Remedial Environmental Impact Assessment Report (rEIAR)

Meenbog Wind Farm, Co. Donegal.

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1. NON-TECHNICAL SUMMARY

1.1 Introduction

This Remedial Environmental Impact Assessment Report (rEIAR) has been prepared by MKO on behalf of Planree Ltd (the Applicant) as part of an application for substitute consent to An Coimisiún Pleanála ('the Commission') under Section 177E of the Planning and Development Act 2000 (as amended) ('the Act').

This substitute consent application arises from a High Court decision on 10th April 2024 (upheld by the Court of Appeal on December 18th 2024) which determined that due to certain material deviations from the plans approved under the original permission the partially constructed Wind Farm constituted unauthorised development. Substitute consent is now sought to retain all works undertaken to date at the Meenbog Wind Farm.

The Subject Development comprises two elements: the Existing Development and the Prospective Development and shall be known as Meenbog Wind Farm. The wind farm was originally permitted by the Commission under ABP-300460-17, as subsequently amended by ABP-303729-19. A detailed description of the Existing Development is provided in Ch. 4: Description of the Prospective Development of this rEIAR.

For the purposes of this rEIAR:

- The **'Site'** refers to the application site boundary for the Subject Development as illustrated in red on Figure 1-1 of this EIAR. It comprises the Wind Farm Site, Grid Connection Site, and BMEP Site combined.
    - The **'Wind Farm Site'** refers to the area surrounding the wind turbines and associated infrastructure (including the onsite 110kV substation), from the Wind Farm Site entrance off the N15 National Road.
    - The **'Grid Connection Site'** refers to the area of the Site surrounding the Grid Connection from the Wind Farm Site entrance off the N15 National Road to the Clogher 110kV substation.
    - The '**BMEP Site'** refers to the areas of the Site to be managed for hen harrier habitat and peatland habitat enhancement.
- The **'Grid Connection'** refers to the 110kV underground cabling route, joint bays, and ancillary infrastructure connecting the existing onsite 110kV substation (within the Wind Farm Site) to the Clogher 110kV substation.
- The **'Permitted Development'** refers to the 19-turbine wind farm and ancillary infrastructure originally granted permission under ABP-300460-17 (and subsequent amendments) and included the Grid Connection under planning condition no. 1.
- The **'Existing Development'** refers to all works carried out to date for the Meenbog Wind Farm.
- The **'Prospective Development'** refers to all works necessary to complete construction, operate, and ultimately decommission the Meenbog Wind Farm.
- The **'Subject Development'** comprises both the Existing Development and the Prospective Development and shall be known as the Meenbog Wind Farm.
- The **'2017 EIAR'** refers to the original EIAR for the Permitted Development granted permission under ABP-300460-17
- The '**November 2020 Peat Slide**' means the peat slide or peat movement that occurred on 12th November 2020, at the Wind Farm Site.
- **'proposed turbines'** refers to the 19 no. proposed turbines associated with the Prospective Development

- **'proposed turbine locations'** refers to the 19 turbine locations associated with the Subject Development

This rEIAR, along with the EIAR, rNIS and NIS, accompanies the planning application for the Subject Development which will be made to the Commission. The rEIAR/EIAR and rNIS/NIS contain the information necessary for the Commission to complete the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) as required for this planning application.

For clarity in this rEIAR, all elements of the Existing Development will be assessed cumulatively and in combination with other projects to aid the Commission in carrying out an EIA.

The Wind Farm Site and the Grid Connection Site together comprise the primary rEIAR study area for the Existing Development. However, each chapter has its own study area for assessment purposes relevant to that topic which will be clearly identified in the relevant chapters. The primary rEIAR study area encompasses an area of approximately 901 hectares (ha). The as-built infrastructure footprint of the Existing Development measures approximately 32.6 ha (including the onsite 110kV substation which is located within the Wind Farm Site), which represents approximately 3.7 % of the Wind Farm Site (892 ha).

1.1.1 Applicant

Planree Ltd is an associated company of Enerco Energy Ltd., which is an Irish-owned, Cork-based company with extensive experience in the design, construction and operation of wind energy developments throughout Ireland, with projects currently operating or in construction in Counties Cork, Kerry, Limerick, Clare, Galway, Mayo and Donegal.

By the end of 2025, Enerco associated companies had over 975 Megawatts (MW) of wind generating capacity in commercial operation or in construction, with a further c.400MW of projects at various stages in its portfolio to assist in meeting Ireland's renewable energy targets.

1.1.2 Brief Description of the Subject Development

The Subject Development is comprised of two elements: the Existing Development and the Prospective Development. The Prospective Development, which is the subject of this EIAR is described in Section 1.1.3. For completeness the Prospective Development, which is the subject of a separate EIAR, is briefly described in Section 1.1.4 below. The Existing Development is described in detail in Chapter 4 (Description of the Existing Development) of this rEIAR.

1.1.3 Brief Description of the Existing Development

The Existing Development for which substitute consent is being sought consists of the retention of the following:

- Upgrading of access junctions, tracks and roads, and construction of new site access roads;
- 18 no. wind turbine foundations and hardstand areas at various stages of development;
- A 110kV Electrical substation with 2 no. control buildings (with a combined floor area of 398.1 sqm) with welfare facilities, associated electrical plant and apparatus, security fencing and underground wastewater holding tank;
- 110kV underground grid connection cabling (including joint bays, communication chambers, earth sheath links, and ancillary works along the underground electrical cabling route) connecting the wind farm 110kV substation to the Clogher Substation in the townland of Cullionboy. This cabling route is primarily located within the public road corridor;

- Internal wind farm underground cabling at various stages of development;
- 2no. temporary construction compounds (including 4 no. temporary site offices with a combined floor area of 66 sqm and 1 no. temporary security cabin with a floor area of 30.5 sqm);
- 3no. borrow pits;
- Peat and spoil management;
- Forestry felling;
- Site drainage and sediment control measures; and
- All associated site development works.

A detailed description of the Existing Development is provided in Chapter 4 of the rEIAR.

1.1.4 Brief Description of the Prospective Development

The Prospective Development refers to all works necessary to complete the Subject Development, as well as the operation of the Subject Development, and ultimate decommissioning of the Meenbog Wind Farm. The full description of the Prospective Development is detailed in Chapter 4 of this EIAR.

The Prospective Development will consist of the provision of the following :

- 19 no. wind turbines, with an overall tip height of 156.5m, rotor diameter of 133m, and wind turbine hub height of 90m, and 1 no. meteorological mast with a height of 80m, and subsequent decommissioning of the wind turbines and meteorological mast, following a twenty five-year operational period from the date of full commissioning of the wind farm;
- The completion of upgraded access junctions, tracks and roads, and construction of new site access roads;
- The completion of construction of all 19 no. wind turbine foundations and hardstand areas, and the construction of a meteorological mast foundation;
- Completion of internal wind farm underground ducting and cabling;
- Continued use of and upgrade of 2no. temporary construction compounds (including 3 no. temporary site offices with a combined floor area of 121.5 sqm);
- Continued use and extraction at the 3no. borrow pits;
- Peat and spoil management, including site landscaping;
- Forestry felling;
- Site drainage and sediment control measures;
- Biodiversity enhancement measures (including peatland habitat restoration and Hen Harrier habitat areas);
- Recreation and amenity works (including carpark, play, picnic & amenity areas and pedestrian access paths to the wind farm roads);
- Operational stage site signage; and
- All associated site development works.

Current and future wind turbine generator technology will ensure that the wind turbine model, chosen for the Prospective Development, will have an operational lifespan greater than the 25-year operational life that is being sought as part of the planning application.

1.1.5 Need for the Existing Development

The regularisation of the Existing Development together with the Prospective Development, are the key components of the Subject Development. The need for the Subject Development, and by extension the need for the Existing Development is discussed below.

Ireland faces significant challenges to its efforts to meet EU targets for renewable energy by 2030 and its commitment to transition to a low carbon economy by 2050. Further detail can be found in Ch. 2: Background and Policy.

The Subject Development provides the opportunity to capture an additional part of County Donegal's valuable renewable energy resource. If the Subject Development were not to proceed, this opportunity to harness the wind energy resource of County Donegal's valuable renewable energy resource would be lost, as would the opportunity to further contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions.

1.1.6 Economic Benefits

The Subject Development will have both long-term and short-term benefits for the local economy including income to local landowners, job creation, work opportunities for local businesses and service providers, local authority commercial rate payments, and a Community Benefit Scheme.

Commercial rate payments from the Subject Development will be provided to Donegal County Council each year during the construction phase, which will be redirected to the provision of public services within Co. Donegal. These services include provisions such as road upkeep, fire services, environmental protection, street lighting, footpath maintenance etc. along with other community and cultural support initiatives.

It is estimated that the Prospective Development has the potential to create up to 70 jobs during the construction phase and 2-3 jobs during operational and maintenance phases of the Subject Development. During construction, additional indirect employment will be created in the region through the supply of services and materials to the Prospective Development. There will also be income generated by local employment from the purchase of local services i.e. travel, goods and lodgings. Further details on employment associated with the Prospective Development are presented in in Ch. 5: Population and Human Health of this EIAR.

Should the planning application for the Subject Development be granted, there would be substantial opportunities available for the local area in the form of Community Benefit Funds. The applicant has given a commitment to a community benefit scheme based on a contribution of €1/MWh per annum over the lifespan of the project based on the current estimated generating capacity (91.2 MW) and an average capacity factor across 25-year lifespan. This will equate to potential funding of over €6 million to the local community which is a substantial contribution. The fund will support and facilitate projects and initiatives in the area.

1.1.7 Purpose and Scope of the rEIAR

The purpose of this rEIAR is to document the state of the environment prior to the commencement of the development on and in the vicinity of the Wind Farm Site and Grid Connection Site and to quantify the likely significant direct and indirect effects of the Existing Development on the environment. This document also identifies any mitigation measures that were put in place in order to protect the surrounding environment from the possibility of any negative impacts arising from the Existing Development.

It is important to distinguish the Remedial Environmental Impact Assessment (rEIA) is to be carried out by An Coimisiún Pleanála, from the rEIAR accompanying the planning application. The rEIA is the assessment carried out by the competent authority, i.e., An Coimisiún Pleanála, which includes an examination that identifies, describes and assesses in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 11 of the EIA Directive, the direct and indirect significant effects of the project on the following:

a) *population and human health*
a) *biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC*
b) *land, soil, water, air and climate*
c) *material assets, cultural heritage and the landscape*
d) *major accidents and natural disasters*
e) *the interaction between the factors referred to in points (a) to (e)*

This rEIAR provides the relevant environmental information to enable an rEIA to be carried out by the Commission relative to the Existing Development. The EIAR (for the Prospective Development) provides the relevant environmental information to enable an EIA to be carried out by the Commission. Together, these reports provide the relevant environmental information to allow the competent authority to carry out an Environmental Impact Assessment of the Subject Development. The information to be contained in the EIAR and rEIAR is prescribed in Article 5 of the revised EIA Directive described in Section 1.2 of the rEIAR.

1.2 Background to the Proposed Project

This chapter of the Remedial Environmental Impact Assessment Report ('rEIAR') presents information on the European, National, Regional and Local planning, climate change and renewable energy policies and targets related to the Subject Development (that includes the Existing Development) and should be read in conjunction with the Planning Report which accompanies the planning application. This chapter also sets out relevant planning history, summarises EIA scoping and consultations undertaken, and the cumulative impact assessment process. The Subject Development will be known as the 'Meenbog Wind Farm,' and is being progressed in response to local, regional, national and European policy regarding Ireland's transition to a low-carbon economy, associated climate change policy objectives and to reduce Ireland's dependence on imported fossil fuels for the production of electricity.

A gradual shift towards increasing Ireland's use of renewable energy is no longer viable. There is an urgency now to ensure real changes occur without delay. Renewable energy development is recognised as a vital component of Ireland's strategy to tackle the challenges of combating climate change and ensuring a secure supply of energy. Ireland is heavily dependent on the importation of fossil fuels to meet its energy needs. In 2023, over 81% of Ireland's energy was imported from abroad, higher than the European Union (EU) average of almost 60% (National Energy Security Framework, 2022). This high dependency on energy imports is highly risky, and Ireland is currently extremely vulnerable both in terms of meeting future energy needs and ensuring price stability. As such, expanding indigenous renewable energy supply is critical for energy security and price stability. The provision of the Subject Development would aid in achieving the shift to decarbonising the electricity sector and energy security in Ireland.

Ireland's Climate Action Plan 2024 and Climate Action Plan 2025 sets ambitious yet essential targets for renewable energy, including 9GW of onshore wind capacity—with at least 5GW to be delivered by 2030—and an 80% share of renewable electricity by the same year. However, multiple assessments, including the Climate Change Advisory Council (CCAC) Annual Review and the Environmental Protection Agency (EPA) emissions projections, confirm that Ireland is not on track to meet these targets. Significant gaps remain in renewable energy deployment, particularly in grid capacity

expansion, as well as onshore and offshore wind energy development, while continued reliance on fossil fuels threatens national and EU climate commitments.

Failure to meet binding EU targets will expose Ireland to financial penalties, increased carbon credit costs, and continued dependence on fossil fuel imports—posing serious risks to energy security and economic stability. Furthermore, Ireland's national interest, as outlined in Section 143(1) of the Act requires the rapid expansion of renewable energy, making this a matter of strategic economic and social importance.

Every viable renewable energy project plays a crucial role in meeting Ireland's climate targets. The approval of well-planned, appropriately located renewable energy projects, such as the Subject Development is not just beneficial—it is imperative. As the Subject Development is partially completed, it is uniquely positioned to contribute to the 2030 target for onshore wind capacity. Without decisive action to facilitate renewable energy deployment, Ireland risks missing national and EU commitments, incurring financial penalties, and undermining energy security.

Local Planning Policy

It is considered that the Subject Development is consistent with the policies and objectives of the Adopted Donegal County Development Plan 2024-2030.

Donegal County Development Plan 2024-2030

The Donegal County Development Plan 2024 – 2030 (DCDP) came into effect on 26th June 2024. The DCDP is the statutory county development plan in effect for the County and provides the framework against which all planning applications for development in the county are assessed. The policies and objectives set out within the DCDP have maintained strong linkages with the key aims and themes set out within the previous development plan. Climate change is again emphasised as one of the greatest global challenges, with DCC acknowledging that continual action is needed for Donegal to become a low carbon and climate resilient county.

The importance of climate action is outlined in 'Chapter 4: Climate Change' of the DCDP as it states-

> *"The Development Plan has an important role to play in the achievement of the national and international objectives. It can do so by both supporting development that helps to mitigate climate change (e.g. renewable energy) and ensuring that development adapts to the effects of climate change (e.g. ensuring that vulnerable developments are not allowed to proceed in flood risk areas)."*

There are a number of Policy Objectives relating to renewable energy, including the following:

- ***E-O-1*** *- To sustainably develop a diverse and secure renewable energy supply to meet demands and capitalize on the County's competitive locational advantage.*
- ***E-O-2*** *- To secure the maximum potential from the wind energy resources of the County commensurate with the receiving environment and local developments patterns consistent with the proper planning and sustainable development, thereby contributing to the national drive towards ensuring the security of energy supply.*

There are a number of policies relating to wind energy, including the following:

- ***WE-P-1*** *- That the principle of the acceptability or otherwise of proposed wind farm developments shall be generally determined in accordance with the three areas identified in Map 9.2.1 'Wind Energy' and as detailed below:*
  a. ***Acceptable in Principle*** *Wind energy development shall be generally acceptable in these areas.*

*b. **Open to Consideration** Wind energy development shall be generally open to consideration in these areas.*
*c. **Not Normally Permissible** Windfarm development proposals on previously undeveloped sites, inclusive of sites with a lapsed un-implemented permission (and where substantive works have not been undertaken) will not normally be permissible.*

- ***WE-P-1A** - The augmentation, upgrade, repowering and improvements of: existing windfarms; windfarm developments under construction; developments where permission has lapsed but substantial works have been completed, or on sites with an extant planning permission will be open to consideration in all three designated areas ('Not Normally Permissible', 'Open to Consideration', and 'Acceptable in principle') on Map 9.2.1 where such proposals shall be generally confined to the planning unit of the existing development, or where a modestly-proportioned projection (relative to the established unit) beyond the established site can be demonstrated to be essential and unavoidable for the project in terms of operational efficiencies, and can demonstrate beyond reasonable doubt that all environmental issues can be adequately addressed.*
- DCDP acknowledges the strong planning history of wind farm developments in certain areas designated as 'Not Normally Permissible' and provides for the consideration of proposals involving the augmentation, upgrade, and improvement of such developments within these areas. While the Subject Development is currently located within an area designated as 'Not Normally Permissible', the project is considered open to consideration under the current policy framework, as the development is under construction. Planning permission for the Meenbog Wind Farm was granted in June 2018 (ABP Ref: PA05E.300460), and substantive works have since been completed on the Site, as outlined in Section 2.1 of the Remedial Environmental Impact Assessment Report (rEIAR) accompanying this application. Accordingly, the proposed development is considered to align with the provisions of the DCDP. It is also noted that, at the time planning permission was granted on 25 June 2018 for the permitted Meenbog Wind Farm (ABP Ref: PA05E.300460), the lands were designated as 'Open to Consideration' under the Donegal County Development Plan 2012–2018. ***WE-P-2** - That wind farm developments:*
a. Must not be located within the zone of visual influence of Glenveagh National Park;
b. Must not be located within the following areas, subject to the possible exceptions set out in Policy WE-P-1A:
i. the Gweebarra River Basin;
ii. areas contained within 'Especially High Scenic Amenity' on Map 11.1 'Scenic Amenity' and iii. St. John's Point.
- ***WE-P-3** - To ensure that the assessment of wind energy development proposals will have regard to the following:*
a. sensitivities of the county's landscapes;
b. visual impact on protected views, prospects, designated landscapes, as well as local visual impacts;
c. impacts on nature conservation designations, archaeological areas, county geological sites, historic structures, public rights of way and walking routes;
d. local environmental impacts, including those on residential properties, such as noise, shadow flicker and over-dominance;
e. visual and environmental impacts of associated development, such as access roads, plant and grid connections from the proposed wind farm to the electricity transmission network;
f. scale, size and layout of the project and any cumulative effects due to other projects;
g. the impact of the proposed development on protected bird and mammal species;
h. the requirements and standards set out in the DEHLG Wind Energy Development Guidelines 2006, or any subsequent related Guidelines (or as may be amended).
i. 'The Planning System and Flood Risk Management, Guidelines for Planning Authorities (2009)'; and
j. the protection of drinking water sources and public water services infrastructure.
In addition, all applications for wind farm development located on peatland and bog, including repowering and augmentation projects, shall be accompanied by a 'Peat Stability Risk Assessment Report'.

- ***WE-P-4*** *- To support and facilitate, appropriate on site wind energy development by auto producers/micro producers (see definitions below) where energy generated is primarily required to meet the immediate needs of the development, whether community/ agricultural and/or small enterprise, subject to compliance with all other relevant objectives and policies contained within this plan. The Wind Energy Map 9.2.1 does not restrict the location of turbines for the purposes of auto-production.*
- ***WE-P-5*** *- To ensure that all roads associated with the Development of wind farms are maintained or repaired at the developer's expense to the satisfaction of the Council.*
- ***WE-P-6*** *- To ensure that all windfarm development proposals demonstrate how the proposed development will be of enduring economic benefit to the communities concerned, through a form of community investment/ownership, benefit or dividend, or similar.*
- ***WE-P-7*** *- To ensure that the decommissioning, post-operational restoration and restoration of habitats of redundant windfarm developments is achievable and practical once a wind energy development ceases to generate electricity.*
- ***WE-P-8*** *- To ensure that the assessment of Wind Energy Development Proposals have regard to the following Specific Biodiversity Related Requirement:*

  A. Loss of functionally linked habitat: Developers of wind energy proposals on greenfield sites shall undertake a preconstruction appraisal of habitats. Should habitats suitable for supporting Special Conservation Interest bird species be present, developers will be required to undertake pre-construction bird surveys to confirm whether the site supports a significant proportion of bird populations (typically taken to be 1% of the population of a SPA, at time of designation). Depending on whether qualifying birds represent breeding or overwintering species, surveys will need to be undertaken in the breeding season or overwintering period (October to March). If a site represents functionally linked habitat, avoidance / mitigation measures will be required and the proposal will need to be supported by a bespoke Appropriate Assessment.

  b. *Mortality due to collision with operational wind turbines: Wind energy development proposals shall demonstrate that they can be delivered without resulting in adverse effects on the integrity of European sites. Vantage point surveys will be required to establish:*
  (i) the overall use of the development site by Special Conservation Interest birds and
  (ii) more detailed usage by Special Conservation Interest birds of the turbine swept area taking account of specifications such as turbine height, blade length, nacelle (blade hub) rotation speed and the number of turbines. Mitigation measures may need to be delivered to ensure that any residual risks are appropriately avoided or reduced.

  c. Disturbance displacement: To avoid potential permanent disturbance displacement impacts on Special Conservation Interest bird species, Donegal County Council will generally not support wind energy proposals within 1km of Special Protection Areas unless clear evidence from the applicant or scheme promoter can demonstrate no adverse effect on site integrity will arise.

  d. Water Quality: Any wind energy developments within 1 km of sensitive SPAs / SACs shall ensure that potential adverse impacts on the European sites due to water quality impacts are assessed and, where required, mitigated. Mitigation measures include, but are not limited to, water quality and ecological baseline studies, run-off / leachate modelling, delivery of Construction Environmental Management Plans (CEMPs) and Water Management Plans (WMPs) and compliance with industry good practice.

Donegal County Council Climate Action Plan 2024-2029

The Donegal County Council Local Authority Climate Action Plan 2024-2029 (Donegal LACAP), published in February 2024, sets out DCC's intentions to create a low carbon and climate resilient County. It also aligns itself with international and national policy regarding climate action, highlighting the Climate Act and Ireland's legally binding target of a 51% reduction in GHG emissions by 2030.

The main vision of the Plan is "To be a Climate Resilient, Biodiversity Rich, Environmentally Sustainable and Carbon Neutral Donegal by no later than the end of 2050."

The Donegal CAP is divided into several sections, setting out their scope and ambition of the LACAP, relative to national legally binding targets. Objectives and Actions within Galway's CAP clearly set out the Council's intentions to reduce GHG emissions within the electricity sector through the development of renewable energy infrastructure projects. These include:

- **BE 4.3 –** Prepare an overall Renewable Energy Strategy for the County.
- **BE 4.4 -** Support local community-based renewable energy projects and new micro-generation and small-scale generation renewable energy projects.
- **BE 4.5 -** Advocate for the ongoing expansion and improvements to the electricity grid infrastructure within the County to support renewable generation and supply.
- **BE 4.6 -** Work with key partners and stakeholders to support the Development of the offshore renewable energy sector in Donegal.

Derry City and Strabane Local Development Plan 2032

The Derry City and Strabane Local Development Plan 2032 was adopted on the 10th July 2025. The Local Development Plan highlights the District's strong potential for renewable energy from wind, hydro, biomass, and solar power. These energy sources help provide a sustainable supply of electricity for local homes and businesses while supporting green energy generation across Ireland. The District is already a leading producer of renewable energy in Northern Ireland, reflecting the Council's commitment to expanding clean energy and helping meet long-term carbon reduction and renewable electricity targets.

Relating specifically to Wind Energy Development, the LDP sets out that proposals for wind energy development, including proposals for repowering of existing developments, will also be required to meet all of the following criteria:

- the development will not have an unacceptable impact on visual amenity or landscape character through: the number, scale, size and siting of turbines
- it is demonstrated that development will not create a significant risk of landslide or bog burst; nor will it exacerbate any existing surface water flooding
- no part of the development will give rise to unacceptable electromagnetic interference to communications installations; radar or air traffic control systems; emergency services communications; or other telecommunication systems;
- no part of the development will have an unacceptable impact on roads, rail or aviation safety.
- turbines proximate to any public road, public right of way or railway line are set back a minimum distance of the fall over distance plus 10% from the edge of same.
- turbines proximate to any occupied or occupiable buildings are set back a minimum distance of the fall over distance plus 10% from the curtilage of same;
- the development will not cause significant harm to the safety or amenity of any sensitive receptors (including future occupants of committed developments) arising from noise; shadow flicker; ice throw; and reflected light; and
- above-ground redundant plant (including turbines), buildings and associated infrastructure shall be removed and the site restored to an agreed standard appropriate to its location. A time limit condition of 30 years will normally be attached.

Planning History

A planning search was carried out through the national planning application database and An Coimisiún Pleanála's online planning portal in June 2026. This was undertaken to search for planning applications that have been submitted for planning and that of which fall within the planning application boundary of the Subject Development.

A planning search was carried out to establish existing, permitted and proposed wind energy developments within 20km of the proposed turbines for the purposes of informing the potential cumulative effects. The search was carried out using the relevant local authority planning portal and An Coimisiún Pleanála's portal in June 2026 for relevant planning applications.

Scoping and Consultation

Section 2.8 of this rEIAR presents details of the EIA Scoping undertaken with regards to the Subject Development. A scoping letter, providing details of the Subject Development, was prepared by MKO and circulated in September 2025. The scoping document was circulated again in March 2026, as a follow up to the relevant bodies who had yet to respond. The scoping letter provided details of the Subject Development and set out the scope of work for the EIAR and rEIAR. Consultees were invited to contribute to the EIAR and rEIAR by suggesting baseline data, survey techniques and potential impacts that should be considered as part of the assessment process and in the preparation of the EIAR and rEIAR.

Copies of all scoping responses received are included in Appendix 2-2 of this rEIAR. The recommendations of the consultees have informed the scope of the assessments undertaken and the contents of this rEIAR. The responses received were fully considered and issues raised were followed up through contact with the respondent where clarification was necessary and addressed throughout this rEIAR.

Section 2.8.4 of this rEIAR includes details of the pre-planning meetings undertaken prior to the planning application being lodged. Members of the project team and the Applicant met with representatives of the Commission held at the offices of the Commission on the 19th February 2025 and a second meeting was held with the Commission on the 7th January 2026.

In addition to this a meeting was held with Donegal County Council (DCC) via Microsoft (MS) Teams on the 10th February 2026. In addition, a meeting was held with the Loughs Agency via MS Teams on the 16th January 2026.

The outcomes of all these consultations have been duly considered and integrated into the design of the Subject Development and the preparation of the rEIAR.

Cumulative Impact Assessment

The EIA Directive and associated guidance documents state that as well as considering any direct, indirect, secondary, transboundary, short, medium-, and long term, permanent and temporary, positive and negative effects of the project the description of likely significant effects should include an assessment of cumulative impacts that may arise.

To gather a comprehensive view of cumulative impacts on these environmental considerations and to inform the rEIAR process being undertaken by the consenting authority, each relevant chapter within this rEIAR includes a cumulative impact assessment where appropriate.

A cumulative project search has been carried out. The information was gathered through a search of relevant online Planning Registers, reviews of relevant EIAR (or historical EIS) documents, planning application details and planning drawings, and served to identify past and future projects, their activities and their environmental impacts. These projects are summarised in Appendix 2-1.

In the first instance, an assessment of potential cumulative effects between the Existing Development and other relevant plans and projects has been undertaken in chapters 5 to 16 for the purposes of identifying what influence the Existing Development has had on the surrounding environment when considered cumulatively with relevant plans, projects and other land uses in the vicinity. Following this, an assessment of the identified environmental effects of the Existing Development, in cumulation with

the anticipated environmental effects of the Prospective Development, has been undertaken in each relevant chapter. This provides a summary of the environmental effects of the Subject Development.

Finally, an assessment of potential cumulative effects of the Subject Development with other relevant plans, projects and land uses has been carried out for the purpose of identifying what influence the Subject Development could potentially have, on the surrounding environment when considered cumulatively and in combination with relevant plans, projects and other land uses in the vicinity of the site.

To gather a comprehensive view of cumulative impacts within the cumulative study area for the Prospective Development and to inform the EIA process being undertaken by the consenting authority, each relevant chapter within the rEIAR addresses the potential for cumulative effects where appropriate and within the context of their identified cumulative study area. A list of projects considered (i.e. the largest cumulative study boundary of catchments) across all disciplines in their cumulative impact assessment is included in Appendix 2-1.

Overall, the Existing Development has been designed to mitigate impacts on the environment and particularly water, and a suite of mitigation measures is set out within the rEIAR. Additional detail in relation to the potential significant cumulative effects that may have arisen, will arise and, where appropriate, the specific suite of relevant mitigation measures is set out within each of the relevant chapters of this rEIAR.

1.3 Consideration of Reasonable Alternatives

Ch. 3: Consideration of Reasonable Alternatives of the rEIAR contains a description of the reasonable alternatives that were studied by the developer, which are relevant to the Existing Development and the Subject Development. It provides an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects. The consideration of alternatives is an effective means of avoiding environmental impacts.

Alternative BMEP Areas

The selection of the proposed biodiversity management and enhancement areas within the Site was an iterative process and has evolved from the original enhancement areas selected in the 2017 EIAR to the current, preferred BMEP Site. The BMEP Site, refers to the areas of the Site to be enhanced for hen harrier habitat and peatland habitat. The BMEP provides a comprehensive plan for the conversion of approximately 108 hectares of coniferous forestry to peatland and scrub habitats. The BMEP has been designed to create approximately the same amount of permanent foraging habitat for hen harrier as will potentially be lost by the Prospective Development. It is recognised that anything that benefits potential prey species is of benefit to the hen harrier. The BMEP (following this principle) aims to provide an increase in the availability of passerine prey within restoration areas. The BMEP will also include the restoration of approximately 6.2 hectares of blanket bog on a flat section of the felled area with relatively deep and wet peat. This will provide approximately twice as much blanket bog habitat as has been lost or degraded by the Existing Development and the November 2020 peat slide combined.

During the site selection process for the BMEP Site, the preference was for larger, more continuous blocks of forestry within a suitable distance from the Wind Farm Site, that could achieve the objectives of the BMEP.

The land selection for the BMEP Site was based on knowledge of hen harrier use of the area, as well as the current baseline condition of the land and its potential to be of value to hen harrier.

Alternative Amenity Design

The identification of the amenity area and walkways locations within the Site was an iterative design process and has evolved from the original amenity design selected in the 2017 EIAR to the current, preferred amenity design.

Alternative Met Mast Location

The identification of the meteorological (met) mast design within the Wind Farm Site was an iterative design process and has evolved from the original design selected in the 2017 EIAR to the chosen option for the Prospective Development. Furthermore, the overall height of the met mast was reduced from 110 m to 80 m.

Consideration of Alternatives

This section considers reasonable alternatives for the regularisation of the Existing Development and completing the Prospective Development which is in effect the implementation of the Subject Development.

The three alternatives considered are:

- **Alternative 1 – "Do-Nothing".** Substitute Consent not granted. Existing Development remains *in situ* as an unauthorised development.
- **Alternative 2 – Decommissioning of Existing Development.** Substitute Consent not granted. Orders made to remove unauthorised development and restore site to the greatest extent practicable. Under this scenario access tracks would most likely remain in-situ for forestry/ agricultural use and the 110kV substation and grid connection would be de-energised, secured, remain in-situ pending further planning application to retain them.
- **Alternative 3 – Retain Existing Development and Complete the Prospective Development (Preferred Alternative).** Retain and regularise all existing infrastructure as constructed, and complete and operate the Subject Development.

Alternative 1 - 'Do-Nothing'

The 'Do-Nothing' alternative is an alternative scenario to retaining and regularising the Existing Development. In this scenario, the Existing Development will remain in-situ as an unauthorised and partially completed wind farm, which is, in effect, the "Do-Nothing" alternative insofar as it represents the current situation as at the date of the application for Substitute Consent.

There would be no direct negative environmental effects as a result of implementing the "Do-Nothing" alternative. However, by implementing this 'Do-Nothing' alternative, the opportunity to capture a significant part of the country's renewable energy resource by completing the Meenbog Wind Farm (subject to appropriate planning consents) would be lost, as would the opportunity to contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions. The opportunity to generate local employment, local authority development contributions, rates and investment in the local area would also be lost. Furthermore, the opportunity to implement the proposed biodiversity enhancement measures would be lost.

For the reasons set out above, the proposal for a wind energy development at the Site was progressed over a Do-Nothing Scenario despite the potential environmental effects. By regularising the Existing Development and progressing the Prospective Development, there is an opportunity to enhance

employment and investment in the local area and to capture the available renewable energy resource within County Donegal, thus contributing to meeting national and international climate targets.

Alternative 2 –Decommissioning of Existing Development

For the purposes of this EIAR an alternative has been considered where the Existing Development is required to be removed and the Wind Farm Site and Grid Connection Site remediated to the greatest extent practicable, **notwithstanding the fact that other options may exist or emerge to address the planning status of the Existing Development.**

Alternative 2 represents a scenario where substitute consent is not granted for the Existing Development and an order is made to remove and/or remediate, in part or in full unauthorised development at the Site which has taken place since 2019.

This alternative would involve significant civil engineering works to remove development from the Wind Farm Site and Grid Connection Site. It is likely that demolition and removal of the concrete foundations would be carried out mechanically using hydraulic excavators, rock breakers and earthmoving transport vehicles similar to the equipment that was used during the construction of the Existing Development.

This alternative would lead to significant environmental effects due to the extensive groundworks required to remove and restore the existing foundations, peat cells, and hardstands. The borrow pits which form part of the Existing Development would be backfilled to the greatest extent possible with spoil and peat and revegetated. The peat cells which form part of the Existing Development would be dismantled and the stored peat material used for restoration of roads and hardstands if suitable or removed from the Wind Farm Site for disposal in a licenced waste facility.

Alternative 3 – Retain Existing Development and Complete the Prospective Development (Preferred Alternative)

Under this alternative the Existing Development would be retained in its current configuration and the Prospective Development would be completed as described in this EIAR. A detailed description of the Subject Development is provided in Chapter 4 of the rEIAR (Existing Development) and Chapter 4 of this EIAR (Prospective Development). Together, the rEIAR and EIAR which accompany the planning application for the Subject Development provide a comprehensive assessment of the potential effects of the Subject Development on the receiving environment.

An assessment of potential effects of the Subject Development concluded that whilst temporary significant effects on aquatic habitats and species (brown trout) were identified as a result of the November 2020 Peat Slide, no ongoing or residual effects resulting from the Existing Development were identified. The assessment found that the Prospective Development does have the potential to result in significant effects on the aquatic environment.

Under Alternative 3, additional habitat restoration/rehabilitation and hen harrier habitat enhancement measures would be undertaken at the Site. This plan would offset the loss of habitats identified within the Site and further enhance the biodiversity of the Site and its environs.

The preferred alternative of consenting the Subject Development will have direct positive climate effects through enabling the production of renewable energy at the Site, reducing greenhouse gas emissions and aid in meeting local, regional, national and European targets. The preferred scenario will also have a direct positive ecological effect through the provision of additional biodiversity restoration/rehabilitation and enhancement measures. There would likely be imperceptible negative effects on air and climate as a result of emissions from construction vehicles required to complete construction of the Subject Development. Once operational, the Meenbog Wind Farm will have significant indirect positive climate effects through reducing greenhouse gas emissions.

1.4 Description of the Existing Development

This chapter of the rEIAR describes the Existing Development and its component parts which is part of an application to An Coimisiún Pleanála (ACP) for Substitute Consent under Section 177E of the Planning and Development Act 2000 (as amended) ('the Act') by Planree Ltd. ('the Applicant'), for the Subject Development.

Substitute consent is being sought for the Subject Development. The substitute consent application seeks to regularise the Existing Development and seeks permission for the Prospective Development.

This section describes the Existing Development, encompassing all works carried out at the Wind Farm Site and Grid Connection Site since November 2019 to date.

The Site, which comprises three distinct elements – the Wind Farm Site, the Grid Connection Site, and the BMEP Site, measures approximately 1,018 hectares (ha) within the townlands of Meenbog, Croaghonagh, Ardinawark, Keadew Upper, Keadew Lower, Cullionboy, Cashelnavean, Tawnawully Mountains, Friarsbush and Tievecloghoge, as described in Chapter 1 Introduction of this rEIAR, and briefly below. Please note that no activities associated with the Existing Development occurred within the BMEP Site and therefore this site is not discussed further in this rEIAR.

Construction work commenced at the Wind Farm Site and Grid Connection Site in November 2019. The majority of the civil engineering works, including wind farm access roads, turbine hardstands, turbine foundations, borrow pits and peat cells, were substantially completed over a 12-month period up to November 2020. Works on the electricity substation and associated underground cabling connection to the grid continued until the second quarter of 2021. Construction work resumed briefly between July 2022 and September 2022, during which some additional works were carried out on site roads, internal site ducting, hardstanding areas, borrow pits, and peat cells.

The Wind Farm Site, which refers to the area of the Site surrounding the wind turbines and associated infrastructure (including the onsite 110kV substation) from the wind farm site entrance off the N15 National Road (N15), is located in County Donegal, approximately 8 km southwest of the twin towns of Ballybofey and Stranorlar and approximately 12 km northeast of Donegal Town.

The Wind Farm Site measures approximately 892 ha, within the townlands of Meenbog and Croaghonagh. The Wind Farm Site borders County Tyrone in Northern Ireland, specifically the administrative division of Omagh West, Barony of Termonamongan and the townlands of Slievdoo, Meenakeeran, and Sixth Corgary or Second Croagh along the Southeast of the Wind Farm Site boundary. The Wind Farm Site lies within four Electoral Divisions (EDs); Goland, Dooish, Tawnawully and Clogher, in County Donegal. Current land-use at the Wind Farm Site is comprised of the partially constructed Meenbog Wind Farm and areas of commercial forestry and blanket bog. The surrounding land-use predominantly comprises peat bogs, commercial forestry and other seminatural areas with limited residential use along local roads, as well as a quarry adjacent to the Wind Farm Site entrance off the N15 National Road.

The Grid Connection Site has a total area of approximately 9 ha and extends from the Wind Farm Site entrance along the N15 National Road to the L-2595 Local Road, then proceeds to the L-1985 Local Road where it travels east along the road and through agricultural lands parallel to the local road before continuing along the L-19852 Local Road and finally following a private road to reach the Clogher 110kV substation.

The Clogher 110kV electrical substation is situated approximately 6.5 km southwest of the on-site 110kV electrical substation. The Grid Connection Site traverses the townlands of Ardinawark, Keadew Upper, Keadew Lower, Cullionboy, Cashelnavean, Tawnawully Mountains and Friarsbush.

Access to the Wind Farm Site is from the west via an existing main Wind Farm Site entrance off N15 approximately 8 km southwest of Ballybofey. There is a secondary Wind Farm Site entrance from the local road (L-6554) to the north of the Wind Farm Site. This entrance was used as a staff entrance for workers accessing the northern portion of the Wind Farm Site.

A total of 14 no. of wind turbine foundations (where concrete has been poured) have been completed or predominantly completed, with 2 no. additional foundations prepared with the steel reinforcement and anchor cage in place, and a further 2 no. foundations excavated.

The Existing Development includes 18 no. substantially completed or partially completed hardstanding areas. The hardstanding areas consisting of levelled and compacted hardcore are typically used to facilitate access, turbine assembly and turbine erection. The hardstand areas are used to accommodate cranes used in the assembly and erection of the turbine, offloading and storage of turbine components, and generally provide a safe, level working area around each turbine position. Approximately 19 km of existing access roads are present across the Wind Farm Site and have been in operation for a number of years. To provide access within the Wind Farm Site of the Existing Development, existing forestry roads and tracks were upgraded, and additional new access roads were constructed. Approximately 4.1 km of existing solid road was upgraded and approximately 8.9 km of existing floating forestry tracks were upgraded to solid roads. A total of 3 km of new solid roads were installed at the Wind Farm Site, along with approximately 3 km of new floating roads.

Where existing roads were upgraded, the work included widening of the roadway to a minimum running width of 5m. The design of the access roads had regard to key factors as identified in the *Peat and Spoil Management Plan* which was prepared by Applied Ground Engineering Consultants Ltd. (AGEC) as part of the 2017 EIAR for the Permitted Development and included in Appendix 4-2. Design factors were as follows:

1. *Buildability considerations*
2. *Serviceability requirements for construction and wind turbine delivery and maintenance vehicles*
3. *Minimise excavation arisings*
4. *Requirement to minimise disruption to peat hydrology*

A clear-span bridge was constructed over the Bunadaowen River within the Wind Farm Site. The bridge crossing forms part of the internal site road network and is located on the main spine road that runs from the site entrance to the northeastern side of the Wind Farm Site. The crossing location is at ITM X 607622, Y 887145, and the design avoided the need for in-stream works. The bridge was constructed to widen a pre-existing box culvert crossing of the Bunadaowen River.

As part of the Existing Development, 3 no. borrow pits were established within the Wind Farm Site. The purpose of a borrow pit is to win hardcore material required for the construction of the wind farm infrastructure, namely access roads, turbine foundations and hardstands. The use of borrow pits located within the Wind Farm Site minimised the need for transport of material from external quarries.

During the construction of the Existing Development, a number of rock extraction methods were employed, depending on the ground conditions encountered across the Wind Farm Site. These methods included rock breaking using hydraulic excavators fitted with breaker attachments, and controlled rock blasting where rock could not be removed through excavation and rock breaking methods alone. Extracted rock material was processed and reused where suitable for construction purposes.

Approximately 6 km of the underground cabling ducting has been installed within the Wind Farm Site as indicated in **Error! Reference source not found.**. The route of the cable ducts generally follows the a ccess tracks to each turbine location. Cable ducts are approximately 1.2m below the ground level and located within or beside founded roadways. In floating roads, the cable ducting is installed on the shoulder of the road with a berm providing the necessary cover over the cable ducting.

A total of 2 no. temporary construction compounds were constructed as part of the Existing Development. Construction compound No. 1 is located between the on-site 110kV electrical substation and the wind farm access road. This temporary construction compound consisted of temporary site offices, staff facilities and car-parking areas for staff and visitors, however only one security cabin currently exists at this compound. Construction Compound No. 2 is located in a layby adjacent to the wind farm main spine road approximately 150m southwest of the road to T10. This temporary construction compound included offices and welfare facilities set up centrally on-site where a natural widening existed along main spine road.

The majority of the Wind Farm Site comprises a commercial coniferous forestry plantation. As part of the works for the Existing Development, tree felling was required within and around the development footprint to allow the construction of turbine bases, access roads, and other ancillary infrastructure. A total of 73.33 ha of forestry has been felled as part of the Existing Development at the Wind Farm Site. Of this, 66.57 ha comprises permanent felling, while 6.76 ha relates to temporary felling.

A total of 7.66 ha was replanted within the Wind Farm Site. In addition, a total of 58.91 ha of permanent felling was replanted off-site under licence to replace the forestry felled as part of the Existing Development, in accordance with requirements set by the Forest Service. These off-site replanted areas are located in various locations in the Republic of Ireland, outside of Co. Donegal. As a result, there is no potential for interactions between the replanted forestry and the Existing Development.

Approximately 450,900 m3 of peat and spoil was excavated during the construction of the Existing Development. This total includes material excavated from site roads, turbine foundation, hardstands, the 110kVelectrical substation site, and a small amount of peat recovered as part of the emergency works undertaken in response to the November 2020 Peat Slide. Peat and spoil generated from the Existing Development was deposited in a number of peat cells, used to restore borrow pits, and side-cast in appropriate locations around the Wind Farm Site.

A number of peat cells were created as part of the Existing Development. Peat cells were required for the management of peat arising from excavation during construction of the Existing Development. The peat cells were designed to safely contain peat extracted from turbine foundations, road construction and other civil engineering Since the cessation of peat placement in the peat cells, the surface of the deposited peat has revegetated with species including soft rush (*Juncus effusus*), Yorkshire fog (*Holcus lanatus*), creeping bent grass (*Agrostis stolonifera*) and tormentil (*Potentilla erecta*).

Some peat and spoil excavated on-site was side cast adjacent to the wind farm infrastructure at various locations across the Wind Farm Site. Side cast peat is generally less than 1m in depth. The stability of areas of side cast peat is assessed in the Retrospective Peat Stability Assessment Report for the Existing Development which is provided as Appendix 8-1 to this rEIAR.

An on-site 110kV electrical substation was constructed within the Wind Farm Site. The on-site electrical substation compound measures approximately 116m in overall length and 95m in overall width, and includes 2 no. control buildings along with the electrical components necessary to consolidate the electrical energy generated by each wind turbine and export that electricity from the on-site 110kV electrical substation to the national grid via underground electrical cabling. The electrical equipment in the on-site 110kV electrical substation was installed in line with Eirgrid/ESB Networks specifications. The on-site 110kV electrical substation compound is surrounded by steel palisade fencing approximately 2.6m high, as well as internal fences which segregate elements within the main substation. Two wind farm control buildings are located within the substation compound. The Independent Power Producer (IPP) Control Building measures 19m x 11m and 7m in height, located at the south eastern side of the substation compound. The EirGrid Control Building measures 25m x 18m by 8.5m in height, located towards the centre of the substation compound.

The on-site 110kV electrical substation is connected to the national grid via underground cabling connection to the existing Clogher 110kV electrical substation, located in the townland of Cullionboy,

Co. Donegal. The Grid Connection extends from the on-site 110kV electrical substation at Croaghonagh and runs northwest along private road for approximately 1.7 km to the Wind Farm Site entrance. It then runs southwest along the N15 for approximately 5.7 km, southwest along the L-2595 running for approximately 1.1 km before continuing southeast through agricultural fields alongside the L-1985 for approximately 425m. The grid connection cabling then continues southeast along the L-19852 for approximately 210m until running west along a private road for 495m in the townland of Cullionboy to the Clogher 110kV electrical substation. A small agricultural building to the north of the L-1985 was relocated as part of the grid connection works.

The Wind Farm Site is extensively drained by a network of natural watercourses and manmade land drains. Several watercourse crossings were constructed/upgraded as part of the Existing Development. All new culverts and culvert upgrades at field drain crossings installed as part of the Existing Development were suitably sized for the expected peak flows in the relevant drain. Some culverts were installed to manage drainage waters from works areas of the Existing Development, particularly where the waters had to be taken from one side of a roadway to the other for discharge.

Elements of the Existing Development were constructed in response to peat movements that occurred during the construction of the Existing Development. A berm was constructed to the south of T8 as a peat containment safety measure prior to the construction of T8 (ITM Coordinates X 6072522, Y 885562). The berm was extended from stable ground on the east side and continued to just beyond the turbine foundation at the west side. This berm is located on the uphill side of T8 spur road, hardstand and foundation. The containment berm was constructed in July 2020 in response to a peat movement that occurred upslope from T8, preventing further movement. The berm is approximately 250m long and 21m wide at the base.

In November 2020 a peat slide occurred during the construction of an access road to T7. Works in response to the peat slide were undertaken under the supervision of on-site engineers Ionic Consulting (Ionic). The immediate response to the peat slide (emergency works) included the construction of 3 no barrage walls.

Barrage Wall No. 1 which is located northeast of T9 was constructed in the immediate aftermath of the peat slide, within 72 hours of the event. The primary aim of Barrage Wall No. 1 was to limit or prevent the flow of liquefied peat into watercourses beyond the Site.

Barrage Wall No. 2 was located to the immediate west of T9 and was the last of the three barrage walls to be constructed, once the slide area above Barrage Walls 1 and 3 had been stabilised. This wall was constructed to keep peat in this area from moving further downstream and to facilitate the removal of peat from the Shruhangarve Stream.

Barrage Wall No. 3 is located along the T7 spur road and immediately downslope of an area of peat which was identified as posing significant risk of further peat movement. The purpose of Barrage Wall No. 3 was to stabilise water laden upslope material and prevent potential flow downslope.

1.5 Population and Human Health

This chapter assesses the significant effects that the Existing Development had on Population and Human Health and details the mitigation measures which were implemented to avoid, reduce or offset any significant effects on the receiving environment.

In order to assess the population in the vicinity of the Wind Farm Site and Grid Connection Site, the 'Population Study Area' was defined in terms of Electoral Divisions (EDs). The Wind Farm Site and Grid Connection Site lies within 4 no. EDs: Goland, Clogher, Tawnawully. The Population Study Area has a population of 2,807 persons as of 2022.

There is 1 no. property located within 250m of the Wind Farm Site infrastructure, this dwelling is currently unoccupied and remained unoccupied throughout the construction of the Existing Development. The closest inhabitable property, belonging to an involved landowner, is located over 750m from the nearest proposed turbine (T17) (which is partially complete as part of the Existing Development works). There are 42 no. receptors identified within a 250m buffer of the Grid Connection Site, with the closest receptor being 7 m from the Grid Connection route.

The design and construction of the Existing Development provided employment for technical consultants and contractors. The construction of the Existing Development employed approximately 80 workers. During the construction phase of the Existing Development, an influx of skilled people in the area brought specialist skills that resulted in the transfer of skills into the local workforce, thereby having a long-term, slight, positive, indirect effect on the local skills base. Up-skilling and training of local staff in the particular requirements of the wind energy industry likely led to additional opportunities for those staff as additional wind farms are constructed in Ireland. The injection of money in the form of salaries and wages to those employed during the construction of the Existing Development resulted in an increase in household spending and demand for goods and services in the local area.

The Existing Development (excluding the constructed substation) is not visible from outside the Wind Farm Site and Grid Connection Site and has not significantly altered the land use of the Wind Farm Site and Grid Connection Site, comprising the partially constructed Meenbog Wind Farm, areas of commercial forestry and blanket bog, and public roadways. It is therefore a reasonable assumption that the Existing Development has not and will not impact on the property values in the area.

The impact assessment undertaken in Chapter 5 Population and Human Health concludes that the residual effects on population levels, land use patterns, tourism, property values, residential amenity during the construction of the Existing Development is Not Significant.

There are no underground water or sewerage networks within the Wind Farm Site. There is a water mains pipeline, including several associated hydrants and valves, that runs along a section of the N15 to the L-2595 junction where a different section of pipeline continues along this road, passing the junction leading to Clogher Substation. As such, these pipelines fall within the Grid Connection Site. There are no mapped Drinking Water Protected Areas (DWPA) within or immediately downstream of the Wind Farm Site and Grid Connection Site.

The Existing Development is not a recognised source of pollution that would give rise to significant effects on population and human health. Potential sources of pollution that could have resulted in significant environmental effects, such as bulk storage of hydrocarbons, chemicals, or waste storage, were limited during the construction phase.

The impact assessment undertaken in Chapter 5 Population and Human Health concludes that, with the implementation of best practise measures and the mitigation provided in the 2019 CEMP, emissions from dust and noise, impacts to water quality, and the management of hydrocarbons onsite, the residual effects on Health during the construction of the Existing Development is Not Significant.

There was no injury, loss of life or near miss incident to members of the public or construction staff during or following the November 2020 Peat Slide. No households were evacuated and no impacts or occurred to any public road, utilities, or infrastructure. The Retrospective Peat Stability Assessment Report (Appendix 8-1) concludes that there is no ongoing risk of peat failure from the Existing Development.

1.6 Biodiversity

The Existing Development is located in County Donegal, close to the Northern Irish border. This chapter forms part of a Remedial Environmental Impact Assessment Report (rEIAR) submitted in support of an application for substitute consent. Unlike the companion EIAR chapter, which assesses

works remaining to be completed, this rEIAR chapter assesses all works carried out at the Wind Farm Site and Grid Connection Site since November 2019, referred to as the Existing Development. These comprise upgraded access roads and junctions; foundations and hardstand areas for 18 wind turbines at various stages of construction; a 110kV electrical substation with control buildings and security fencing; 110kV underground grid connection cabling running primarily within the public road corridor and connecting the on-site substation to the Clogher Substation at Cullionboy; internal wind farm cabling; two temporary construction compounds; three borrow pits; peat and spoil management; forestry felling; site drainage and sediment control; and all associated ancillary works. The assessment covers both the Wind Farm Site and the Grid Connection Site. Birds are assessed in Chapter 7 of the rEIAR and are not covered here.

The assessment was prepared by qualified ecologists at MKO and Triturus Ltd. The ecological baseline was first established in the 2017 EIAR and updated through comprehensive field surveys undertaken across multiple seasons between 2021 and 2026. These covered habitat mapping, otter surveys, bat surveys using manual transects and static acoustic detectors, aquatic and fisheries surveys, biological water quality sampling, salmonid spawning surveys, and invasive species searches. A desk study consulted national and cross-border databases including the National Parks and Wildlife Service (NPWS), National Biodiversity Data Centre (NBDC), Environmental Protection Agency (EPA), and Northern Ireland Environment Agency (NIEA) records, as well as Inland Fisheries Ireland (IFI) reports and EPA water quality data. The baseline against which the Existing Development is assessed is the pre-construction condition established in the 2017 EIAR. Habitats and species within each Zone of Influence (the area where effects could potentially have occurred) were rated for ecological importance and, where a pathway for effect existed, designated as Key Ecological Receptors (the habitats and species on which the assessment focuses).

The Wind Farm Site is dominated by commercial conifer plantation, which covered approximately 91% of the study area before construction and 81% by 2025, the reduction reflecting forestry cleared for wind farm infrastructure. The Existing Development replaced conifer plantation primarily with built surfaces, bare ground, and recolonising habitats associated with turbine foundations, access roads, and peat management areas. A fragmented mosaic of upland blanket bog and wet heath, both protected habitat types under EU law, occurs on the Wind Farm Site, primarily in the northeast and among forestry in the centre. In November 2020, a peat slide occurred on the Wind Farm Site, directly affecting approximately 2.2 hectares of blanket bog. By 2025, slow natural recolonisation with cottongrasses, heathers, and Sphagnum mosses was observed at the majority of monitoring points within the affected area, and no signs of deterioration or desiccation of the surrounding blanket bog were recorded. The Wind Farm Site has also been assessed as stable and at low risk of further peat failure. Carrickaduff Lough, a naturally dark, acidic, peatland lake and also a protected habitat type, is located within the Wind Farm Site and was not affected by the Existing Development. A small area of recently cut-over blanket bog adjacent to the access road was unchanged between the 2017 surveys and 2025. The Grid Connection Site is located almost entirely within the existing public road network; a short section of approximately 430 metres ran immediately adjacent to the road through improved wet grassland.

Three river systems flow within the Wind Farm Site: the Bunadaowen, Shruhangarve, and Glendergan Rivers. Mary Breen's Burn (also known as the Croaghonagh River) flows close to the entrance road. All these watercourses connect downstream to the Mourne Beg River and ultimately the River Finn and River Foyle catchments. A small section of the Wind Farm Site and the Grid Connection Site also drains to the Lowerymore catchment, though no streams are present within the Wind Farm Site in this area. The November 2020 peat slide directly affected the Shruhangarve River, depositing large volumes of peat for over 14 kilometres downstream into the Mourne Beg River. An emergency response involving containment walls, peat removal, stream channel restoration, bank stabilisation, and native tree planting was completed under direction from Donegal County Council. By 2025, the Shruhangarve was in very similar condition to pre-construction surveys, now surrounded by a wide native riparian buffer rather than conifer plantation. Water quality across most of the downstream Mourne Beg River

recovered to good status within 11 months of the peat slide. No protected plant species were recorded on the Wind Farm Site or Grid Connection Site.

Six bat species were recorded at low overall activity levels across the Wind Farm Site: Leisler's bat, common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, Myotis species, and brown long-eared bat. No bat roosts were identified anywhere on the Wind Farm Site or Grid Connection Site. Otter use was confirmed at the Bunadaowen River bridge, where spraint was recorded during multiple surveys. Other mammals recorded include red deer, Irish hare, pine marten, red squirrel, fox, badger, and pygmy shrew. Aquatic surveys recorded Atlantic salmon, brown trout, sea trout, European eel, stone loach, minnow, and three-spined stickleback. Redd surveys and Loughs Agency data confirmed widespread salmonid spawning throughout the Mourne Beg system between 2021 and 2025. Following the peat slide, salmon fry numbers increased in 2021 and the distribution of spawning redds recovered by subsequent years; brown trout numbers were temporarily reduced in 2021 and 2022 but had recovered by 2023 to 2025. No freshwater pearl mussel has been recorded in the Mourne Beg catchment; the nearest known population is in the River Eske, more than 4.3 kilometres downstream of the nearest point of the Grid Connection Site. Two invasive plant species were identified: Rhododendron, occurring as isolated individual bushes or small clumps throughout the Wind Farm Site, and Himalayan knotweed, recorded at one location outside the Wind Farm Site and Grid Connection Site boundary. A single individual of New Zealand flatworm was recorded in a kick sample in the Mourne Beg River in 2024.

Four Special Areas of Conservation (SACs, sites protected under EU law for important habitats or species) were identified as being within the Zone of Influence via surface water connections: Croaghonagh Bog SAC, River Finn SAC, River Foyle and Tributaries SAC, and Lough Eske and Ardnamona Wood SAC. The Lough Eske and Ardnamona Wood proposed Natural Heritage Area (a nationally Designated Site) was also identified as being within the Zone of Influence via the Lowerymore River. The River Foyle and Tributaries Area of Special Scientific Interest in Northern Ireland was identified as being within the Zone of Influence via the Mourne Beg and connecting rivers. A section of the Grid Connection Site overlaps with the Cashelnavean Bog Natural Heritage Area, but as it is located entirely within the existing road carriageway throughout this section with no loss of natural habitat, no potential for significant effects on that site was identified. No other nearby Designated Sites were found to have a complete pathway for significant effects.

The Existing Development resulted in the loss of approximately 0.9 hectares of blanket bog and wet heath to accommodate the construction of two turbine foundations, an effect anticipated in the 2017 EIAR. The November 2020 peat slide caused deterioration to approximately 2.2 hectares of additional blanket bog. Together, the loss and deterioration of peatland as a result of the Existing Development and the peat slide totalled approximately 3.1 hectares, affecting areas of Annex I habitat types including Active Blanket Bog and Atlantic Wet Heaths. The chapter assessed this as a Significant effect on peatland habitats of County importance. No evidence of dust deposition impacts or desiccation of surrounding bog habitats was recorded, and the Wind Farm Site is assessed as stable and at low risk of further peat failure. The mitigation for this loss is provided through the Prospective Development and is fully described in the companion EIAR: approximately 108 hectares of conifer forestry growing on peatland will be permanently felled and managed to restore blanket bog, heath, and scrub, with approximately 6.2 hectares specifically restored as wet blanket bog. Following implementation of these measures, no significant residual effect on peatland habitats will remain.

No evidence of significant effects on any watercourse or associated aquatic habitats and species arising from the construction works of the Existing Development was recorded, with the single exception of the November 2020 peat slide. The peat slide resulted in temporary Significant effects on water quality and aquatic habitat in the Shruhangarve River and for over 14 kilometres downstream in the Mourne Beg River, including severe siltation and deterioration of salmonid spawning habitat. Despite this, water quality in all surveyed areas of the Mourne Beg downstream of the peat slide recovered to good status within 11 months. The Shruhangarve River had improved to moderate status by 2025 and continues to recover incrementally. Brown trout numbers were temporarily reduced in 2021 and 2022 but had

recovered by 2023 to 2025. The distribution of salmonid redds was temporarily altered following the peat slide, with fewer redds recorded downstream and more upstream in 2021, but spawning was distributed throughout the system again in subsequent years. No evidence of significant effects on Atlantic salmon populations, freshwater pearl mussel, European eel, or otter was recorded. No evidence of otter breeding or resting places was found within 150 metres of any construction works. Following the passage of time and the implementation of the response and restoration measures, no significant residual effects on any watercourses or associated aquatic habitats and species were identified.

Following the completion of the Existing Development, the Wind Farm Site and Grid Connection Site was stabilised, and ongoing monitoring confirms that there is no evidence of significant ongoing effects on any of the identified aquatic KERs. No potential for further peatland loss or deterioration was identified. The Invasive Species Management Plan implemented during construction prevented the spread of invasive species. Rhododendron was still present throughout the Wind Farm Site in 2025 in the same form (isolated bushes or small clumps) as before construction, with no evidence of spread. The felling of approximately 73 hectares of conifer plantation as part of the Existing Development has increased habitat heterogeneity on the Wind Farm Site, creating additional open areas, wetland features, and woodland edge habitat, which benefit a range of species.

The detailed assessment of potential effects on the four SACs is contained in the remedial Natura Impact Statement (rNIS) submitted alongside this application. The rNIS identified potential pathways for effects via water quality on the River Finn SAC, River Foyle and Tributaries SAC, and Lough Eske and Ardnamona Wood SAC, and a precautionary pathway for effects on Croaghonagh Bog SAC given its proximity to the entrance road. While temporary effects on the conservation objectives of the River Finn SAC and River Foyle and Tributaries SAC were identified as a result of the November 2020 peat slide, no adverse effects on Croaghonagh Bog SAC or Lough Eske and Ardnamona Wood SAC were recorded, and no significant ongoing or residual effects on any of the four SACs were identified. The rNIS concluded that the Existing Development, individually or in combination with other plans or projects, has not and will not adversely affect the integrity of any European Site. For nationally Designated Sites, no potential for significant effects on the Lough Eske and Ardnamona Wood proposed Natural Heritage Area or the River Foyle and Tributaries Area of Special Scientific Interest was identified following the implementation of mitigation.

The combined effects of the Existing Development and the Prospective Development were assessed together. No additional Key Ecological Receptors were identified through this in-combination assessment. There is no potential for significant adverse in-combination effects on any of the identified receptors, as there are no residual effects from the Existing Development; peatland losses will be fully offset by the enhancement measures in the Prospective Development; and the Prospective Development includes a comprehensive suite of water quality mitigation measures. Cumulative effects with other land uses and projects in the wider area, including surrounding forestry, quarrying, and peat harvesting, were also assessed. The November 2020 peat slide undoubtedly contributed to existing pressures on the Shruhangarve and Mourne Beg catchments, but its effects were temporary and no ongoing or residual contribution to cumulative effects was identified. Given the Wind Farm Site's location close to the Northern Irish border, transboundary effects via the Shruhangarve, Mourne Beg, and connected river systems were specifically considered. Temporary significant transboundary effects were identified as a result of the peat slide, but no significant ongoing or residual transboundary effects were identified.

Following the assessment, it is concluded that the Existing Development, excluding the November 2020 peat slide, did not result in any significant effects on biodiversity at any geographic scale, whether considered on its own, in combination with the Prospective Development, or in combination with other projects and land uses. The November 2020 peat slide resulted in temporary significant effects on aquatic habitats and brown trout in the Shruhangarve and Mourne Beg Rivers, but the affected habitats and species have recovered with the passage of time and through the implementation of emergency response and restoration works, and no significant ongoing or residual effects were identified. No

potential for significant effects on any Nationally Designated Site was identified. The remedial Natura Impact Statement concludes that the Existing Development has not and will not adversely affect the integrity of any European Site. No significant residual transboundary effects were identified.

1.7 Ornithology

This chapter assesses the effects of the Existing Development on bird species. Firstly, a brief description of the Existing Development is provided. This is followed by information on the methodologies that were followed in order to obtain the information necessary to complete a thorough assessment of the effects of the Existing Development on bird species and information on the survey data that was used, the results, and the ecological significance of the birds recorded within the Wind Farm Site and hinterland. The effects of the construction of the Existing Development are then described. An accurate description of the effects is derived following a thorough understanding of the nature of the Existing Development along with a comprehensive knowledge of bird activity within the Wind Farm Site and hinterland. The identification of Key Ornithological Receptors and the assessment of effects follow a precautionary approach.

The effects on designated sites is fully described in the remedial Natura Impact Statement that accompanies this application. The screening did not identify any pathway for adverse effects on any Special Protection Areas. The remedial Natura Impact Statement concluded that the Existing Development, individually or in-combination with other plans or projects, did not adversely affect the integrity of any European Site. As such, it is concluded that the Existing Development did not have an adverse impact on any European Sites designated for birds, either alone or in combination with other plans or projects.

Based on the detailed assessment, it is considered that the effect of the Existing Development upon birds was not significant. Effects associated with habitat loss and disturbance, and cumulative effects have been assessed to be no greater than Low (Percival, 2003) and Slight (EPA, 2022), with the exception of hen harrier for which a Very High (Percival, 2003) and Very Significant (EPA, 2022) effect may have occurred in relation to disturbance during construction. However, as detailed in Section 7.5.2.2 and Section 7.6.4, the data indicate that this effect was a temporary, short-term effect, as hen harrier returned and established a nest site the summer following construction, 770m from the previous nest site, and closer to the construction area. Therefore, the residual effect of disturbance is assessed to be Low (Percival, 2003) and Slight (EPA, 2022). In conclusion, no significant residual effects as a result of the Existing Development were identified for Key Ornithological Receptors.

1.8 Land, Soils and Geology

This chapter assesses the significant effects that the Existing Development had on land, soils and geology and details the mitigation measures which were implemented to avoid, reduce or offset any significant effects on the receiving environment.

The land, soils and geology of the Site has been characterised using a combination of desk study and site investigation data comprising of peat probes, gouge cores, borehole drilling and walkover surveys.

The Site is comprised of the Wind Farm Site and the Grid Connection Site. The baseline for the assessment of the Existing Development at the Site is pre-November 2019 which is when construction works commenced at the Site. The construction phase covers all works completed at the Site between November 2019 and the Present Day.

The Wind Farm Site currently comprises the Existing Development, areas of commercial forestry and blanket bog, and roadways. The elevation of the Wind Farm Site ranges between ~180 and 313mOD (metres above Ordnance Datum), with elevations generally decreasing and sloping in a north or north-westerly direction. The Grid Connection Site predominantly comprises of the existing public road network from the Wind Farm Site entrance to the Clogher 110kV substation.

Based on site investigations, the Wind Farm Site is overlain by blanket peat, with depths typically ranging from 0.5 to 2m. Although the peat depth is locally variable with areas of shallow and deeper peat (the maximum measured peat depths of 7m are not located in the vicinity of any element of the Existing Development. The deepest peat is located on the flatter areas of the Wind Farm Site which were avoided by the Existing Development footprint. The peat is underlain by a thin layer of mineral subsoil (which ranges in thickness from 0.1 to 0.45m) or weathered bedrock/bedrock.

The bedrock geology underlying the Wind Farm Site was encountered during the site investigations (borehole drilling). The depth to rock ranges from 0.4 to 5mbgl and the rock was described as very strong, thinly foliated, bluish to greenish, grey fine to medium grained PHYLLITE or medium strong grey SCHIST underling weak weathered SCHIST. The description of the bedrock encountered on-site correlates with the bedrock formations mapped at the Wind Farm Site by the GSI (i.e. the Lough Eske Psammite Formation).

The Existing Development involved site preparation works, site levelling, felling and vegetation removal, excavation of the borrow pits, soil/subsoil removal and the emplacement of the Existing Development infrastructure.

The footprint of the Existing Development (32.6 ha) is very small in comparison to the scale of the entire Wind Farm Site. Changes to the land environment occurred in these areas, with coniferous forestry being felled and peatlands being replaced by the Existing Development infrastructure. However, no significant effects occurred as a result of the Existing Development due to the scale of the development in comparison to the scale of the Site.

Peat and spoil excavated at the Site was managed in accordance with the 2017 Peat and Spoil Management Plan for the Permitted Development with peat managed in designated peat cells, sidecast along access roads or used in the partial reinstatement of the borrow pits. To date, it is estimated that the amount of peat and spoil excavated and managed at the Site is 450,900m^3. All peat and spoil excavated at the Wind Farm Site has been either used to partially reinstate the borrow pits, stored in the designed peat cells or sidecast along access roads. The volume of rock extracted to facilitate the construction ,of the Existing Development is estimated to be 457,027m^3. These direct effects are considered to be an acceptable consequence of the construction of the Existing Development.

A peat slide occurred in November 2020 during the construction of the Existing Development. This resulted in a moderate effect. The effects were not considered to be significant given the large volumes of peat present at the Wind Farm Site in comparison to the volume of peat disturbed by the November 2020 Peat Slide. Similarly, the land disturbed by the peat slide is infinitely small (0.4%) in comparison to the scale of the Wind Farm Site. A Peat Stability Risk Assessment has been completed for the Existing Development and concludes that the Existing Development is stable.

This rEIAR confirms that there will be no significant in-cumulation effects between the Existing Development and the Prospective Development.

Effects on the land, soils and geological environment occurred as direct effects, local to the footprint of the Existing Development, the point of extraction/excavation, and therefore could not extend beyond the boundary of the Site. Therefore, the remedial impact assessment confirms that there was no cumulative effects with other plans or projects as a result of the construction of the Existing Development. Similarly, there were no transboundary effects from the Existing Development.

1.9 Hydrology and Hydrogeology

This chapter assesses the significant effects that the Existing Development had on land, soils and geology and details the mitigation measures which were implemented to avoid, reduce or offset any significant effects on the receiving environment.

The baseline for the assessment of the Existing Development at the Wind Farm Site and Grid Connection Site is pre-November 2019 which is when construction works commenced at the Wind Farm Site and Grid Connection Site. The Construction Phase covers all works completed at the Wind Farm Site and Grid Connection Site between November 2019 and the Present Day.

The hydrological and hydrogeological impact assessment has been informed by a robust dataset which has been accrued during the baseline studies completed as part of the 2017 EIAR and during the construction phase of the Existing Development. The data informing the remedial impact assessment includes EPA biological monitoring data, visual inspection sheets completed by the Ecological Clerk of Works, monthly grab sampling in the main watercourses draining the Wind Farm Site, continuous turbidity monitoring, several rounds of biological Q-monitoring, groundwater quality sampling.

On a regional scale, the vast majority of the Wind Farm Site, is located within the Foyle River surface water catchment. A small area in the northwest of the Wind Farm Site is mapped within the Donegal Bay North surface water catchment and drains to the Lowerymore River. On a more local scale, within the Foyle catchment the Wind Farm Site is mapped within the Mourne Beg River sub-catchment. The Wind Farm Site is drained by the Mourne Beg River and its tributaries. The watercourses mapped within the Wind Farm Site include Mary Breen's Burn, the Bunadowen River and the Shruhanagarve Stream all of which discharge into the Mourne Beg River. A small area in the southeast of the Wind Farm Site is located in the Glendergan River WFD river sub-basin. The Grid Connection Site is within the Donegal Bay North catchment and is drained by the Lowerymore River and its tributaries.

The bedrock geology underlying the Wind Farm Site and the Grid Connection Site is classified as a Poor Aquifer. This means that the underlying bedrock has little or no open cracks which means groundwater movement within the aquifer is very localised. The bedrock is overlain by low permeability peat which further restricts groundwater recharge. Surface water runoff rates are high and surface waters are the main sensitive receptor.

During the construction of the Existing Development a number of activities took place at the Wind Farm Site and Grid Connection Site which had the potential to impact the local hydrological and hydrogeological environment. Mitigation measures were implemented in accordance with the 2019 CEMP to reduce and avoid negative effects on the receiving environment. These included surface water drainage measures, pollution control and other preventative measures designed to minimise significant effects on water quality (surface and groundwater), downstream designated sites and water resources. The storage and handling of hydrocarbons/chemicals was carried out using best practice methods which ensured the protection of surface and groundwater quality. The comprehensive water quality dataset shows that, with the exception of the November 2020 Peat Slide, that there was no significant effects on surface water (quality and flows) and groundwater (quality and quantity, and any local groundwater wells) as a result of the Existing Development.

A Peat Slide occurred in November 2020 during the construction of the Existing Development. This event resulted in a short-term negative effect on downstream water quality within the Shruhanagarve Stream and the Mourne Beg River. Emergency response measures were completed in the aftermath of the Peat Slide along with remedial works, channel reinstatement works and slip scar rehabilitation works designed to reduce the magnitude and duration of the effects on downstream watercourses. No significant long-term effects resulted from this Peat Slide as the large available dataset shows that the water quality in the receiving streams have returned to baseline levels.

Direct hydrological connections exist between the Wind Farm Site and several downstream designated sites including the River Foyle and Tributaries ASSI and SAC. The November 2020 Peat Slide would have resulted in a short-term significant effect on this designated site. No significant effects occurred on any designated sites hydrologically connected to the Wind Farm Site and Grid Connection Site in the Donegal Bay North surface water catchment including Lough Eske SAC.

No significant effects occurred on Uisce Eireann abstraction from the Bunadowen River. This watercourse was not impacted by the November 2020 Peat Slide and the comprehensive water quality

dataset indicates that there was no deterioration in water quality as a result of the Existing Development.

A Flood Risk Assessment has been completed for the Existing Development and concludes that Existing Development has not resulted in any increase in the downstream flood risk. The wind farm drainage system has been designed to slow surface water runoff from the Wind Farm Site by providing greater attenuation. This ensures that the Existing Development does not alter downstream surface water flows and will not contribute to downstream flooding.

A Water Framework Directive (WFD) Compliance Assessment has been completed for all waterbodies (surface water and groundwater bodies) with the potential to have been impacted by the Existing Development. The assessment presented in this rEIAR concludes that there have been no residual effects on the WFD status of any SWB or GWB as a result of the Existing Development.

An assessment of potential cumulative effects associated of the Existing Development and other developments on the hydrological and hydrogeological environment has been completed. The cumulative assessment found that there was no significant effects on the hydrological and hydrogeological environments.

With the implementation of the prescribed mitigation measures there will be no significant in-cumulation between the Prospective Development and the Existing Development.

The November 2020 Peat Slide resulted in a short-term transboundary effect. However, water quality monitoring has shown that the water quality has since returned to baseline / pre-construction levels.

1.10 Air Quality

This chapter assesses the significant effects that the Existing Development had on Air Quality and details the mitigation measures which were implemented to avoid, reduce or offset any significant effects on the receiving environment.

The Environmental Protection Agency (EPA) has designated four Air Quality Zones for Ireland:

- Zone A: Dublin City and environs
- Zone B: Cork City and environs
- Zone C: 16 urban areas with population greater than 15,000
- Zone D: Remainder of the country.

These zones were defined to meet the criteria for air quality monitoring, assessment and management described in the Clean Air for Europe (CAFE) Directive (as amended) and the Fourth Daughter Directive. The Existing Development lies within Zone D, which represents rural areas located away from large population centres.

The air quality in the vicinity of the Existing Development is typical of that of rural areas of Ireland, i.e., Zone D. Prevailing south-westerly winds carry clean, unpolluted air from the Atlantic Ocean onto the Irish mainland. The EPA publishes Air Monitoring Station Reports for monitoring locations in all four Air Quality Zones. The baseline year for the purposes of assessing the air quality effects of the Existing Development is 2019, the year in which construction of the Existing Development commenced. The report 'Air Quality in Ireland 2019' was published by the EPA in April 2020. The EPA reports provide SO_2, PM_{10}, NO_2 and O_3 concentrations for areas in Zone D.

The Institute of Air Quality Management in the UK (IAQM) guidance document '*Guidance on the Assessment of Dust from Demolition and Construction*' (2024)[1] was considered in the dust impact assessment. The guidance document outlines an assessment method for predicting the impact of dust emissions from construction activities based on the scale and nature of the works and the sensitivity of the area to dust impacts. This methodology has been used to evaluate the likely risk of dust as a result of the construction works of the Existing Development. The use of UK guidance is considered best practice in the absence of applicable Irish guidance. The major dust generating activities are divided into four types within the IAQM (2024) guidance to reflect their different potential impacts. These are: demolition, earthworks, construction and trackout. As there were no demolition works as part of the Existing Development, this aspect was not considered within the assessment. A recommended study area of 250m from dust soiling source on sensitive human and ecological receptors or 'Receptor Locations' were considered within the assessment.

There is a total of 43 no. human Receptor Locations within 250m of the Existing Development and 2 no. ecological Receptor Locations within 50m of the Existing Development which were assessed for potential impacts that may have occurred during the construction of the Existing Development. The assessment also considered the health effects of PM_{10} on human Receptor Locations.

A Construction and Environmental Management Plan (Appendix 4-4) was in place throughout the construction phase and includes dust suppression measures that were implemented for the construction of the Existing Development. Given the rural location, nature of the works and mitigation measures that were in place during the construction of the Existing Development, the assessment concludes that effects on human and ecological Receptor Locations from dust soiling, noxious gases from exhaust emissions and PM_{10} was imperceptible, negative and short term and Not Significant.

1.11 Climate

This chapter looks at how the Existing Development has affected the climate, mainly through greenhouse gases released during construction, and how this compares with the greenhouse gases that will be avoided once the full wind farm is generating clean electricity. The legislation and policy that underpins this chapter is summarised separately in Appendix 11-1.

Greenhouse gases, released mainly by burning fossil fuels, are the main cause of climate change. Ireland has legally binding targets to cut its emissions, including a target specific to the electricity sector. Because a wind farm generates electricity without burning fossil fuels, it can help meet these targets. However, building a wind farm will still causes some greenhouse gas emissions, mainly from construction activity and from disturbing peat and other carbon-storing ground.

Nationally, Ireland's total greenhouse gas emissions were about 54,900,000 tonnes (measured as CO_2 equivalent) in 2023, slightly lower than in 1990 and the lowest yet recorded. Electricity generation was responsible for the largest share of this (57%), followed by agriculture (36%). This context matters because it shows how a single project like the Meenbog Wind Farm compares against the national picture, and why switching electricity generation to renewable sources like wind is such an important part of Ireland's climate effort.

Greenhouse Gases Caused by the Works Already Built

Building wind farm infrastructure disturbs peat and soil, which store carbon, and releases greenhouse gases through the use of construction materials, vehicles, machinery, and the felling of forestry to make

[1] Institute of Air Quality Management (IAQM) (2024) *Guidance on the Assessment of Dust from Demolition and Construction. Version 2.2.* https://iaqm.co.uk/guidance/

space for the works. Using a recognised calculation method, this construction work is estimated to have released approximately 139,800 tonnes of CO_2 equivalent, though the true figure is expected to be lower than this because the calculation uses cautious, worst-case assumptions.

The great majority of this figure (around 78%) comes from disturbance of peat and soil. As a precaution, this includes the full amount of peat displaced in the peat slide that occurred on the site in November 2020, even though this was an unplanned event rather than a routine part of construction. The remainder comes mainly from the materials used in construction (around 14%) and from construction activities such as excavation (around 7%), with only very small amounts from transport and other pre-construction works.

Measures were in place during construction to keep these emissions as low as reasonably possible, including keeping vehicles and machinery well maintained, switching off engines when not in use, and sourcing most stone and rock for construction from within the site itself rather than importing it, which reduced delivery journeys. Taking these measures into account, the emissions caused by building the Existing Development are considered permanent (because greenhouse gases remain in the atmosphere once released) but slight in scale, and are not a significant effect when measured against Ireland's national carbon allowance for the electricity sector. There was also no significant combined effect when this construction activity is considered alongside other projects being built in Ireland at the same time.

Emissions Avoided by the Whole Wind Farm

The wind farm has not yet been completed. Chapter 11 also looks ahead to what will happen once construction is finished and the wind farm is fully operating (this combined picture of the built and future works is called the 'Subject Development'). Completing and operating the wind farm is expected to cause further greenhouse gas losses of roughly 284,700 tonnes of CO_2 equivalent in total, mostly again from disturbed peat and soil, plus emissions from the manufacture and eventual removal of the turbines themselves.

Once operating, however, the wind farm will generate clean electricity in place of electricity that would otherwise come from fossil fuels. This is expected to avoid around 53,100 tonnes of CO_2 equivalent every year, or roughly 1,327,000 tonnes over its proposed 25-year operating life. On this basis, the emissions caused by building and running the wind farm are expected to be paid back by the clean electricity it generates within about five years of it starting to operate, after which it continues to deliver a climate benefit for the rest of its operating life.

Taking construction and operation together, and considered alongside other renewable energy projects in Ireland, the wind farm is expected to have a positive long-term effect on climate, and there is no significant negative effect when considered in combination with other projects in the area.

Effects Beyond Ireland

Greenhouse gases mix into the global atmosphere rather than staying in one place, so their effects are not confined to a particular local area or to one side of the border. Taking this into account, the emissions associated with the wind farm are not expected to cause any significant effect, whether considered on their own, together with other developments, or in a cross-border context.

Overall Summary

The Existing Development has caused a slight, permanent, but not significant amount of greenhouse gas emissions, mainly from disturbing peat and soil during construction, including the peat slide of November 2020. Once the wind farm is complete and generating electricity, it is expected to more than offset these emissions within around five years and go on to deliver a long-term positive contribution to Ireland's climate targets, without any significant effects arising alone, in combination with other projects, or across the border.

1.12 Noise and Vibration

This chapter assesses the significant effects that the Existing Development had from Noise and Vibration and details the mitigation measures which were implemented to avoid, reduce or offset any significant effects on the receiving environment.

The assessment of construction noise and vibration and has been conducted in accordance with best practice guidance contained in BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Noise and BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Vibration.

Residual noise associated with the construction of the Existing Development has been calculated to be below the appropriate threshold values. The associated noise and vibration levels did not cause significant effect at any NSL.

Operational noise from the onsite 110kV substation has been assessed and found to be imperceptible.

No significant vibration effects are associated with the operation of the substation.

Therefore, it is concluded that no significant noise and vibration effects are associated with the Existing Development

1.13 Landscape and Visual

Chapter 13 of the rEIAR assesses the likely significant landscape and visual impacts arising as a result of the Existing Development. As established throughout Chapter 13, there is very limited visibility of the Existing Development in the rLVIA Study Area, with the exception of the onsite 110kV substation which is visible as a small distant feature within the landscape, primarily with potential visibility along certain portions the N15 that do not directly impact protected views and a small portion of the North-West Cycle Trail. A small stretch of the N15 will also likely experience visibility of the modified, existing entrance. These existing elements are located within a landscape that was, and remains, of generally low landscape sensitivity. Considering the limited visual exposure of the Existing Development and limited number of sensitive landscape and visual receptors impacted within the rLVIA Study Area, the Existing Development has not resulted in any significant negative landscape or visual effects.

1.14 Cultural Heritage

The Cultural Heritage chapter was prepared by Tobar Archaeological Services Ltd. It presents the results of an archaeological, architectural and cultural heritage impact assessment of the Existing Development. The assessment was based on desktop research, previous field survey, GIS based mapping, and the results of monitoring of ground works (Delany, 2023). Potential direct and indirect effects to the recorded and unrecorded cultural heritage resource as a result of the Existing Development were assessed. No direct or indirect effects were identified. Potential cumulative effects were also assessed with no cumulative effects identified.

1.15 Material Assets

Chapter 15 looks at how the part of the wind farm that has already been built (the 'Existing Development') has affected roads and traffic, telecommunications and aviation, and other everyday services such as electricity, water and waste collection.

The Meenbog Wind Farm site sits in a rural, farming area of County Donegal, about 8 km southwest of Ballybofey and Stranorlar and about 12 km northeast of Donegal Town. A cable connection runs from the site for about 6 km along the N15 national road towards Donegal Town, before turning off onto local roads and crossing farmland to reach the Clogher electricity substation.

The part of the development already built and covered by this chapter includes site roads, a substation, borrow pits (areas where stone was dug for construction) and the underground cable connecting the site to the electricity network. No wind turbines have yet been delivered to the site.

Roads and Traffic

During construction, lorries and vans travelled to and from the site along the N15, entering at the existing site entrance. Concrete for the turbine foundations was delivered over 14 separate days, and general construction traffic ran over 262 days, with some overlap with separate works to install the electricity cable connection.

Traffic on the N15 near the site was checked against records going back to 2018. Traffic on this stretch of road has grown from about 7,150 vehicles a day in 2018 to about 8,500 a day in 2025, well within the road's capacity of around 11,600 vehicles a day. The extra lorries and vans generated by construction added no more than about 6% to daily traffic on the busiest delivery days, and far less on ordinary construction days. The road continued to operate comfortably within its capacity throughout.

A Traffic Management Plan was in place during construction. This included a dedicated traffic co-ordinator, advance notice to local residents of any road closures, temporary signs and, where needed, a person on site to direct traffic at busy times. Roads that were opened to install the cable connection were reinstated to the standard agreed with Donegal County Council.

Taking these measures into account, the effect of construction traffic on the road network was short-term and slight, and is not considered significant. No other large construction projects were happening in the area at the same time, so there was no build-up of effects with other developments, and because the delivery routes did not cross into Northern Ireland, there were no effects on roads in another jurisdiction.

Telecommunications and Aviation

Tall structures such as wind turbines can sometimes interfere with radio, television, telecommunications or aviation signals, or pose a hazard to aircraft. However, the development built so far consists only of low structures and underground works. This means there has been no possibility of any effect on telecommunications, broadcast signals or aviation, and this topic did not need further assessment.

Other Material Assets

Electricity

Overhead and underground electricity lines cross the site and the cable connection route. Before any digging took place, the location of these lines was checked and agreed with the relevant authorities, and construction staff were briefed on where they were. No damage to electricity infrastructure occurred during construction, and there were no power outages caused by the works. The effect on the electricity network was negligible.

Water

There is a water supply pipeline running alongside part of the N15 and onto local roads within the cable connection route. Before digging near this pipeline, its exact position and depth were checked and a safe clearance distance was kept during construction. Water for use on site during construction

came from a temporary tank filled locally, rather than from the mains network. No damage or disruption to water supply occurred, and the effect on water infrastructure was negligible.

Waste Management

Construction generated some ordinary waste, such as packaging, cabling and small amounts of leftover materials, along with very small quantities of substances such as oil and paint. All waste was handled by a licensed waste contractor and taken to an approved recycling and waste facility about 16 km away. Where possible, materials were reused on site: for example, excavated peat was used to restore borrow pits, and waste concrete was reused as backfill material. Hazardous materials were stored securely away from streams and drains. The amount of waste produced was small, and its management did not cause any significant effect.

Gas

There is no gas network infrastructure near the site – the nearest gas pipeline is roughly 28 km away – so there was no potential for any effect on gas supply, and this topic required no further assessment.

Effects Together with Other Developments

The chapter also considered whether the built works, added to other developments in the wider area, could cause a bigger combined effect than any one project on its own. No other large developments were under construction in the area at the same time, so there was no combined effect on traffic, electricity, water or waste services from the works already completed.

Looking ahead, if construction of the wider proposed wind farm project overlaps in time with construction of other nearby wind farms, there could be a short-term, minor increase in construction traffic. This will be managed, where possible, by timing construction to avoid overlapping with other projects in the area.

Effects Across the Border (Transboundary Effects)

None of the construction delivery routes cross into Northern Ireland, and none of the services or infrastructure assessed in this chapter extend across the border. A small number of construction workers may have travelled from Northern Ireland to work on the site, but this made no noticeable difference to traffic. There were no effects on roads, services or infrastructure in another jurisdiction.

Overall Summary

Taking all of the above together, the Existing Development has not caused any significant effects on roads and traffic, telecommunications, aviation, electricity, water supply, gas infrastructure or waste management. Where construction activity had the potential to cause disruption, appropriate measures such as traffic management, service checks before digging, and proper waste handling, were put in place and were effective. No significant effects arose either on their own or when considered together with other developments in the area, and there were no effects felt outside the State.

1.16 Vulnerability of the Project to/from Major Accidents and Natural Disasters

Ch. 16: Major Accidents and Natural Disasters of the EIAR describes the likely significant effects on the environment arising from the vulnerability of the Existing Development as detailed in Chapter 4: Description of the Existing Development, to risks of major accidents and/or natural disasters, as well as

the potential of the Existing Development itself to cause potential major accidents and/or natural disasters.

Major accidents or natural disasters are hazards which have the potential to affect the Existing Development and lead to environmental effects directly and indirectly. These include accidents during construction of the Existing Development caused by operational failure and/or natural hazards. The assessment of the risk of major accidents and/or disaster is considered in relation to the information required to be provided in the EIAR, i.e., population and human health, biodiversity, land, soil, water, air and climate and material assets, cultural heritage and the landscape.

A desk-study has been completed to establish the baseline environment for which the proposed risk assessment is being carried out. This will influence both the likelihood and the impact of a major accident or natural disaster. Local and regional context has been established prior to undertaking the risk assessment to develop an understanding of the vulnerability and resilience of the area to emergency situations.

Further detail on the baseline environment is provided in Section 16.3 of Ch. 16.

The scenarios with the highest risk score (risk scores or 4 or higher) in terms of a major accident and/or natural disaster during the construction, operation and decommissioning phase of the Prospective Development were identified as 'Traffic Incident During Construction, Operation and Decommissioning', 'Contamination During Construction and Decommissioning' and 'Fire/Explosion During Construction and Operation'.

Peat Stability is the only scenario identified which did occur during the construction of the Existing Development Following the peat slide in November 2020, a peat stability assessment was undertaken by Fehily Timoney in 2021 (Peat Stability Assessment of Meenbog Wind Farm Site, Appendix 8-2) in compliance with EPA's Direction, dated 3rd of December 2020, under Regulation 8(1)(b) of the European Communities (Environmental Liability) Regulations 2008. In addition to the report, meetings with the EPA on the matter and parameters for assessment were discussed. The assessment included but was not limited to the following:

- Review of construction works at the site,
- Review of ground conditions
- Detailed site inspection,
- Identification of previous peat failures and instability at the site,
- Qualitative assessment of peat stability at the site.
- Findings and mitigation measures.

Immediately following the November 2020 Peat Slide, all construction works relating to the Wind Farm Site were suspended, except for the peat slide remediation works and management activities. Environmental and engineering measures comprising containment and stabilisation work to minimise effects on lands, receiving watercourses and the surrounding habitat were implemented.

Following the November 2020 Peat Slide, additional mitigation and monitoring measures were recommended as listed below:

- No vehicles to track onto peat.
- Signage to be erected to indicate prohibition of construction vehicles tracking off-road.
- Floating roads to be subjected to a formal load test and certification (by Ionic) prior to turbine erection cranes being permitted to access them. The load test will involve incrementally increasing vehicle loads. Floating roads have also previously been subjected to construction vehicles such as the A25D, which has a total weight of 45 tonnes. Vehicle loading information has been included in Appendix H. The turbine crane will be restricted to an axle load of 12t, lower than the axle load of the A25

vehicles. No vehicles to track onto peat. Signage to be erected to indicate prohibition of construction vehicles tracking off-road.

- Works will be advanced from solid construction (as previously planned) to avoid the need for plant to track over peat.
- There is a no works zone to be enforced in an area south of T7 turbine works zone.

When the implementation of best practice measures, and all proposed mitigation and monitoring measures detailed in the EIAR are implemented, the residual effect(s) associated with the construction, operation and decommissioning of the Prospective Development are not significant.

Notwithstanding the occurrence of peat instability during construction, and the identified impacts in terms of people, the environment, essential services, and social receptors at the time of the event, it is concluded that No Significant Effects arose following the implementation of mitigation and remediation measures.

1.17 Interactions of the Foregoing

Article 3(1) of Directive 2014/52/EU requires that the EIA identifies, describe and assesses the direct and indirect significant effects of a project on*: '(a) population and human health; (b) biodiversity, with particular regard to species and habitats protected under Directives 92/43/EEC and 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and landscape; and (e) the interactions between these factors.'*

For any development with the potential to give rise to significant environmental effects, there is also potential for interaction between those effects. Such interactions may exacerbate, reduce, or have no influence on the significance of the effects identified.

The potential interactions between environmental effects arising from the construction of the Existing Development have been considered and assessed throughout the relevant chapters of this rEIAR. Chapter 17 provides an assessment of these interactions and includes a matrix identifying positive, negative, neutral and absent interactions between the environmental factors as listed in Article 3(1) during the construction phase.

Where potentially adverse interactions were identified, the mitigation measures set out in the relevant chapters of the rEIAR (Chapters 5–16) and implemented through the 2019 CEMP mitigated such effects. Consequently, any interactions between environmental factors that occurred during construction have been assessed as Not Significant.