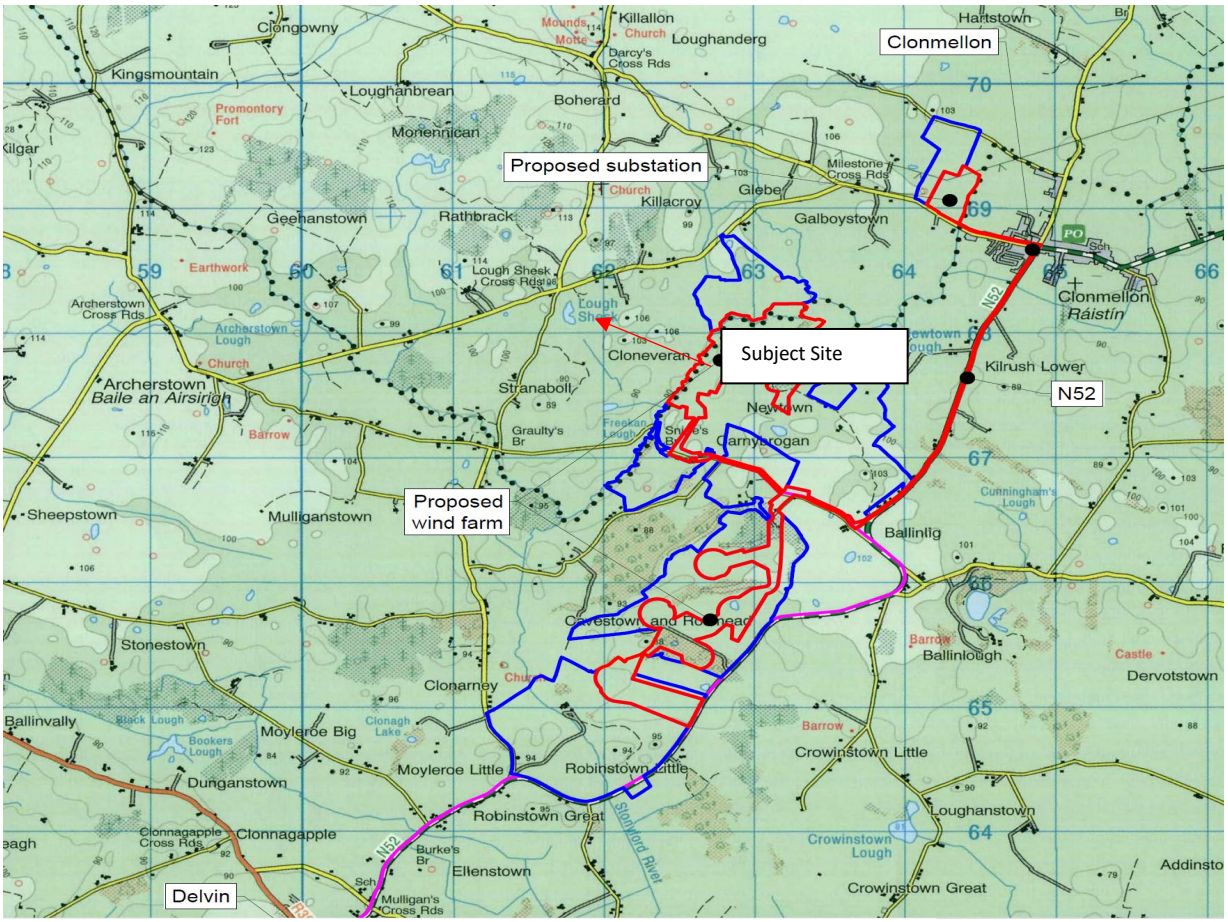
The proposed lands, the subject of this application are not within a designated Natura 2000 site or designated proposed Natural Heritage Area/Natural Heritage Area. The subject site is located in close proximity to Recorded Monuments and Places (RMP) sites, WM009-004, WM009-018 and ME023-010) and close to Protected Structures 009-048 and 009-03.

Grid Connection & Route

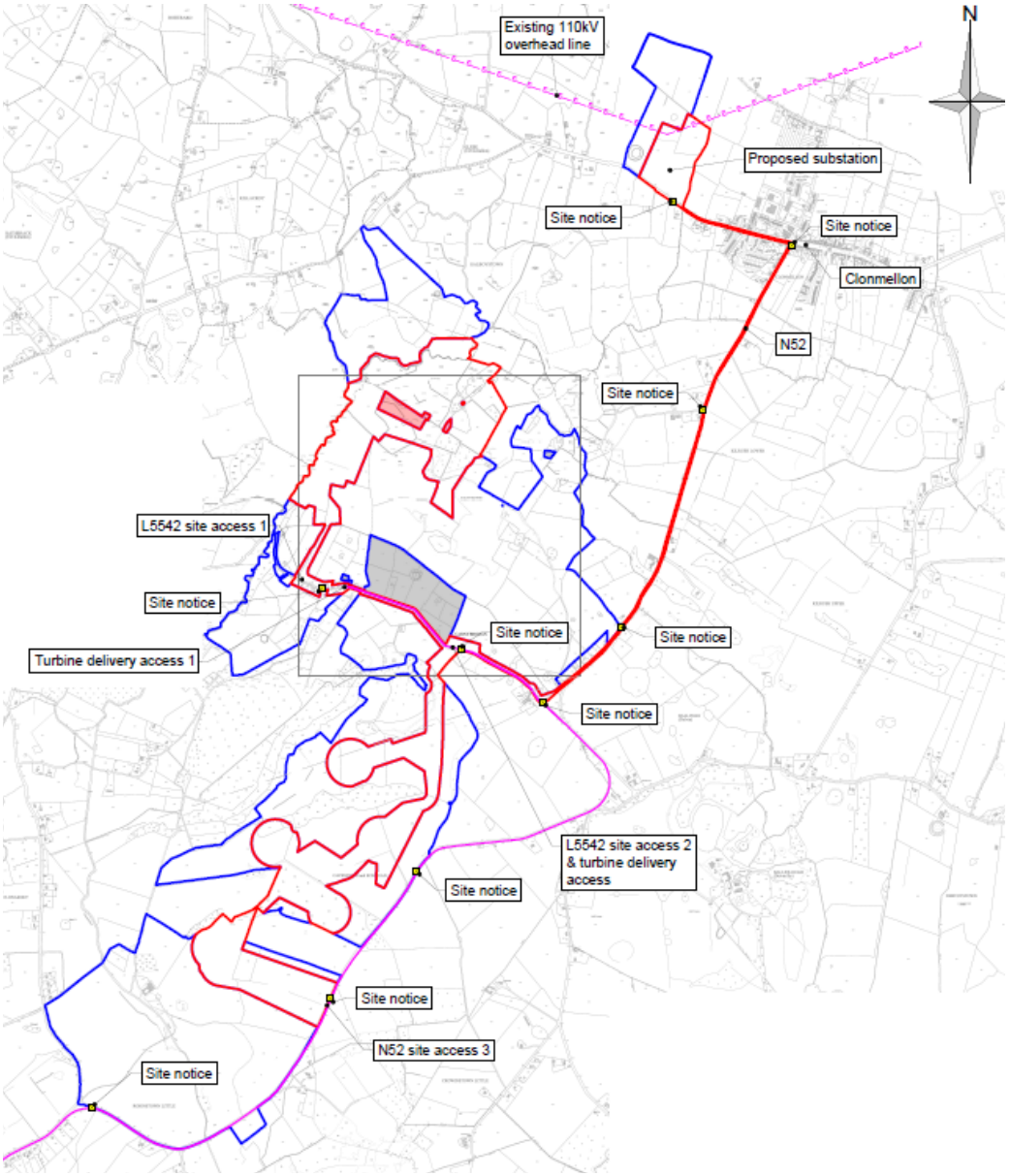
The proposed wind farm development and grid connection were both considered as part of the EIAR which accompanies this SID application. A 33kV cable is proposed to be laid under the public road (L5542 and N52) to connect the main wind farm site to the national grid via a proposed 110kV Substation at

Clonmellon. The 110 kV Substation and 33 kV cable also forms part of the subject application. The substation site is located in the townland of Galboystown in County Meath, on the western outskirts of Clonmellon (c. 200m from the settlement boundary). The underground cables will be laid in the track verges. A section of 110kV electricity cabling will be required from the substation to the existing overhead line at Clonmellon.

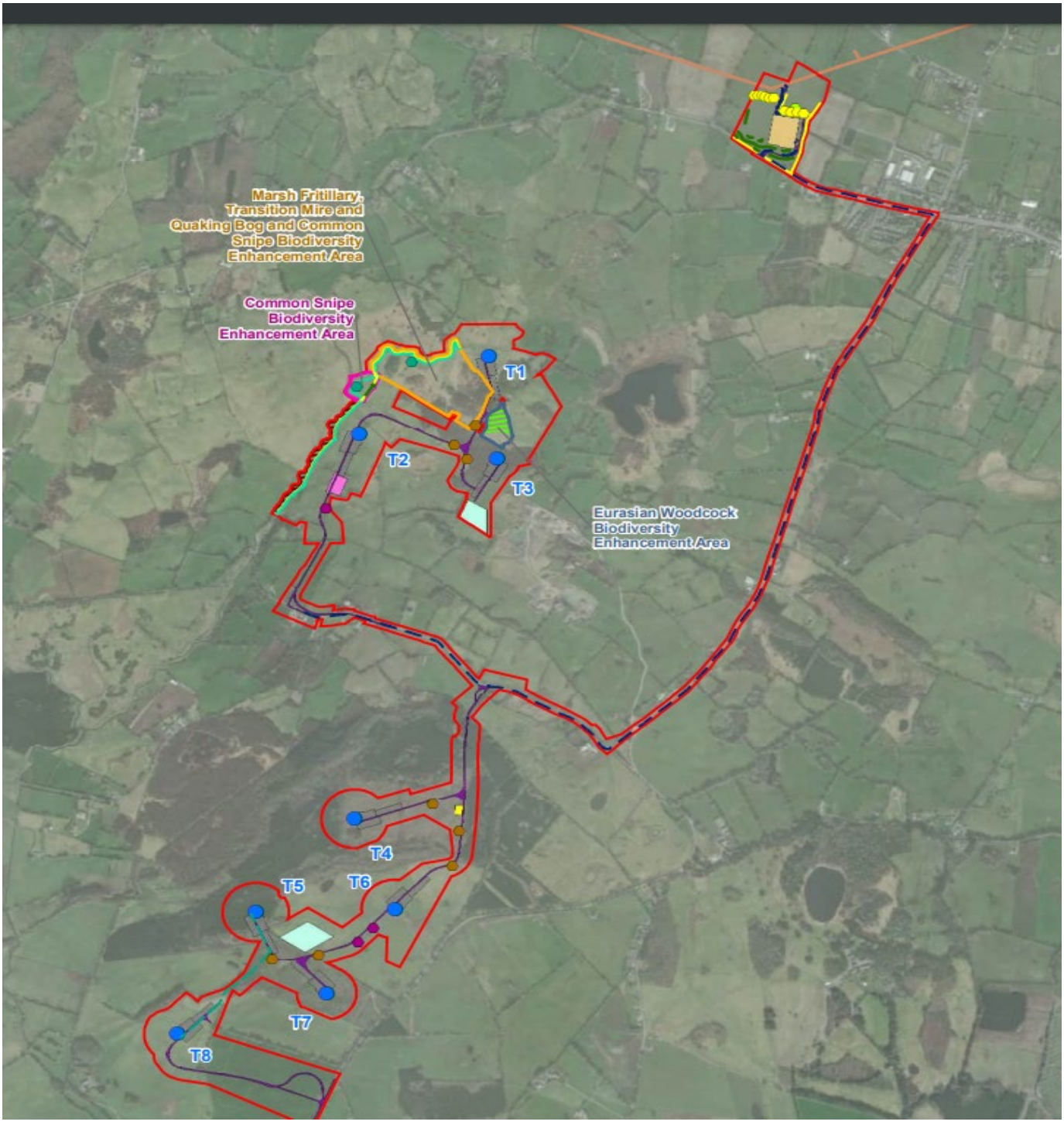
***Map 1** a– Site Location*



***Map 1**b -Site Location*



Map 2 – *Aerial photo with proposed site layout and turbine locations within site boundary*


Marsh Fritillary, Transition Mire and Quaking Bog and Common Snipe Biodiversity Enhancement Area
Common Snipe Biodiversity Enhancement Area
T1
T2
T3
Eurasian Woodcock Biodiversity Enhancement Area
T4
T5
T6
T7
T8

4. RELEVANT POLICY & LEGISLATION:

The following are a list of EU Directives and Policies and National Policies and Guidelines of relevance with a summary of the more salient provided.

European Directives and Policies

EU Renewable Energy Directive 2009/28/EC

European 2020 Strategy for Growth

2030 Climate and Energy Framework

Energy Roadmap 2050

Recast Renewable Energy Directive (RED2)

European Green Deal (2019)

National Policy

Climate Action and Low Carbon Development Act 2015

Project Ireland 2040: The National Planning Framework

Project Ireland 2040: National Development Plan 2018-2027

Climate Action Plan 2023

Climate Action and Low Carbon Development (Amendment) Art 2021

Department of Environment Heritage and Local Government Planning Guidelines for Wind Energy (June 2006)

Draft Revised Wind Energy Guidelines (Published for Consultation on 12th December 2019)

National Landscape Strategy for Ireland 2015-2025 (DAHG)

Code of Practice for Wind Energy Development in Ireland Guidelines for Community Engagement issued by the Department of Communications, Climate Action and Environment (December 2016).

National Planning Framework Project Ireland 2040 (2018) – It is a goal of the Framework to refocus planning to tackle Ireland's higher than average carbon-intensity per capita and enable a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by 2050, through harnessing our country's prodigious renewable energy potential, including, inter alia onshore and offshore wind energy.

The Government will support the roll-out of renewables and protection and enhancement of carbon pools such as forests, peatlands and permanent grasslands; and climate change being taken into account in planning-related decision-making processes. The NPF sets out a series of National Policy Objectives, the following being pertinent to the proposed development:

- *National Strategic Outcome 8* - Transition to Sustainable Energy states that new energy systems and transmission grids will be necessary for a more distributed, more renewable focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy. A target of 40% of the Country's electricity needs from renewable sources by 2020 is stated along with a strategic aim to increase renewable deployment in line with EU targets and national policy objectives up to 2030 and beyond.

- *National Policy Objective (NPO) 23* - Facilitate the development of the rural economy through supporting a sustainable and economically efficient agricultural and food sector together with forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage which are vital to rural tourism.

- *NPO 55* - Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050.

Policy anticipates that the forthcoming Renewable Electricity Policy and Development Framework will aim to identify strategic areas for the sustainable development of renewable electricity projects of scale, in a sustainable manner, compatible with environmental and cultural heritage, landscape and amenity considerations, and that the development of the Wind Energy Guidelines and the Renewable Electricity Development Plan will facilitate informed decision-making in relation to onshore renewable energy infrastructure.

Renewable Electricity Support Scheme (RESS 1) - RESS 1 is the first Renewable Electricity Support Scheme by the Government of Ireland and is a pivotal component of the Government's Climate Action Plan. RESS 1 uses a competitive auction process to determine which generators receive support. For projects that are successful in the RESS 1 Auction, this support typically applies for approximately 15 years.

Action Number 28 of the Climate Action Plan 2019 addresses the design and implementation of RESS. The action calls on the need to increase the volumes and frequencies of RESS auctions to deliver on the 70% renewable electricity target by 2030, ensuring an appropriate community/enterprise mix to achieve an efficient delivery of renewables. RESS 1 is the first step in this important component of the Climate Action Plan.

All RESS 1 Projects are required to establish a Community Benefit Fund prior to Commercial Operation of the project. The contribution will be €2/MWh of Loss-Adjusted Metered Quantity for all RESS 1 Projects.

Climate Action Plan 2023 The plan seeks to identify how Ireland will achieve its 2030 targets for carbon emissions by sector and through a series of actions. The overarching requirement as it relates to electricity requires transformational policies, measures and actions, and societal change to increase the deployment of renewable energy generation, strengthen the grid, and meet the demand for flexibility in response to the challenge. The plan seeks to reduce the State's greenhouse gas emissions by 51% by 2030. One of the plan's measures seeks to increase the proportion of renewable electricity to up to 80% by 2030, including a target of 9 GW from onshore wind, 8 GW from solar and at least 5 Gigawatts of offshore wind energy by 2030.

Wind Energy Development Guidelines for Planning Authorities 2006 - These guidelines provide advice to the Board and to planning authorities on wind energy development through the Development Plan and the development management process. They are intended to provide for consistency in the approach to wind energy development in terms of the identification of suitable locations for such development and in the determination of planning applications. It is stated that the assessment of such projects should be plan-led with clear guidance on where wind energy development should locate and what factors will be taken into account.

The matters to be considered in a planning application are set out in Chapter 4. These include potential impacts on the built and natural heritage, ground conditions and drainage, visual and landscape impacts, local environmental impacts, (including noise, shadow flicker, electromagnetic interference), and adequacy of local access road network. It is stated that best practice would suggest that an integrated planning application that include grid connection information should ideally be submitted and that developers should be encouraged to engage in public consultation with the local community.

The potential environmental impacts arising from wind energy developments are discussed in Chapter 5. Guidance is given on matters such as noise, shadow flicker, natural heritage, archaeology, architectural heritage, ground conditions, aircraft safety and windtake. Whilst a setback distance is not established, it is stated that noise is unlikely to be a significant problem where the distance to the residential property is more than 500m. In respect of noise, the recommended standard is a lower fixed limit of 45dBA or a maximum increase of 5dBA above background noise and nearby noise sensitive locations, apart from very quiet areas where the daytime level is limited to 35-40dB(A). A night time limit of 43 dB(A) is recommended. In terms of shadow flicker, the recommended standard is a maximum of 30 hours per year or 30 minutes per day for dwellings and offices within 500m. It is further stated that at distances of greater than 10 rotor diameters, the potential for shadow flicker is very low.

Chapter 6 provides guidance on siting and design of wind energy development in the landscape. This includes advice on siting, spatial extent and scale, cumulative effect, spacing of turbines, layout of turbines

and height of turbines. Advice is also given regarding landscape character types as a basis for application of the guidance on siting and design.

Draft Revised Wind Energy Development Guidelines 2019 – It should be noted that the Department of Housing Planning and Local Government published Draft Revised Wind Energy Development Guidelines in December 2019. A public consultation period was held until the 19th of February 2020.

The proposed key revisions include the following:

- New noise standards: The draft guidelines include proposed new standards aimed at reducing noise nuisance from wind energy developments for local residents and communities. The proposed new standards are in line with international standards, as incorporated in the 2018 World Health Organisation Environmental Noise Guidelines for the European Region. The permitted noise levels will take account of certain noise characteristics specific to wind energy projects i.e. tonal, amplitude modulation and low frequency noise and provide penalties for tonal noise and amplitude modulation and a threshold for low frequency noise above specified limits which, if breached, will result in turbine shut down. The implementation of a new robust noise monitoring framework is also proposed.
- Setback distance: The draft guidelines require a setback distance for visual amenity purposes of four times the tip height between a wind turbine and the nearest point of the curtilage of any residential property in the vicinity of the proposed development, subject to a minimum mandatory setback distance of 500 metres. This setback requirement is also subject to the need to comply with the proposed noise limits outlined above.
- Automatic shadow flicker control mechanisms: Automatic shadow flicker control mechanisms will be required to be in place for the operational duration of a wind energy development project. It will be a specific condition of planning permissions that should shadow flicker occur and impact existing properties, the relevant wind turbines must be shut down.
- Community consultation: Wind energy developers will be mandatorily required to engage in active public consultation with the local community at an early stage. In this regard, they will have to prepare and submit a 'Community Report' as part of their planning application outlining how they have consulted and engaged with the local community regarding the proposed development and how they will work with the local community to allow for the free flow of information between the community and the developer at all stages in the project.
- Community dividend: Wind energy developers will have to provide an opportunity for the proposed development to be of enduring economic or social benefit to the local community, whether by facilitating community investment/ ownership in the project, other types of benefits/ dividends, or a combination of the two.
- Grid connections: The draft guidelines contain updated guidance regarding the Environmental Impact Assessment-related requirements in respect of wind energy development projects and their related grid connections, arising from a High Court Judicial Review (O Grianna and others v. An Bord Pleanála).

The draft is subject of SEA, with the aim to issue the finalised Guidelines, following detailed analysis and consideration of the submissions and views received during the consultation phase.

4.4 Regional Policy

Eastern and Midlands Regional Assembly – Regional Spatial and Economic Strategy 2019 -2031

The primary purpose of the RSES is to support the implementation of Project Ireland 2040 and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the Region.

The RSES sets out vision based across 3 no. key guiding principles: healthy place-making, climate change, and economic opportunity. Underpinning these guiding principles are a series of Regional Policy Objectives (RPO's). The following RPO's are of particular relevance to the proposed development:

RPO 7.36: Planning policy at local authority level shall reflect and adhere to the principles and planning guidance set out in Department of Housing, Planning and Local Government publications relating to 'Wind Energy Development' and the DCCAE Code of Practice for Wind Energy Development in Ireland on Guidelines for Community Engagement and any other relevant guidance which may be issued in relation to sustainable energy provisions.

RPO 10.20: Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This Includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.

RPO 10.22: Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people.

4.5 Local Policy and Guidance Documents

The Westmeath County Development Plan 2021- 2027 (CDP) is the overarching plan with respect to land use in the County and outlines the overall strategy for the proper planning and sustainable development of County Westmeath. The relevant Sections, Policies and Objectives of the CDP, which have significance to the proposed development are outlined below.

Chapter 5 Economic Development & Employment Strategy: Transition to a Low Carbon Economy/Green Economy where a shift towards the use of renewable energy is identified as a key component and supported by policy.

CPO 5.59: Support Renewable energy initiatives that supports a low carbon transition.

Chapter 9 Rural Westmeath: Farm Diversification which notes the potential challenges within the rural economy, and acknowledges that there is a need to promote farm diversification and new employment opportunities to ensure the viability and sustain existing rural communities. The Council willingness to support diversification of the rural economy, including renewable energy is highlighted in supporting policy:

CPO 9.34: Support the rural economy and initiatives in relation to diversification, agri business, rural tourism and renewable energy so as to sustain employment opportunities in rural areas.

Chapter 10 Transport Infrastructure and Energy: Section 10.22 Renewable Energy Sources outlines that a favourable approach will be taken towards applications for renewable energy developments provided they are environmentally sustainable and are in accordance with general planning criteria. The most pertinent policies refer as follows:

CPO 10.139: Support local, regional, national and international initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which make use of the natural resources in an environmentally acceptable manner and having particular regard to the requirements of the Habitats Directive.

CPO 10.140: Facilitate measures which seek to reduce emissions of greenhouse gases and support the implementation of actions identified in the Westmeath County Council Climate Change Adaptation Strategy 2019-2024 and any future amendments.

Section 10.23.2: Industrial Scale Wind Farms. The Council will look favourably on the development of industrial scale wind farms and the harnessing of wind energy in a manner that is consistent with proper planning and sustainable development of the County.

CPO 10.142: Have regard to the principles and planning guidance set out in Department of Housing, Planning and Local Government publications relating to 'Wind Energy Development' and the DCCAE Code of Practice for Wind Energy Development in Ireland and any other relevant guidance which may be issued in relation to sustainable energy provisions.

CPO 10.144: Ensure the security of energy supply by supporting the potential of the wind energy resources of the County in a manner that is consistent with proper planning and sustainable development of the area.

CPO 10.146: To strictly direct large-scale energy production projects, in the form of wind farms, onto cutover cutaway peatlands in the County, subject to environmental, landscape, habitats and wildlife protection requirements being addressed.

CPO 10.147: Ensure that proposals for energy development demonstrate that human health has been considered, including those relating to the topics of:

- Noise (including consistency with the World Health Organisation's 2018 Environmental Noise Guidelines for the European Region);
- Shadow Flicker (for wind turbine developments, including detailed Shadow Flicker Study);
- Ground Conditions/Geology (including landslide and slope stability risk assessment);
- Air Quality; and Water Quality;
- Assessment of impacts on collision risk species (bird and bats).

CPO 10.148: With regard to wind energy developments, to ensure that the potential for visual disturbance should be mitigated by applying an appropriate setback distance, which, where relevant, complies with available Ministerial Guidelines.

Chapter 11 Climate Action: Chapter 11 address the transition to a low carbon and climate resilient County, with an emphasis on reduction in energy demand and greenhouse gas emissions, through a combination of effective mitigation and adaptation responses to climate change. Relevant policy is as follows:

CPO 11.1: Support the implementation and achievement of European, National, Regional and Local objectives for climate adaptation and mitigation as detailed in the following documents, taking into account other provisions of the Plan (including those relating to land use planning, energy, sustainable mobility, flood risk management and drainage) and having regard to the Climate mitigation and adaptation measures which have been outlined through the policy objectives in this Development Plan:

- National Mitigation Plan (2017 and any subsequent versions);
- National Climate Change Adaptation Framework (2018 and any subsequent versions);
- Climate Action Plan (2019 and any subsequent versions);
- Any Regional Decarbonisation Plan prepared on foot of commitments included in the emerging Regional Spatial and Economic Strategy for the Eastern and Midland Region;
- Relevant provisions of any Sectoral Adaptation Plans prepared to comply the requirements of the Climate Action and Low Carbon Development Act 2015, including those seeking to contribute towards the National Transition Objective, to pursue, and achieve, the transition to a low carbon, climate resilient and environmentally sustainable economy by the end of the year 2050; and
- Westmeath County Council Climate Change Adaptation Strategy 2019-2024

Chapter 12 Natural Heritage and Green Infrastructure policy: In Section 12.17 peatlands are acknowledged as one of our oldest surviving ecosystems and associated key value for biodiversity, regulation of climate as a valuable natural carbon sink, water filtration and supply.

Relevant council policy objective in this regard is as follows:

CPO 12.65: Require the preparation of Hydrological Reports for significant developments within and in close proximity to peatlands, and to take account of same in the assessment of impacts on the integrity of peatland ecosystems.

5. EIA SCREENING:

The proposed development falls within the definition of a project under the EIA Directive as amended by Directive 2014/52 and falls within the scope of Class 3 under Part 2 Schedule 5 of the Planning and Development Regulations, (as amended), Development for the Purposes of Part 10:

Energy Industry (i) Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts.

EIA is required, and the applicant has submitted an EIAR.

6. RELEVANT PLANNING HISTORY:

There is no planning history pertaining to the application site.

7. ENFORCEMENT INFORMATION RELATING TO THE SUBJECT SITE.

There is no enforcement history pertaining to the application site.

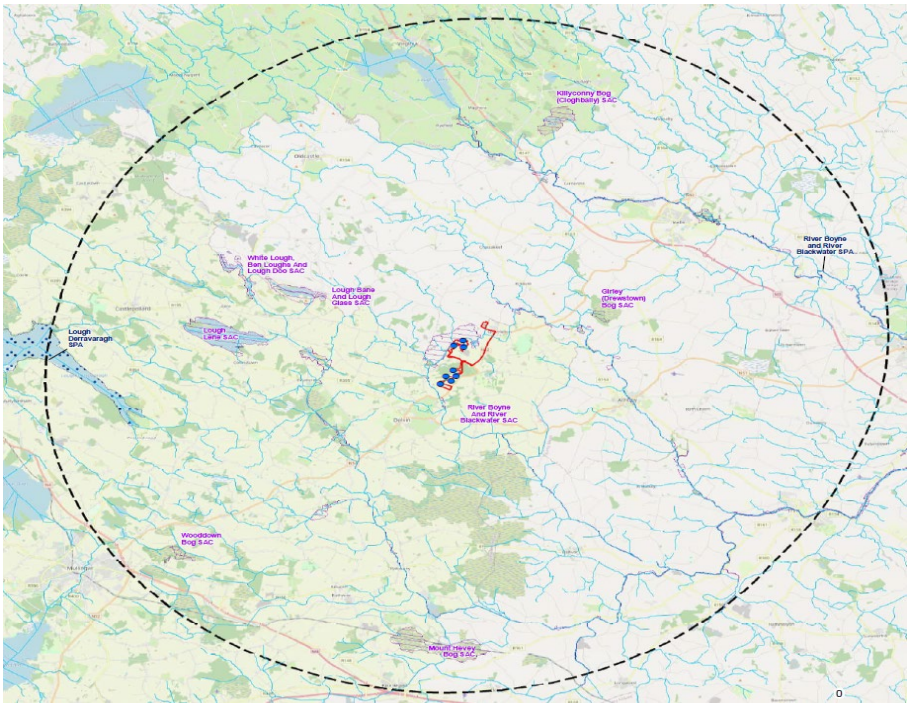
8. DESIGNATION SITES:

8.1 EUROPEAN – Special Protected Areas (SPAs) and Special Areas of Conservation (SACs)

The proposed site is located within 20 km of 10 no. Natura 2000 sites. The closest is the River Boyne and River Blackwater cSAC in which the proposed site encroaches within the River Boyne and River Blackwater cSAC designated area covering an area of c.1.93ha. The report notes that no construction, operational or decommissioning works of any type will occur within the River Boyne and Blackwater cSAC, including this area of overlap.

The nearest Natura sites are:

- River Boyne and River Blackwater SAC c.1km to the west
- Girley Bog SAC C. 7km to the east/north-east
- Lough Lane SAC C. 10km to the west
- White Lough, Ben Loughs and Lough Doo c. 1.1km to the west



An Appropriate Assessment (AA) Screening Report carried out by SLR Consulting Ltd on behalf of the applicant identified and considered all SACs and SPAs within the potential likely zone of impact (20km) of the site and the potential to result in likely significant effects and the pathways by which those effects may occur on any Natura 2000 site. It also identified those qualifying interests/special conservation interests that have the potential to be affected by the Proposed Development. The AA Screening report identified the potential for the Proposed Development to result in significant effects on the following European Sites:

- River Boyne and River Blackwater cSAC 002299
- River Boyne and River Blackwater SPA 004232
- Lough Derravaragh SPA 004043

Natura Impact Statement (NIS) was subsequently carried out to inform and assist the competent authority, in carrying out its Appropriate Assessment, as to whether or not the Proposed Development will adversely affect the integrity of European Sites, either alone or in combination with other plans and projects, taking account of their conservation objectives. This NIS provides an assessment of potential direct or indirect adverse effects on European Sites whether considered individually or in combination with other plans and projects. Where the potential for any adverse effect on any European Site has been identified, the appointed consultants have applied design and mitigation measures with the purpose of ensuring that the construction and operation phases of the Proposed Development do not adversely affect the integrity of European sites. The report concludes that the proposed development, individually or in combination

with other plans or projects, will not adversely affect the integrity of any European Site. In this case, An Bord Pleanála is the competent authority for the purposes of Appropriate Assessment (AA).

8.2 NATIONAL DESIGNATIONS - Natural Heritage Areas (NHAs)

There are five NHAs and 10 pNHAs within 20 km of the application site. There are also an additional eight pNHAs located beyond 20 km from the site which have a remote downstream hydrological connection. Documentation submitted refers that none of the five NHAs have any connectivity to the application site and of the 18 pNHAs, only Lough Glore pNHA, Lough Ramor pNHA and Royal Canal pNHA have source-receptor links.

Lough Glore pNHA has a potential ecological connection via wintering populations of coot, common snipe, northern lapwing, Eurasian curlew, Eurasian teal, pochard, tufted duck and common kestrel. Lough Ramor pNHA has a similar connection but for wintering populations of great cormorant. Royal Canal pNHA has ecological connectivity via highly mobile otter, which could travel along upstream hydrological connections. A potential impact of accidental water pollution on mobile otter from Royal Canal pNHA, if unmitigated, has been identified. Section 5 of the EIAR concludes that the proposed Development will not result in a residual loss of any habitat of high ecological significance and will not have any significant impacts on the ecology and biodiversity of the wider area, subject to the development being constructed, operated and decommissioned in accordance with the design, best practice and mitigation described within this application.

9. PUBLIC SERVICES:

Water Supply

There is no reference to potable water supply or water supply for sanitary purposes in the documentation submitted.

Sanitary Facilities:

The Applicant has noted that Wastewater will not be treated or disposed of on-site. During the construction phase of the development, it is proposed to install Port-a-loos with an integrated waste holding tank located at the temporary construction compounds which will be removed from the site on completion of the construction works. The holding tank will be periodically emptied by a licenced contractor and disposed of in wastewater treatment plants.

The staff toilets associated with the control building during the operational phase of the development will be connected to an on-site sealed storage tank with all wastewaters being tankered off site by permitted waste collector to wastewater treatment plants

Surface Water:

The applicant proposes to employ two drainage methods to control drainage water within the wind farm site during construction, thereby protecting downstream surface water quality and aquatic habitats. The first method proposed involves *'keeping clean water clean'* by avoiding disturbance to natural drainage features, minimising any works in or around artificial drainage features, and diverting clean surface water flow around excavations and construction areas.

The second method involves collecting any drainage waters from work areas within the site that might carry silt, to allow settlement and cleaning prior to its release.

There are two existing water crossings on site. One existing crossing is over an arterial drainage channel, and one over a field drain. These crossings are between Turbines 1 and 3 and the applicant notes these crossings will be upgraded. There is a requirement for 2 no. new proposed culverted crossing over a field ditch approaching Turbine 2. The two proposed new culverts over the field drains will be culverted with a 900mm pipe. The upgraded crossing structure will retain the existing hydraulic profile to mitigate any impact on the local drainage and flood risk. Clean and dirty (silty) water encountered onsite during the construction works will be separated, and dirty water will pass through a number of settlement lagoons and silt/sediment traps to remove silt before re-entering the water environment through percolation to ground or discharge to the surrounding drainage system.

The documents submitted note that during the construction phase, all surface water runoff will be treated to a high quality prior to being released. Interceptor drains will be installed either side of the access road alignment to divert any surface water away from the construction area. All new roadways will be constructed with a camber to aid drainage and surface water runoff. Other features such as Swales, Check Dams, level spreaders, piped slope drains, vegetation filters, settlement ponds, silt busters and silt bags will be incorporated into the drainage design.

Temporary interception bunds and drainage ditches would be constructed upslope of the borrow pit(s) to prevent surface water runoff from entering the excavation. Swales would also be implemented to convey and attenuate excess surface water flow away from borrow pit(s). These methods would be kept to a minimal depth and gradient, with check dams, silt traps and buffer strips also utilised where possible to minimise erosion and sedimentation at peak flows. Infiltration trenches would also be placed downslope of the borrow pit(s) and overburden and rock stockpiles and would be designed to treat run-off before discharging back into the drainage network. Silt fences would be used to intercept sediment-laden surface run-off in addition to infiltration trenches.

10. FLOOD RISK ASSESSMENT:

A detailed Flood risk assessment is addressed in Volume 3 Appendix 7-3 of the EIAR.

Fluvial Flooding:

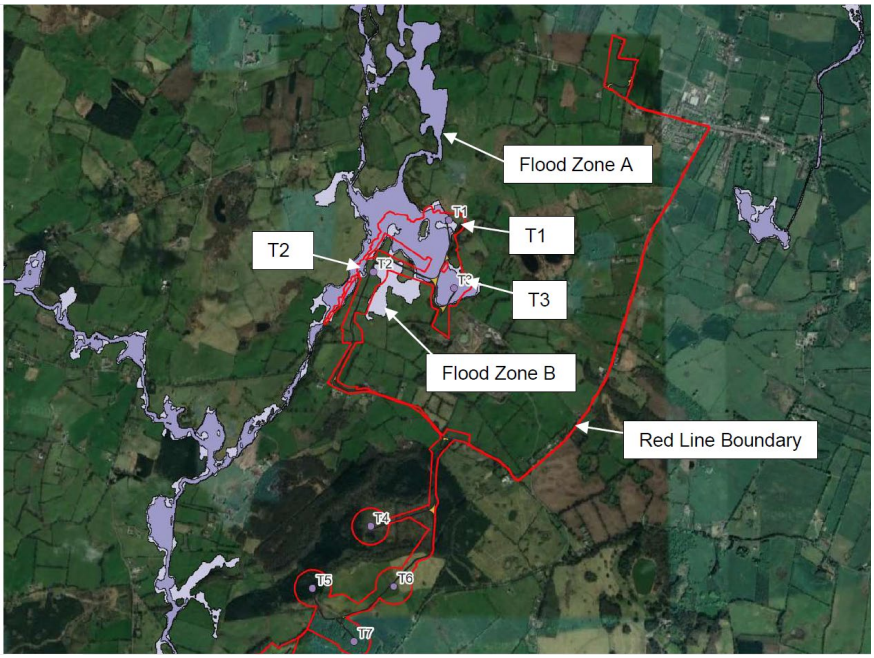


Fig 5 – Flood Maps

According to the OPW National Indicative Fluvial Mapping (NIFM) data, part of the site in the Northern Cluster is located within Flood Zone A (probability of flooding greater than 1%) and Flood Zone B (probability of flooding between 1% and 0.1%), as shown below in Figure 5. The Southern Cluster of the Site is not at risk of flooding according to the data.

The applicant has provided a hydraulic model to assess the flood risk. The results of the hydraulic modelling show that only the proposed turbine T1 and access road leading to it is within Flood Zone A. The proposed turbines T2, T3, T4, T5, T6, T7 and T8 are within Flood Zone C (probability of flooding less than 0.1%). The Proposed Substation is also situated within Flood Zone C, which is the area with the lowest risk of flooding (probability of flooding less than 0.1%). The applicant notes that according to the flood guidelines, a substation can be located in Flood Zone C.

The FRA notes that Flood depth is 0.14 m at the location of proposed turbine T1. The flood level at the location of T1 is 88.24m OD. The maximum flood depth along the access road leading to turbine T1 is 0.18 m and the report concludes that the turbine T1 can be accessed even during the flood event.

Pluvial Flooding

PFRA pluvial maps show small, isolated patches throughout the Proposed Development site. During the site walkover, the applicant noted these are ponds across the development area. The report notes that it is considered that the Proposed Development is at low risk of pluvial flooding.

Groundwater Flooding

The report notes there is no evidence from Geological Survey Ireland mapping to suggest that groundwater is a potential source of flood risk to the Proposed Development. The SSFRA concluded that the Proposed Development is at the low risk of groundwater flooding.

Historical Flooding

According to the OPW database, there are no recorded historical or recurring flood incidents within the Site. The closest flood incident is approximately 0.8km northwest of the Site at the Cross Keys Stream.

11. WATER FRAMEWORK DIRECTIVE (WFD):

The EIAR which accompanies this application includes a Water Framework Directive (WFD) assessment identifies these watercourses to be predominantly Poor-Moderate quality and at risk. There are a number of water quality stations monitored by the EPA at locations adjacent to and downstream of the Proposed Development and the cable route. The Newtown Lough Fen is located to the east of the Northern Cluster and is upstream of the River Stonyford.

The dark limestone and shale bedrock of the Lucan Formation underlying the Proposed Development is classified as a Locally Important Aquifer (Ll) - Bedrock which is Moderately Productive only in Local Zones. Groundwater flow is considered to be entirely through interconnected networks of fractures, with flow from high elevations to low elevations. No karst features have been identified within a 5km radius of the Proposed Development. Groundwater vulnerability underlying the Proposed Development is predominantly classified as 'High', with lesser areas classified as 'Moderate'.

The Study Area is underlain by the Athboy Groundwater Body. A groundwater body is also shown associated with the Newtown Lough Fen groundwater-dependent terrestrial ecosystem (GWDTE). The GWDTE-Newtown Lough Fen (SAC002299) groundwater body is shown to the southeast of the lough. The WFD assessment found these groundwater bodies to have Good water quality status and are not at risk.

There are no public water schemes in the vicinity of the Proposed Development area and that there are no groundwater supply wells have been identified within the 2km Study Area. The assessment indicates that there is no direct discharge from the proposed development site to downstream receiving waters and that mitigation for the protection of surface water during its operational phase will ensure the qualitative status of the receiving waters will not be altered or negatively impact on WFD Objectives.

12. ENVIRONMENT IMPACT ASSESSMENT REPORT (EIAR) (Comments)

The following section gives the Planning Authority's views in relation to the adequacy of the EIAR submitted as part of this planning application. Where possible it has been attempted to keep the planning assessment separate from those comments specifically relating to environmental impact, however it should be noted that there is somewhat of a crossover.

In this case, An Bord Pleanála is the competent authority for the purposes of carrying out an Environmental Impact Assessment (EIA). The EIAR submitted by the applicant informs this EIA, as does information available to the Board and information given by the Local Authority.

The Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018) specify that (as per EU Directive 2014/52/EU) there is a requirement for the EIAR to be prepared by component experts. For the most part, the EIAR which accompanies this application is set out in a clear format and consists of a wide-ranging, comprehensive assessment of the full range of issues and factors that could reasonably be anticipated for a wind farm development of this scale. The Non-Technical Summary (NTS) is considered adequate.

The section below provides a brief summary of the environmental impacts of the proposal as outlined in the chapters contained in the EIAR.

Chapter 1 – Introduction

The introduction is clearly set out and refers to the legislative context of the Environment Impact Assessment with regard to Strategic Infrastructure Development under Section 37A of the Planning and Development Acts 2000, as amended.

The main EIAR text follows a 'grouped format' structure whereby environmental factors are assessed and presented as separate chapters. Chapters are organised in a consistent approach which commences by considering the existing or baseline environment, with a subsequent assessment of the likely significant impacts of the proposed development followed by identification of measures to mitigate and monitor.

The chapter also summarises EIA scoping undertaken, and the cumulative impact assessment process undertaken and the interaction undertaken with the various stakeholders during the consultation process. The AA Screening Report considered the preparation and submission of a Natura Impact Statement (NIS) necessary to inform an Appropriate Assessment (Stage 2).

Chapter 1 of the EIAR states that each chapter has been completed by a component expert(s) and a 'Statement of Authority' has been provided in each chapter. The level of expertise of the component experts appears reasonable however this is a matter for the Board to determine.

This chapter concluded that no general difficulties or limitations, including technical deficiencies or lack of knowledge, were encountered in compiling the information required to be provided in this EIAR. Where specific difficulties or limitations were encountered in relation to specific environmental factors, they are reported in the individual chapters of this EIAR, as appropriate.

Chapter 2 – Description of Proposed Development

In Chapter 2 of the EIAR, a detailed description of the proposed development is provided along with development layout configuration. Particulars are provided in respect of development components including turbine types and capacity, assembly mechanism, grid connection and cabling, access and transportation including traffic management, turbine and construction material haul routes, site drainage, construction methodologies, onsite electricity Substation and Control Building, construction compound, spoil management plan, tree felling and replanting, environment management of construction works which feeds into the overall construction environmental management plan, operational details and decommissioning.

The proposed wind turbines are indicated as having a height of between 175 - 180 m from top of foundation (at ground level) to blade tip height. The rotor diameter of the proposed turbines will be within the range of 155 - 162m (inclusive) and hub height will be within the range of 97.5m - 99m (inclusive). Documentation refers that the exact make and model of the turbine will be dictated by competitive tender process but will remain within the range referenced in the development description. The minimum parameters are based on the Siemens Gamesa 155 and the maximum parameters are based on the Vestas 162. The EIA assesses all variations within the range of the proposed dimensions. The colour of the proposed turbines and blades are proposed to be white, off-white or light grey.

It is noted that each assessment contained within individual chapters of this EIAR have been undertaken on the basis of the range of dimensions/models provided. It is highlighted, that turbine technology advances very quickly with component dimensions constantly changing to maximise efficiency, while the process for securing planning permission and all other subsequent consents can take a significant period of time and accordingly the proposed turbine model may no longer be available in the market. Turbine design parameters have a bearing on the assessment of shadow flicker, noise, visual impact, traffic and transport and ecology (specifically birds). The EIAR assesses the likely significant environmental effects of the proposed turbine and its principal dimensions, it also fully incorporates an assessment of any immaterial deviations thereof.

Measures that have been built into the design of the development to avoid or reduce effects, referred to as ‘embedded mitigation’, are described in this chapter and in the Construction and Environmental Management Report (CEMP) contained in Appendix 2-2 of this EIAR. Mitigation measures specifically arising as a result of the environmental impact assessment process are set out in each individual topic chapter.

Chapter 3 – Alternatives

This chapter of the EIAR sets out the energy and climate change related policy and targets along with national, regional and local planning policies relevant to the proposed development. The chapter includes a description of the reasonable alternatives examined by the applicant which are relevant to the project and its specific characteristics and an indication of the main reasons for the option chosen, taking into account the environmental effects.

Do Nothing' Alternative: Clear and informed details on renewable energy and climate change policy and targets, the strategic planning context for the proposed development along with the relevance of local development plan policy is set out. The 'Do-Nothing' scenario has been assessed i.e. an outline of what is likely to happen to the environment should the project not be implemented. In this regard, it is envisaged that the local environment would continue as low intensity agriculture and forestry. It is submitted that in the 'Do-Nothing' scenario, importation of fossil fuels to maintain growing energy supply will continue and Ireland's energy security will remain vulnerable. A "Do nothing" scenario would contribute to strain on existing energy production and may impact on economic growth if energy demand cannot be met.

The EIAR considers this scenario as would result in a failure to capitalise upon and exploit the significant renewable wind energy resource available within Counties Westmeath and Meath, resulting in a lost opportunity to contribute positively in the transition to a low carbon environment. Accordingly, the 'Do Nothing' alternative was not considered a viable option.

Alternative Locations: The EIAR informs that strategic site selection is based on criteria which seeks to avoid intrinsic environmental sensitivity as the primary mitigation option for onshore wind energy projects. The procedure presented is based on a screening process which applies key analysis criteria. The preferred site is considered void of any environmental designations and is accessible in terms of connection to the national grid and situated in an area of relatively low population density with appropriate annual wind speeds.

The process used to identify alternative locations for the development references Section 10.23 of the Westmeath County Development Plan 2021-202. This chapter of the EIAR refers that the WCDP '*is generally supportive as long as such proposals would not have an adverse effect on residential or tourism amenities, special landscape character, views or prospects, Natura 2000 sites, protected structures, aircraft flight paths or by reason of noise or visual impact. This chapter also references Policy CPO 10.145 whereby the proposed development can be categorised as an industrial scale / large-scale energy production project given proposed turbine height as being over 100m, number of turbines being greater than five and output being greater than 5MW*.' This section of the EIAR summarises that the entire county is deemed to be of 'Low Capacity' or 'No Capacity' for the delivery of wind energy developments. Similarly, the Meath County Development Plan does not identify specific locations for wind development. Therefore, given that no strategic areas for the provision of wind energy developments have been formally identified, a further assessment of possible reasonable alternative locations was undertaken'.

However, in terms of appropriate location for Wind farm developments CDP policy CPO 10.146 is of particular relevance and refers as follows:

To strictly direct large-scale energy production projects, in the form of wind farms, onto cutover cutaway peatlands in the County, subject to environmental, landscape, habitats and wildlife protection requirements being addressed.

It is considered that the alternative site selection process failed to appreciate the significance of County Development Plan Policy CPO 10.146.

Alternative Renewable Energy Technologies: The EIAR informs that the only other technology reasonably available to meet the objectives of the project and national targets would be the development of a commercial solar energy project. It is indicated that due to its nature, solar energy production requires a significantly larger direct land-take and would result in a higher potential environmental effect on traffic and transport and biodiversity and birds (habitat loss) at the site and impacts to existing agricultural practices. The proposal for a wind energy development at this site was considered to be the most efficient method of electricity production with the lesser potential for significant environmental effects.

Alternative Designs: It is outlined within the submitted EIAR that the design of the proposed development is the result of several iterations which have focused on variations in optimal turbine number and tip height which would deliver the desired 50MW power output for the project. The final selection of eight turbines within two clusters was chosen as the best available option for refinement through the EIA process. The most significant design changes that were made during the early stages of the EIA process are as follows:

1. A revised proposed substation location, relocated from the northern cluster of turbines to a location to the east of the village of Clonmellon

2. A revised access arrangement and construction compound location for the northern cluster, with access and grid route now provided via the L5542

3. A revised grid route, now combined with road access arrangements, which would be accommodated along the N52 and L5542

4. Further micro siting of T1 and its associated access.

Alternative Grid Connection Cabling Route and Haul Route Options: The EIAR refers that proximity of the proposed wind turbines to a suitable potential substation connection point for onward connection to the national grid was a key driver in the strategic site selection process. Factors considered included length of the cable route, environmental and heritage constraints, population centres and suitability of terrain.

Underground electrical cables will transmit the electricity generated by each proposed wind turbine to the proposed substation via an underground 33kV cable of 3.85km length and onwards to the national grid connection point and undergrounded cable connections will have no visual impact and will be located

within the public roadway, therefore reducing potential impacts on underground archaeology, drainage, habitat loss and surface water.

The initial selection for cable routes followed consideration of criteria as follows:

• Proximity of a potential location for a suitable off-site substation to connect to the national grid connection point

• Cable routes were shortened and optimised where possible to minimise impacts

• Minimisation of watercourse crossing points

• Avoidance of environmental and heritage features

• Minimisation of traffic and transportation obstruction

A network of access tracks that provide access from the public road network to the site and to each turbine for construction, operational maintenance and decommissioning purposes has also been selected based on similar criteria and internal connections between these access points has been identified to reduce the need for use of the local public roads for development traffic. Feedback received from TII in relation to avoiding the area of N52 Cavestown to Kilrush minor alignment improvement works has been incorporated and design of the cable route has been amended accordingly. River / waterbody crossings have also been further avoided following feedback received from Inland Fisheries Ireland.

Alternative Substation Location: The substation was initially proposed within the main windfarm site and it was intended to access the existing 110 kV overhead line at Clonmellon via an underground cable along the public road, this required a typical 110kV cable trench of 4,600 metres. The EIAR refers that on further assessment, this location was deemed to have ecological value as part of Newtown Lough. Scoping consultation feedback obtained from Meath County Council further highlighted the elevated position of the proposed substation site in the landscape and a ringfort – rath feature adjoining this site. An off-site substation location has since been identified to the west of Clonmellon with easy proximity to existing transmission infrastructure.

Chapter 4 – Population and Human Health

The key issues examined in this chapter of the EIAR include population, human health, employment and economic activity, social consideration, residential amenity, recreation amenity. land-uses, health and safety. In addition to this chapter, references to health in association with soils, water, air quality, noise, shadow flicker and landscape are discussed in subsequent chapters of the EIAR.

From a socio-economic perspective the likely positive significant impacts are indicated to be primarily seen during the construction phase whereby a wind farm with a capacity between 52.8MW and 57.6MW would create approximately 63 jobs and 184 jobs respectively during its construction phase.

The EIAR considers amenity levels of the local population, the likely impacts are due to noise, shadow flicker, visual amenity and potential impact from dust and traffic. The EIAR considers that with the implementation of mitigation measures that any residual effect from the proposed development will have an imperceptible effect on residential amenity.

Chapter 4 briefly describes the proposed Community Benefit Schemes in accordance with the Wind Energy Ireland (WEI) best practice. It is indicated that the scheme will be available to the community at a rate of €2 euro per megawatt hour (MWh) produced, should the Renewable Energy Support Scheme (RESS) be awarded. An investment of approximately €300,000 for the overall wind farm development per year for up to 15 years, is committed. The community Benefit Fund will provide a minimum payment of 1,000 to all dwellings within 1km radius of the project and as a minimum 40% of the funds will be paid to not-for-profit community enterprises.

The overall conclusion of this chapter is that any adverse effects of the proposed development on population and human health are unlikely to be significant. No specific mitigation measures, other than full adherence to all health and safety and public health guidance, have been identified as being required. It is considered that the timespan of the Community Benefit Scheme should match that of the operating life of the wind farm i.e. 35 years.

Chapter 5 - Biodiversity

This chapter in the EIAR assesses the likely significant effects (both alone and cumulatively with other projects) that the development may have on Biodiversity, Birds, Flora and Fauna, and sets out the mitigation measures proposed to avoid, reduce or offset any potential significant effects that are identified. Multidisciplinary Desk studies and field surveys were carried out by the applicant. Habitat surveys of the application site covered the recognised optimum period for vegetation surveys/habitat mapping. During the multidisciplinary surveys, a search for Invasive Alien Species (IAS) was also conducted.

There are eight SACs and two SPAs within 20 km of the Proposed Development. Of these, the River Boyne and River Blackwater cSAC/SPA and Lough Derravaragh SPA appear to be the only ones with any connection to the site, with downstream hydrological connections to the River Boyne and River Blackwater cSAC/SPA, while the applicant notes that there is a potential weak ecological connection to Lough Derravaragh SPA.

The key habitats considered in the applicant's assessment include alkaline fens while the key species considered in the assessment include lamprey species, salmon, otter, kingfisher, whooper swan, pochard, tufted duck and Eurasian coot. No rare or protected plants were recorded during field surveys while invasive and non-native plants Japanese knotweed, cherry laurel and snowberry were recorded by field surveys, but only the cherry laurel and snowberry were recorded within the development footprint of site.

The report notes that Bird species identified within and around the application site as important ecological features and subject to detailed assessment including barn owl, black-headed gull, common kestrel, common snipe, Eurasian curlew, Eurasian teal, Eurasian woodcock, European golden plover, great cormorant, hen harrier, mallard, merlin, mute swan, northern lapwing, peregrine falcon and whooper swan. Five species of mammals were recorded within or nearby the site which include badger, pine marten, red squirrel, red fox and feral goats. There were four structures identified to have moderate potential to be used by roosting bats, with the ruins of Rosmead House the most important roost. All confirmed roost structures are outside of the development footprint. There were also 38 trees with potential roost features within the site but the applicant notes that these are outside the footprint of proposed works.

The report notes that there were no Annex I aquatic habitats within or downstream of the site. In addition, the report also notes that watercourses in the area showed evidence of having been heavily modified. Key species recorded included salmonids, brook lamprey and otter, albeit in low numbers, although there were several high value salmon nurseries in the survey area. White-clawed crayfish was also found but only at a single survey site. The assessment refers that there will be no loss of Annex I or potential ancient woodland habitats, with most of the habitat loss predicted to occur for agricultural fields and commercial forestry.

Without mitigation, effects of habitat loss, disturbance and displacement could affect breeding common snipe, Eurasian woodcock, yellowhammer and meadow pipit. Low levels of collision are also predicted for bats but are not likely to translate into significant effects on populations. Without mitigation, pollution to downstream watercourses could also affect salmon, lamprey, white-clawed crayfish, european eel, and otter.

Detailed mitigation measures are presented to be put in place to protect downstream water quality, birds, bats, terrestrial mammals, habitats and prevent the spread of invasive species. Following the implementation of these mitigation measures, the applicant has concluded *"The NIS considered that with mitigation measures, the Proposed Development would not give rise to any appreciable effects on Natura 2000 sites. Proposed mitigation will ensure that there will be minimal residual effects on important ecological features. The only potentially significant residual effects identified are the loss of breeding territories to Eurasian woodcock at the local scale."*

The applicant has proposed biodiversity enhancement measures. Amongst the most noteworthy is the replacement of 98.9 m of treelines and 548.86 m of hedgerows in situ. This is in addition to the proposed 13.69 hectare replanted woodlands to be provided off-site. It is proposed that there will be 1,461m of additional new hedgerow and 396m of additional treeline planted. The replacement of treelines and hedgerows will also ensure that there is no net biodiversity loss as a result of the development.

In relation to potential collision risk and injury with operational turbines, the applicant notes that the proposed development may present a collision risk to whooper swan. The data confirms that whooper swan makes occasional flights through the site. Using the data from the surveys, collision risk modelling

(CRM) has been completed which indicates that the proposed development could result in 0.24 to 0.27 collisions per year, or 1 bird every four years. The applicant notes the following:

"However, it should be noted that the population of this species has generally been increasing nationally and in Westmeath (Burke, et al. 2021), it is not known whether the birds observed at these projects are part of the SPA population. Furthermore, since 2002 there are few (10 in the whole of Europe) known instances of this species colliding with wind turbines (Dürr, 2023). Regardless, when set against the recent increases (25% increase in Ireland between 2015 and 2020 to 14,467 birds, and 152.4% increase in Westmeath to 982 birds (Burke, et al. 2021)) the predicted cumulative mortality from these wind farms would not have a perceptible effect on the whooper swan population. In combination, the risk of undermining the conservation objectives and having an adverse effect on site integrity is considered to be low."

In the event of a grant of permission the applicant should be conditioned to employ a full time Ecological Clerk of Works to oversee the mitigation proposals and general biodiversity works.

Chapter 6 - Land, Soils and Geology

This chapter includes an assessment of the site and a 2km boundary of the site to inform the assessment of land, soils and geology was undertaken. Subsoils are predominantly comprised of limestone sands and gravels and limestone glacial deposits containing a range of grain sizes from clay to boulders (till). There are also occurrences of peat, sands and gravels formed from glacial meltwater deposits within linear features (eskers), lake derived subsoils (lacustrine) and alluvium within the study area. The peat occurrences are subdivided into two types – the northern peat underlying T1 and T3 is noted as fen peat and to the south it is mapped as cut peat.

Site investigation work was carried out between 2022and 2024 by SLR to investigate the presence of peat near T1, T3 and T7. Peat probing survey work identified that the southern area which is publicly mapped by the GSI as "cut peat" around T7 has no peat present. Fen Peat was identified in the area of T1 and T3, fen peat in this area. Most fen peats in Ireland have been drained for agriculture and it appears that this occurrence has been at least partially drained. Fen peats typically have poor drainage and are suitable for grazing only.

A Peat Landslide Hazard & Risk Assessment (PLHRA) was undertaken by SLR to consider the potential risk of peat slides occurring at the site. The assessment concludes that the site is a low-lying area with no significant hill slope gradients, the proposed wind farm infrastructure will generally avoid the thickest areas of peat and there is no evidence of historical peat slide activity and the risk of slope instability due to peat around T1 and T3 is low to negligible. One existing quarry is located near to the northern cluster of turbines but outside of the application site.

The impact assessment process considered the potential effects during the construction, operation and decommissioning phases of the development.

- During construction potential impacts include forestry removal, material excavation, fuel and oil leaks and spills and peat instability around turbine location T1.
- During the operational phase of the development, there will be no new direct effects to land, soils, subsoils and bedrock
- During decommissioning, machinery and plant operating on site represent a risk of fuel and oil spills or leaks, similarly to the construction and operation phases.

Detailed mitigation measures have also been included for the areas of peat in the area of T1 and T3. Documentation refers that mitigation measures will be put in place during construction such as careful micro site of wind turbine bases, hardstanding and access track alignments to minimise effects on prevailing hydrology. Mitigation measures applied during decommissioning and operational activities will be similar to those applied during construction.

With respect to residual impacts, applicant refers that the implementation of the mitigation measures, will reduce to imperceptible the potential effects of fuel spill on soils and bedrock. Slight residual effects for potential peat instability and loss of soils and subsoils through material excavation are predicted. Applicants propose peat extraction in the area of the turbine location to accommodate the Turbines thereby reducing the depth of peat at this location. Signs of peat instability are referred to such as slumping of foundations and concrete bases associated with the wind turbines and remedial measures would be implemented to prevent a failure event, the report concludes that the potential effect of peat instability would be Not Significant.

Based on the details provided, it is considered that the proposed development would not have adverse impact on the lands, soils and geology of the area.

Chapter 7 – Water

Chapter 7 of the EIAR outlines that hydrological and hydrogeological data (including walkover surveys and hydrological mapping, GPS survey, Water Framework Directive Assessment, Flood Risk Assessment and other relevant assessments) were used to inform hydrological assessment. The conventional source-pathway-target mode was applied in assessing potential effects on downstream environmental receptors as a result of the proposed development.

The site is situated across two sub-catchments within the wider Boyne catchment (Boyne_SC_050 and Boyne_SC_070). The D'arcy Crossroads Stream runs along the north-western boundary and the Killacroy Stream runs along the northern boundary, in an east-west direction, where it ultimately joins the Darcy Crossroads Stream. Approximately 1.8 km south-west of the confluence, the Darcy Crossroads Stream flows into the River Stonyford and forms a part of the River Boyne and River Blackwater SAC. The River Stonyford flows in the south-east direction for approximately 19 km where it joins the River Boyne. The proposed cable route will cross two sections of the Athboy River as it enters Clonmellon to the north of the development.

The Newtown Lough Fen is located to the east of the Northern Cluster and is upstream of the River Stonyford. The dark limestone and shale bedrock of the Lucan Formation underlying the site is classified as a Locally Important Aquifer (Ll) - Bedrock which is Moderately Productive only in Local Zones. Groundwater flow is considered to be entirely through interconnected networks of fractures, with flow from high elevations to low elevations. No karst features have been identified within a 5km radius of the Proposed Development. Groundwater vulnerability underlying the Proposed Development is predominantly classified as 'High', with lesser areas classified as 'Moderate'.

The Study Area is underlain by the Athboy Groundwater Body. A groundwater body is also shown associated with the Newtown Lough Fen groundwater-dependent terrestrial ecosystem (GWDTE). The GWDTE-Newtown Lough Fen (SAC002299) groundwater body is shown to the southeast of the lough. The WFD assessment found these groundwater bodies to have Good water quality status and are not at risk.

The applicant states that there are no public water schemes in the vicinity of the Proposed Development area and that there are no groundwater supply wells have been identified within the 2km Study Area. In this context, it is stated that no significant effects on surface water or groundwater quality will occur during the construction or operational phase of the Proposed Development. There is no direct discharge from the proposed development site to downstream receiving waters and it is outlined that no significant cumulative effects on the hydrology and hydrogeology environment will occur as a result of the proposed development at construction, operational and decommissioning stage. On the basis of the assessment provided, it is considered that the findings of no significant cumulative effects on the hydrology and hydrogeology environment are logical and reasonable.

Chapter 8 – Air and Climate

Chapter 8 of the EIAR describes and assesses the potential significant direct and indirect effects on air quality arising from the construction, operation and decommissioning of the proposed development.

The documents submitted note that the production of energy from wind turbines has no direct emissions and harnessing more energy by means of wind farms will reduce dependency on fossil fuels, thereby resulting in a reduction in harmful emissions that can be damaging to human health and the environment. Some minor short term or temporary indirect emissions associated with the construction of the proposed development include vehicular and dust emissions. Mitigation measures are outlined in the EIAR and they appear reasonable.

The report concludes *"Impacts from the Proposed Development on Air Quality are expected to be minimal and limited to the Construction and Decommissioning phases of the Proposed Development. These emissions will arise from the delivery of materials and construction of the Proposed Development. As such, taking into account mitigation measures proposed, the overall impact is negligible and not significant.."*

Having reviewed the details provided, the conclusion provided in respect of air and climate appears plausible and acceptable. The proposed development by virtue of its nature of use provides an

opportunity to reduce emissions of carbon dioxide, oxides of nitrogen (NOx), and sulphur dioxide (SO2) to the atmosphere which may otherwise arise due to the continued dependence on electricity derived from non-renewables (e.g. coal, oil and gas-fired power stations) as opposed to renewable energy sources such as the proposed development.

Chapter 9 – Noise

This chapter assesses the potential noise and vibration impacts during the construction, operation and decommissioning phases at the nearest Noise Sensitive Receptors (NSRs). Baseline noise monitoring was carried out at six receptor locations surrounding the site to establish existing levels of background noise in the vicinity and to then enable appropriate noise limits for the site to be derived. The chosen noise monitoring locations were representative of the different noise environments in the vicinity of the Proposed Development in addition to being located at some of the closest dwellings to the proposed wind farm development. The baseline noise monitoring was used to derive appropriate noise limits according to the Department of the Environment, Heritage and Local Government DoEHLG Wind Energy Planning Guidelines.

With regard to potential noise and vibration impact during the operational phase and construction phase; it is considered that on-site construction noise will be generated from the construction of the turbine foundations, the erection of the turbines, the excavation of trenches for cables, and the construction of associated hard standings and access tracks, and construction of the substation, vehicles on local roads and access tracks is also generated from the delivery of the turbine components, substation components and construction materials, notably aggregates, concrete and steel reinforcement. There is potential for temporary elevated noise levels due to the cable route works but these may only occur for only short periods of time at a very limited number of dwellings. The applicant has noted that the construction noise assessment determined that associated levels are expected to be audible at various times throughout the construction programme but remain with acceptable limits such that their temporary effects are not significant.

Operational noise modelling has been based on the use of the manufacturer's sound power data for two options for the candidate turbines, which the applicant notes will be decided at a later stage. The Siemens Gamesa SG155 6.6 MW and the Vestas V162 7.2 MW wind turbines have been separately assessed.

The applicant submits *"that operational noise from both the proposed turbine options confirms that the predicted wind farm noise emission levels do not exceed the daytime or night-time noise limits derived in accordance with the 2006 Guidelines under all wind speeds and at all locations and the assessment demonstrates that the wind farm can operate without constraint or the need for mitigation and comply with noise limits derived from the 2006 Guidelines. These operation effects are not significant."*

Noise mitigation measures for the construction stage of the development have been included in the EIAR and CEMP and these appear reasonable. Having regard to the foregoing it is considered that the proposed

development would not have any unacceptable direct or indirect impacts in terms of noise and vibration and that cumulative effects are not likely to arise.

Chapter 10 – Landscape and Visual

The landscape and visual impact assessment (LVIA) of the Proposed Development is addressed within Chapter 10 of the EIAR and comprises five main sections as follows: Visibility of the Proposed Development – Zone of Theoretical Visibility (ZTV) Mapping, Landscape Baseline, Visual Baseline, Cumulative Baseline and Likely and Significant Effects.

The subject windfarm site is located within 'LCA 3 – River Deel Lowlands' of the Westmeath County Development Plan 2021-2027. This LCA is *'typified by low-lying pasture punctuated with small lakes which are flanked by scrub and wet woodland.*

The application site is sited in an area identified as 'Low capacity' in relation to wind energy developments. The proposed substation and grid connection is located within County Meath. The most relevant landscape character area in county Meath is 'LCA 17 – South West Kells Lowlands' from the Meath County Development Plan which is within the 'Lowland Landscapes' character type. Policies and objectives relating to wind energy developments are outlined in the Planning Statement which accompanies the application.

A computer-generated Zone of Theoretical Visibility (ZTV) map has been submitted to illustrate where the proposed wind farm will be potentially visible from. The ZTV map is based solely on bare ground visibility and ignores features such as trees, hedges or buildings, which may screen views. 6 designated views within County Westmeath, Protected View 26, 28, 29, 30, 31 and 33 have been assessed together with views from the surrounding road networks and specifically the N52, which runs directly alongside the site and c. 170m east of the nearest proposed turbine at its closest point.

The assessment concludes that in terms of the significance of landscape effects for the proposed wind farm, combining a Low sensitivity judgement for the proposed development site and a High-Medium magnitude of operational stage landscape impact is considered to result in a Moderate significance of landscape effect. This is because the magnitude of impact will be marginally higher near the end of the construction phase when the main structures have emerged, and construction machinery/workers are still on site, but given the short-term duration, these effects are not considered to give rise to a higher overall significance judgement.

Sub-station - the substation site and immediate surroundings are deemed to have Medium-Low landscape sensitivity and value. The site is located at the periphery of an existing population centre focused around a national road junction. As such, most of the 'town' is located west of the junction, with the main street along the N52 to the west. It is noted that the sub-station is located in Co Meath.

It is submitted under the EIAR that the proposed development is considered to be acceptable from a landscape and visual perspective.

Of the 6 closest Protected Views within the Westmeath County Development Plan 2021-2027, 5 are located outside of the ZTV. Protected View 30 which consists of "View from Lough Lene Parking and Picnic area", although located within the ZTV, this view direction is away from the proposed site. The Planning Authority sees no reason not to concur with the finding of the EIAR from a landscape and visual perspective.

Chapter 11 – Shadow Flicker

Two turbine models have been considered for this assessment: one with a 155m rotor diameter (Scenario 1), and one with a 162m rotor diameter (Scenario 2). As the shadow flicker study area is defined by the diameter of the rotor, two modelling scenarios have been used as follows. As the rotor diameters represent both ends of the range of effects, all permutations within the range which the planning application is seeking permission for will be within the identified effects. The nearest dwelling is located approximately 724 metres from any turbine (four times the tip hight equates to 720m).

The Applicant has set the shadow flicker study area at 1.62km (10 x rotor diameter of 162m). A shadow flicker assessment has been undertaken on up to 211 receptors within 10 rotor diameters of the proposed turbines under two study area scenarios. When considering the 'Average Theoretical Minutes Per Day', (accounting for any day in which shadow flicker is predicted to occur) then shadow flicker exceeds 30 minutes at 84 receptors under Scenario 1, and 92 receptors under Scenario 2.

The results of the conservative shadow flicker assessment predict that the development has the potential to introduce shadow flicker impacts at some inhabited residential buildings surrounding the wind farm. Documentation refers that the applicant is committed to implementing a zero shadow flicker approach in line with the 2019 Draft Revised Wind Energy Development Guidelines. This will be undertaken by shutting down turbines during times when wind and climactic conditions are such that shadow flicker could occur, using appropriate mitigation measures such as the turbines inbuilt shadow flicker control module. The module would control a specific turbine (or turbines) which would be programmed to shut down on specific dates at specific times when the sun is bright enough, there is sufficient wind to rotate the blades and the wind direction is such that nuisance shadow flicker could occur. The assessment concludes that the implementation of the proposed mitigation measures, namely a zero-shadow flicker approach, will ensure that shadow flicker at all buildings is eliminated resulting in no impacts to receptors.

Chapter 12 – Cultural Heritage

The Cultural assessment presented in Chapter 12 of the EIAR selected two study areas;

- a 1km-radius study area as measured from the proposed development Site boundary, to inform the predictive model of unknown buried archaeology; and
- a 5km-radius study area as measured from the proposed development Site boundary, to inform the settings assessment, in conjunction with a Zone of Theoretical Visibility

Protected structures

The nearest protected structure is Rosmead House RPS009-048 and Rosmead Triumphant Arch RPS 009-034 and non-designated features comprising a quadrangle and walled garden, located c.30m and 200m respectively to the northwest of the house which are located within the southern cluster of turbines. Turbine 8 is located c. 370m to the northeast of Rosmead House. The Zone of Theoretical Visibility (ZTV), contends that Turbine 8 would be visible from Rosmead House (viewpoint 23 & 25) and will have a clear presence from the entrance to the estate at Triumphant Arch. The EIAR assessment concludes that the overall significance of effects is a slight significance upon these assets. The Cultural Heritage Assessment concludes the proposed development would cause no significant indirect effects to heritage assets within or outside the site.

A slight significance of effect was identified to Ballinlough Castle, Gateway & Demesne Walls (RPS 009-035, 009-033 & 009-032). The Bare earth ZTV indicated that all 8 turbines will be visible from Ballinlough Castle estate. The assessment refers that the impact will be of slight significance as in reality, the effect will be less severe since the ZTV model does not take natural screening and buildings into consideration which will alleviate if not remove the impact on setting altogether.

It is considered that any likely visual effects on the setting of a protected structure are entirely reversable following the decommissioning of the proposed 8 (no.) wind turbines.

Archaeology

Archaeology is discussed under 'Chapter 12 of the EIAR. There are two recorded monuments WM 009-018 (enclosure) and 009-017 (Ringfort-Rath) within the application site. Turbine 5 is located c. 20m from WM009-018 buffer and is not predicted to cause direct effects to the feature. The assessment found no potential for direct adverse impacts to any known archaeological remains within the site boundary, and a beneficial impact upon the ringfort (WM009-018) through the felling of woodland around the monument. There were no predicted indirect effects upon the series of Ringforts (ME022-029, ME023-010, ME023-009, WM009-017, WM009-014, WM009-016, WM009-018, WM009-033, WM009-040) across the landscape. In all cases, the significance of effect upon all of these assets were deemed neutral.

The significance of effect upon potential archaeology is concluded as being 'slight'. Archaeological mitigation has been proposed, and the information gained and contributed to the archaeological record through archaeological works suggested (strip, map and sample) would offset the loss of the archaeological remains. Mitigation for this has been laid out in section 12.94 of the EIAR. The Archaeological assessment concludes that archaeological potential within the main wind farm site has

been identified to be low, likely comprising only post-medieval assets such as field boundaries and cultivation deposits.

ACA/Special Amenity Area Orders

There are no ACA'S or Special Amenity Area Orders affecting the application site.

Chapter 13 – Material Assets

Chapter 13 of the EIAR considers the likely significant effects of the proposed development on Transportation Infrastructure, Telecommunications and Aviation and Other Material Assets, which are economic assets of human origin. It is considered that the findings of this chapter are generally acceptable.

Chapter 14 – Traffic

Chapter 14 of the EIAR assess the worst case scenario turbine dimensions (rotor diameter of 162m) which was assessed for swept path analysis and worst case scenario of trips. Baseline traffic flow surveys were undertaken by Tracsis who installed an automatic traffic counter (ATC) within the study area, specifically on the N52 close to Site Entrance 2.

The roads included in the Turbine Delivery Route within Co Westmeath are:

- The N52 from the junction with the N4
- The L5542 from the junction with the N52
- The N52 north of the development to the proposed substation location at Clonmellon
- The N52 in Clonmellon along the L1547 to the L6821 (Co Meath) and proposed substation at Clonmellon.

The assessment concludes that the proposed design parameters did not affect the significant of effect in relation to traffic and carrying capacity of the road network. An assessment of this chapter of the EIAR is referenced under 18.3 of this report and is deemed acceptable subject to the inclusion of conditions in the event of a recommendation to grant planning permission.

Chapter 15 - Major Accidents and Natural Disasters

The assessment of the vulnerability of the proposal to major accidents and natural disasters, and the risk of the proposal to cause accident or disasters is carried out in Chapter 15 of the EIAR in line with the requirements of the EIA Directive (2014/52/EU). It is indicated that the proposal is not regulated or connected to or close to any site regulated under the Control of Major Accident Hazards Involving

Dangerous Substances Regulations i.e., SEVESO sites and, as such, there are no potential effects from this source.

Documentation refers that in the event of severe weather conditions, such as flooding during construction, work will be halted. The project design incorporates design measures in relation to ensuring peat stability in the areas of T1 and T7. A detailed assessment is provided in **Chapter 6** of the EIAR in relation to work undertaken to ensure the long term stability of ground conditions and the mitigation measures incorporated to achieve this.

During the operational phase of the wind farm, particularly in the context of climate change, there is the potential for increased storm events and severe weather. Wind turbines are designed to withstand specific wind parameters and will automatically shut down during high wind speeds.

With regard to the construction stage, the decommissioning poses similar risks in terms of major accidents and disasters. As the decommissioning stage will again be limited to a temporary period of time, the report concludes that there is a low risk of major accidents or disaster.

During construction, the CEMP specifies the Emergency Response Procedure to be followed in case of emergencies, encompassing contamination, health and safety, and environmental protection. It provides detailed information on all mitigation and monitoring measures to be implemented throughout the various phases of construction, operation, and decommissioning.

The proposed development, together with the implementation of proposed mitigation measures in place in relation to potential effects associated with contamination at construction and operational stage and fire/explosion at operational stage, was found to have no potential for significant in-combination or cumulative effects associated with the potential for the project to be impacted by major accidents or natural disasters or to have potential to cause major accidents or natural disasters. These findings are considered plausible.

Chapter 16 – Interaction of Effects

This chapter outlines that the potential for interaction of impacts has been assessed, throughout the EIAR, as part of the Impact Assessment process and that where any potential negative impacts have been identified, these impacts have been avoided or reduced by design and proposed mitigation measures. All environmental factors interrelate, and an assessment of these interactions is an important requirement of the EIAR process. All interactions of effects are assessed and have been fully considered in the relevant chapters of the submitted EIAR. Having assessed the interaction of likely effects during each phase of the development (i.e. construction, operation, decommissioning), it is considered that the proposal is not likely to contribute to significant cumulative effects on the environment.

Chapter 17 - Schedule of Mitigation and Monitoring Proposals

This chapter provides an overall schedule of all mitigation and monitoring proposals contained within respective chapters of the EIAR to allow an easy to audit list that can be reviewed and reported on during each phase of the development i.e. pre-commencement phase; construction phase; operational phase and decommissioning phase.

14. CARRYING CAPACITY AND SAFETY OF ROAD NETWORK.

Please refer to the details contained in Chapter 14 Traffic and District Engineer reports under Section 16 below.

15. ENVIRONMENTAL CARRYING CAPACITY OF THE SUBJECT SITE AND SURROUNDING AREA:

Environmental Carrying Capacity of the subject site and surrounding area has been satisfactorily addressed within Section 13 of this report.

16. REPORTS OF RELEVANT LOCAL AUTHORITY SECTIONS:

16.1 District Engineer:

The District Engineer report dated 1st May 2024 raises no objection to the proposed development subject to conditions pertaining to; clarification of proposed road improvements along the L5542 road, provision of adequate sightless at proposed site entrances. Submission of prior to commencement in respect of; mitigation measures for site material spillage on public roads, detailed condition survey along all haulage routes, queuing arrangement of construction traffic, source and volume of aggregate materials, pre-condition survey of cable routes, identification of existing watercourse crossings/bridges, details of cable installation and revised Construction Traffic Management plan. The report also request by way of condition, the provision of a bond and special levy for roads.

16.2 Environment Section:

The Environment Section report dated 10th May 2024 assessed Construction Environmental Management Plan (CEMP), Wastewater provisions, Site Drainage, Shadow Ficker, Air Quality and Climate, Noise, and Biodiversity. The report raises no objection to the proposed development subject to the inclusion of conditions in respect of the CEMP, compliance with mitigation measures, Wind Energy Development Guidelines, employment of shadow flicker control software, employment of a Ecological Clerk of Works and a Bird Specialist, preparation of a Construction and Demolition Resource Waste Management Plan (RWMP).

16.3 TRANSPORTATION SECTION

The Transportation Section dated 17th May 2024 raises no objection to the proposed development subject to the inclusion of conditions in respect of a structural condition survey of all bridges/culverts along the proposed access route to the development, also identification of all bridges/culverts along the proposed grid connection route and identification of adverse impact avoidance proposals.

17. THIRD PARTY OBSERVATIONS/SUBMISSION SUBMITTED TO AN BORD PLEANALA

The closing date for submissions to An Bord Pleanála is 6th June 2024, the Planning Authority has not received notification of any submissions at the time of writing this report, which pre-dates the closing third party submission date.

18. PLANNING AUTHORITY'S ASSESSMENT.

18.1 Principle of Proposed Development:

The proposed wind farm site is located within an area of predominantly rural character and sited on lands comprising predominantly improved grassland and agricultural pastures and private forestry and woodlands. The lands of the application site comprise rolling terrain with a significant number of hills and large network of established field boundaries. The most open area is to the south of the site where Rosemead Rouse and Triumphant Arch (Protected Structure RPS 009-048) is located set within a relatively open farmland. A quarry is located between the two windfarm clusters. The subject lands are located within 'River Deel lowlands' (Landscape Character Area 3), as defined by the Landscape Character Assessment contained within the Westmeath County Development Plan 2021-2027 (CDP). This landscape is best described as Hilly and Flat Farmlands as per the Wind Energy Development Guidelines 2006.

Supporting policy for onshore industrial wind farms can be found in national and regional policy. The proposed wind farm development is considered to comply with national and regional energy and climate action policies, as detailed in Section 4 of this report. The proposed development is considered generally compliant with the Wind Energy Guidelines 2006 (and the Draft Revised Wind Energy Development Guidelines 2019) in terms of siting and landscape suitably for large wind farm developments. In terms of appropriate location for Wind farm developments CDP policy **CPO 10.146** refers as follows:

To strictly direct large-scale energy production projects, in the form of wind farms, onto cutover cutaway peatlands in the County, subject to environmental, landscape, habitats and wildlife protection requirements being addressed.

In the context of this policy, industrial scale/large-scale energy production projects are defined as follows:

Projects that meet or exceed any of the following criteria:

- *Height: over 100m to blade tip, or*
- *Scale: More than five turbines, or*
- *Output: Having a total output of greater than 5MW.*

Developments sited on peatlands have the potential to increase overall carbon losses. Proposals for such development should demonstrate that the following has been considered:

- *Peatland stability; and*
- *Carbon emissions balance.*

Having regard to the foregoing, it is considered that the preferred locations for large scale energy production in the form of wind farms, is on cutover cutaway peatlands in the County, subject to nature conservation and habitat protection requirements being fully addressed. As the proposal is not located on cutover/cutaway peatlands it is considered that the proposal contravenes CPO 10.146 of the CDP and therefore the principle of the proposal is not supported by Development Plan policy, as outline above. Notwithstanding this fact and for the sake of completeness, the proposal has been further assessed under the following headings.

18.2 Residential Amenity:

There are three main potential impacts of relevance when considering the amenity of residents in the context of a proposed wind farm, namely; - Shadow Flicker, Noise and Visual Amenity.

Shadow Flicker

Wind Turbines, like other tall structures, can cast long shadows when the sun is low in the sky. The effect known as 'shadow flicker' occurs where the blades of a wind turbine cast a shadow over a window in a nearby house and the rotation of the blades causes the shadow to flick on and off. Generally, only properties within 130 degrees either side of north, relative to the turbines, can be affected at these latitudes in Ireland, turbines do not cast long shadows on their southern side.

The DoEHLG Wind Energy Guidelines (2006) state that shadow flicker lasts only for a short period of time and occurs only during certain specific combined circumstances, as follows:

- the sun is shining and is at a low angle in the sky, i.e. just after dawn and before sunset, **and**
- the turbine is located directly between the sun and the affected property, **and**
- there is enough wind energy to ensure that the turbine blades are moving, **and**
- the turbine blades are positioned so as to cast a shadow on the receptor.

There are no dwellings located within 500m (standard within DoHPLG 'Draft Revised Wind Energy Development Guidelines' (December 2019)) of any proposed wind turbine.

The current shadow flicker guidelines recommend that shadow flicker at neighbouring dwellings within 10 x rotor diameter of a proposed turbine should not exceed a total of 30 hours per year or 30 minutes per day. The Applicant has set the shadow flicker study area at 1.62km (10 x rotor diameter of 162m).

The Siemens Gamesa SG155 6.6 MW (Scenario 1) and the Vestas V162 7.2 MW (Scenario 2) wind turbines have been separately assessed. A shadow flicker assessment has been undertaken on up to 211 receptors within 10 rotor diameters (1,620m) of the proposed turbines under two study area scenarios. When considering the 'Average Theoretical Minutes Per Day', (accounting for any day in which shadow flicker is predicted to occur) then shadow flicker exceeds 30 minutes at 84 receptors under Scenario 1, and 92 receptors under Scenario 2.

When considering the 'Total Theoretical Hours Per Year', 74 receptors are predicted to exceed the WEDG 2006 threshold of more than 30 hours per year under Scenario 1, and 83 under Scenario 2. However, the applicant notes that when accounting for a more 'likely' scenario, where the average annual sunshine hours are taken into account, 18 receptors are predicted to exceed more than 30 hours per year under Scenario 1, and 23 properties are predicted to exceed more than 30 hours per year under Scenario 2.

The results of the conservative shadow flicker assessment predict that the development has the potential to introduce shadow flicker impacts at some buildings surrounding the wind farm. Documentation refers that the applicant is committed to implementing a zero shadow flicker approach in line with the 2019 Draft Revised Wind Energy Development Guidelines. This will be undertaken by shutting down turbines during times when wind and climactic conditions are such that shadow flicker could occur, using appropriate mitigation measures such as the turbines inbuilt shadow flicker control module. The module would control a specific turbine (or turbines) which would be programmed to shut down on specific dates at specific times when the sun is bright enough, there is sufficient wind to rotate the blades and the wind direction is such that nuisance shadow flicker could occur. The assessment concludes that the implementation of the proposed mitigation measures, namely a zero-shadow flicker approach, will ensure that shadow flicker at all buildings is eliminated resulting in no impacts to receptors.

In the event of a grant of permission it is recommended that a condition should be imposed, in respect of wind turbines located within 10 x rotor diameter of a sensitive receptors, shall include an automatic shadow flicker control mechanisms which will ensure that if shadow flicker occurs and impacts existing properties, the relevant wind turbines must be shut down.

Noise:

There are two quite distinct types of noise source within a wind turbine. Mechanical noise is currently less of a concern for amenity due to modern designs with additional acoustic enclosure of components to minimise noise emissions. Some manufacturers have eliminated the requirement for a gearbox, which in the past could generate significant tonal noise. Tonal noise may still arise, but the dominant source of wind turbine noise is currently aerodynamic noise. Chapter 9 of the EIAR considers noise and vibration associated with the construction and operation of the development. A series of computer-based

prediction models have been prepared in order to quantify the noise level associated with the operational phase of the proposed development. The curves are based on the baseline noise levels which represent the lowest baseline noise levels measured as part of the noise monitoring programme.

Baseline noise monitoring was carried out at six receptor locations surrounding the proposed development to establish existing levels of background noise in the vicinity and to then enable appropriate noise limits for the site to be derived.

The chosen noise monitoring locations were representative of the different noise environments in the vicinity of the development in addition to being located at some of the closest dwellings to the proposed wind farm development. The baseline noise monitoring was used to derive appropriate noise limits according to the Department of the Environment, Heritage and Local Government DoEHLG Wind Energy Planning Guidelines.

With regards to potential noise and vibration impact during the operational phase and construction phase - On-site construction noise will be generated from the construction of the turbine foundations, the erection of the turbines, the excavation of trenches for cables, and the construction of associated hard standings and access tracks, and construction of the substation, vehicles on local roads and access tracks is also generated from the delivery of the turbine components, substation components and construction materials, notably aggregates, concrete and steel reinforcement. There is potential for temporary elevated noise levels due to the cable route works but these may only occur for only short periods of time at a very limited number of dwellings. The applicant has noted that the construction noise assessment determined that associated levels are expected to be audible at various times throughout the construction programme but remain with acceptable limits such that their temporary effects are not significant.

Operational noise modelling has been based on the use of the manufacturer's sound power data for two options for the candidate turbines, which the applicant notes will be decided at a later stage. The Siemens Gamesa SG155 6.6 MW and the Vestas V162 7.2 MW wind turbines have been separately assessed.

The applicant indicates *"that operational noise from both the proposed turbine options confirms that the predicted wind farm noise emission levels do not exceed the daytime or night-time noise limits derived in accordance with the 2006 Guidelines under all wind speeds and at all locations and the assessment demonstrates that the wind farm can operate without constraint or the need for mitigation and comply with noise limits derived from the 2006 Guidelines. These operation effects are not significant."*

Noise mitigation measures for the construction stage of the development have been included in the EIAR and CEMP ('Chapter 9, Noise' of EIAR report) and these appear reasonable.

Visual Amenity:

The Wind Energy Development Guidelines set out guidance for the siting and design of wind energy developments in various landscape contexts by defining six landscape character types that represent

most situations where wind turbines may be proposed. The guidance is intended to be indicative and general, and notes that it, represents the 'best fit' solutions to likely situations. However, regarding these six landscape character types, the Guidelines also note that it is common for a wind energy development to be located in one landscape but visible from another and recommends that the entire visual unit should be taken into consideration.

As noted in the Wind Energy Development Guidelines (2006) and within the County Development Plan (Section 10.23.2), there is a need to balance the preservation and enhancement of nature conservation and habitat protection against the need to develop key strategic infrastructure in a manner that is consistent with proper planning and sustainable development. The proposal would have a visual impact from roads in the immediate vicinity and from residential properties therein, in locations where screening is not available or maintained. It is not considered that the proposal would constitute such a material alteration of visual intrusion as to warrant an unsupportive recommendation from a visual assessment.

The DoHPLG 'Draft Revised Wind Energy Development Guidelines' (December 2019) indicate a setback distance for visual amenity purposes of four times the tip height between a wind turbine and the nearest point of the curtilage of any residential property in the vicinity of the development, subject to a minimum mandatory setback distance of 500 metres. The nearest dwelling is located approximately 724 metres from any turbine (four times the tip hight equates to 720m).

The Planning Authority considered that the setback distance to the nearest dwelling complies with both the Wind Energy Development Guidelines (2006) and the Draft Revised Wind Energy Development Guidelines' (December 2019) and the proposal is deemed acceptable from a visual amenity perspective.

18.3 Grid Connection, Haulage Route and Traffic:

The study area for this assessment has been defined as the N52 and the L5542 leading to the wind farm access points. The roads included in the Turbine Delivery Route are:

- The N52 from the junction with the N4
- The L5542 from the junction with the N52
- The N52 north of the Proposed Development to the proposed substation location at Clonmellon
- The N52 in Clonmellon along the L1547 to the L6821 (Co Meath) and proposed substation at Clonmellon.

Baseline traffic flow surveys were undertaken by Tracsis who installed an automatic traffic counter (ATC) within the study area, specifically on the N52 close to Site Entrance 2. Chapter 14 of the EIAR provides a summary of traffic flows, including a breakdown for HGVs, based on traffic count observations and predictions in relation to the numbers of HGV and other trips likely to be generated by the various stages of construction. The two on-site borrow pits and the excess from the cut and fill requirements are likely

to result in all aggregate material being secured within the site. However, the applicant has taken a worst-case scenario and assumed that the type of aggregate required for construction will be imported.

It has been estimated that the development will result in an increase of 5% to the total flow of traffic on the N52 and an increase of 27% to the number of HGVs on the N52. The calculations estimate that the N52 will still have 80% spare capacity with the proposed development.

The additional traffic on the L5542 and the L1547 are likely to be proportionally higher than that assessed for the N52. However, the predicted impacts are concluded as being minor in terms of community severance (road crossing) and delays. In terms of cable laying, the greatest impact is predicted at the L5542 during periods of road closure and diversion. This is expected to be a significant impact. The general amenity will also be significantly impacted on all roads while works are ongoing.

The report concludes that works would occur over a relatively short construction period and traffic management measures would be in place, the predicted impact on road safety is minor. Unavoidable impacts associated with the delivery of turbine components, however community consultation public awareness together with management of deliveries, the report concludes that the impacts will not be significant limited to the turbine delivery days.

The district engineer report requests a Traffic Management Plan to address the shortfall in sightlines from the N52 site access no. 3 in which 230m sight distance in both directions is required. This entrance is temporary and achieve a sight distance of 160m.

In terms of site construction works, a detailed precondition survey of the proposed haul routes and Culvert/Bridge Bearing Capacity Analysis Report for roads identified as the construction material haul routes should also be provided. A pre and post-condition survey of local roads and proposals for ongoing maintenance programme to be agreed and applied during the construction stage to avoid deterioration of the local roads. The developer should have a security bond in place and at post construction the developer should undertake to carry out any / all necessary improvement works. It should be noted that the District Engineer seeks that details be submitted which will allow for full examinination of development proposal. A number of additional conditions are also recommended by the District Engineer in the event of a grant of permission (See attached District engineer report).

Internal Accommodation tracks

A full appraisal of the volumes of materials required for the construction of the internal site roads/accommodation tracks is required.

18.4 Property Values

The DoECLG Wind Energy Guidelines 2006 do not refer to impact on property value but set standards in relation to minimum setback distance from and maximum noise impacts at residential properties. Therefore, if property values are not to be adversely affected, it would be necessary to ensure that the Wind Energy Development Guidelines standards are achieved and that noise and shadow flicker levels are controlled, in order to protect residential amenities.

In view of the number of wind farms constructed throughout the country, it is considered that evidence of potential impact of wind farms, within a local Irish context, should be provided in order to complete the assessment of impacts on property values.

18.5 Turbine Design

The principal specification of the 8 no. wind turbines is to be finalised, however parameters have been submitted as follows:

- Maximum Tip height of between 175m-180m
- Maximum Rotor Blade Diameter of between 155-162m
- Hub height 97.5m-99m
- Associated foundations and hardstanding areas.

The Planning Authority consider that no stripes whatsoever should be painted or attached to the turbines in order to keep them as visually clean as possible.

18.6 Amenity Potential:

Section 4.29 of the EIAR which accompanies this SID application discusses community gain proposal. The Community Benefit Fund is premised on bringing about significant, positive change in the local area. It is outlined that the nature of the community gain proposal will be subject to discussions with and input from the local community and commented that funding to support residences in closest proximity to the development and suggests the provision of a Near Neighbour scheme and support for adopting low carbon technologies which would reduce household energy usage and bills. Documentation refers that details of how the funds would be allocated would be developed in line with RESS requirements.

It is noted that any project which wants to avail of The Renewable Energy Support Scheme (RESS) must abide by the Terms and Conditions, published by the Department of Communications, Climate Action and Environment (February 2020), including the following:

1. A minimum of €1,000 shall be paid to each household located within a distance of a 1-kilometre radius from the Project;

2. A minimum of 40% of the funds shall be paid to not-for-profit community enterprises whose primary focus or aim is the promotion of initiatives towards the delivery of the UN Sustainable Development Goals, in particular Goals 4, 7, 11 and 13, including education, energy efficiency, sustainable energy and climate action initiatives;

3. A maximum of 10% of the funds may be spent on administration. This is to ensure successful outcomes and good governance of the Community Benefit Fund.

4. The balance of the funds shall be spent on initiatives successful in the annual application process, as proposed by clubs and societies and similar not-for-profit entities, and in respect of Onshore Wind RESS 1 Projects, on "near neighbour payments" for households located outside a distance of 1 kilometre from the Project but within a distance of 2 kilometres from such Project.

Based on the current RESS guidelines, the submitted documentation outlines that it is expected that a €2 contribution into a community fund for the first 15 years of operation of the proposed wind farm will be made for each megawatt hour (MWh) of electricity produced by this development. It is further indicated that this fund would be adjusted accordingly in the event that this commitment is changed in upcoming Government Policy. In this context, the proposal if developed under RESS, would attract a community contribution in the region of approximately €300,000/year over the 15 years for the local community which equates to €4.5 million being delivered within 15 years of operation. The value of this fund will be directly proportional to the electricity generated by the wind farm.

It is considered that limited information has been submitted by the applicant with regard to payment distribution and details of a benefit fund development working group. The matter of Community Gain can be appropriately addressed by way of condition in the event of a grant of planning permission.

18.7 Construction Environmental Management Plan (CEMP)

The CEMP document submitted appears to be a comprehensive document and it has identified and managed the key environmental concerns; critical sensitive receptors, controls and mitigation measures, a programme of monitoring. Technical guidance and protocols are included for the management of the project and for the implementation, monitoring and review of mitigation measures. The applicant has identified the critical waste streams and they have committed to abide by the Waste Management Act for the categorisation, storage, and removal of waste by authorised permit holders. No specific Waste Management Plan has been submitted and this should be conditioned. They also have identified appropriate systems for the storage and management of oils, fuels and other hydrocarbons.

The Applicant has identified susceptible streams/drains and have proposed mitigation measures such as 50m Buffer zones, and silt fences to protect these. The document has not as yet identified the person(s) responsible for the implementation, monitoring and revision of the CEMP, the person(s) responsible for emissions monitoring and control, or the person(s) responsible for waste management. However it has

been clearly indicated how this person(s) will fulfil their role and how they fit within the management hierarchy. Those occupying key management and overseeing roles have not yet be named either.

The Applicant has noted that vehicle or wheel washing facilities will be required as part of the construction phase of the Proposed Development. Mitigation control measures for cement-based products such as concrete lorry washing etc has been proposed which appear reasonable.

The CEMP document has identified mitigation measures for the identifying and for the protection of the ecology and biodiversity on the site and in the surrounding area. In the event of a grant of permission a condition should be applied that a revised CEMP be submitted prior to commencement which is to include updated drawings and identification of the key personnel are to be included in the updated CEMP. The CEMP is to remain a live document throughout the project.

18.8 Construction & Demolition Resource Waste Management Plan

The applicant has noted that a Waste Management Plan would be prepared. In the event of a grant of permission a condition should be applied that prior to construction the applicant must submit a Construction & Demolition Resource Waste Management Plan to include the details of the fully licensed waste contractor that will be employed to remove waste from the site.

18.9 Development Contributions & Bonds:

Development Contributions:

In the event of a grant of planning permission the levy as set out under the applicable Development Contribution Scheme made under section 48 of the Planning and Development Act 2000 should apply subject to any applicable indexation provisions of the Scheme at the time of payment.

Special Development Contribution:

The Councils' preference is for the attachment of a specific condition in the event of a grant requiring pre-surveying of affected roads, proposals for rendering the routes fit for purpose, ongoing monitoring and repair during the project, post construction survey and remedial works [District Engineers report refers].

Bonds

The DECLG Wind Energy Development Guidelines for Planning Authorities 2006 recommend that Planning Authorities do not to attach a bond for the decommissioning of the turbines, because the scrap value is likely to cover this cost. The District Engineer considers that the construction of this development may lead to long term damage to the road network (public roads/culverts/bridges) used as a haul route for the development. Accordingly, it is recommended that, in the event of a grant of permission, the applicant be required to contribute to the cost of repairing this damage and as such a cash bond should be paid to the

Planning Authority prior to commencement. The amount of the cash bond to be determined when material sources are known.

18.10 Conclusion and Recommendation:

Having regard to:

- the location of the proposed wind farm site
- the planning history of the site
- the character of the landscape in the area and of the general vicinity
- the pattern of existing and permitted development in the area and
- the distance to dwellings and other sensitive receptors from the proposed development

It is considered that the proposal either by itself or in cumulation with other projects, would be in accordance with European energy policy, relevant Section 28 Guidelines (including the provisions of the Wind Energy Development Guidelines – Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government in June, 2006), national and regional policy. The proposed development would, if permitted:

- make a positive contribution to Ireland's national strategic policy on renewable energy and its move to a low energy carbon future
- be capable of being integrated successfully at the subject site without undue adverse impact on the amenity of the local area
- not seriously injure the residential amenities of the area
- not be likely have a significant adverse impact on any designated site or the conservation objectives pertaining to same
- would not be likely to adversely affect archaeological or natural heritage in the area.

Notwithstanding, the current Westmeath County Development Plan 2021-2027 sets out, under Council policy objective (CPO) 10.146, *'To strictly direct large-scale energy production projects, in the form of wind farms, onto cutover cutaway peatlands in the County, subject to environmental, landscape, habitats and wildlife protection requirements being addressed.*

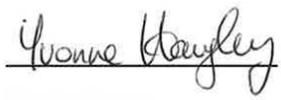
As such, having regard to the location of the proposal on predominately agricultural grassland and forestry, it is considered that the proposed development is contrary to Policy Objective CPO 10.146 of the Westmeath County Development Plan 2021-2027.

19. PLANNING AUTHORITY'S RECOMMENDATION:

Permission be refused for the following reason:

Council Policy Objective 10.146 of the Westmeath County Development Plan 2021-2027 sets out *'To strictly direct large-scale energy production projects, in the form of wind farms, onto cutover cutaway peatlands in the County, subject to environmental, landscape, habitats and wildlife protection requirements being addressed'.*

As the subject lands to which this proposed wind energy project relates are considered as being predominately agricultural grassland and forestry, given the scale of the project, it is considered that the proposed development would, if permitted, contravene CPO 10.146 of the Westmeath County Development Plan 2021-2027.



17th May 2024

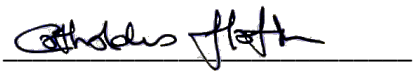
Yvonne Haughey **Date**

Executive Planner

21st May 2024

Brendan O'Brien **Date**

A/Senior Executive Planner



22/05/2024

Cathaldus Hartin **Date**

Senior Planner

23rd May 2024

Ambrose Clarke **Date**

A/Director of Services

_____ 23rd May 2024

Barry Kehoe **Date**

Chief Executive (Interim)