TOBIN

Rooaunalaghta Green Energy Ltd

Volume I

Non–Technical Summary

BUILT ON KNOWLEDGE

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1 INTRODUCTION

Rooaunalaghta Green Energy Ltd. is applying to An Coimisiún Pleanála (ACP) to develop the proposed Rooaunalaghta Wind Farm (which, along with all associated infrastructure and works, is hereafter referred to as the proposed project).

The proposed project comprises a wind farm of thirteen wind turbines and all associated infrastructure including turbine foundations, turbine hardstands, a borrow pit, site access tracks, temporary construction compounds, an Operational Phase Light Detection and Ranging (LiDAR) device, a 33 kV underground grid connection and a Proposed 110 kV substation with associated electrical infrastructure. The location and extent of the proposed project is shown in Figure 1-1.

The proposed wind farm and proposed grid connection (referred to collectively as the proposed development) are the subject of a single planning application. This includes the construction of 13 no. wind turbines and all associated infrastructure including turbine foundations, turbine hardstands, a borrow pit, site access tracks, temporary construction compounds, a permanent Operational Phase Light Detection and Ranging (LiDAR) device and ancillary works; installation of a Grid Connection Route (GCR) comprising a 33 kV private grid connection cable (circa 8.7 km in length) from the On-site control building to the proposed 110 kV substation; and the construction of the proposed 110 kV substation in the townland of Killamanagh, Co. Galway, with associated works (including two steel lattice end masts) to connect to an existing overhead line in the townlands of Killamanagh and Bunnasillagh.

The proposed project has an installed generating capacity of approximately 58.5 MW and will provide renewable electricity to the national grid. The project will contribute to national and European renewable energy targets, support Ireland's transition to a low-carbon economy, improve energy security and reduce reliance on imported fossil fuels.

The planning application requires submission directly to ACP in accordance with Section 37E of the Planning and Development Act 2000, as amended. This approach has been confirmed following pre-application consultations with ACP under the provisions of Section 37B (ACP Ref. ACP-324133-26).

1.1 THE APPLICANT

The Applicant is Rooaunalaghta Green Energy Limited, a company wholly owned by Greensource Sustainable Developments Ltd (GSDL). GSDL is an Irish renewable energy group that focuses on sustainable power generation. They have a strong and proven track record for renewable energy development and operation.

GSDL is a leader in the promotion, operation and maintenance of renewable energy facilities who have developed and overseen their own projects from concept, creation to asset management.

GSDL's renewable technology portfolio covers wind farms, utility-scale photovoltaic (PV) solar power and biogas. GSDL's goal is to rapidly expand the use of renewable energy with technologies that address the growing concern about energy security, energy affordability, and climate change.

1.2 Structure and Purpose of the EIAR

An Environmental Impact Assessment (EIA) is required to ensure that projects that are likely to have significant effects on the surrounding area and the environment are properly assessed. Any significant effects identified in the assessment must be avoided or minimized where possible. The surveys and assessment findings are presented as a report, known as an Environmental Impact Assessment Report (EIAR).

TOBIN has prepared the EIAR in accordance with relevant and specific environmental legislation, guidance and advise notes. The report has been compiled in consultation with statutory bodies, stakeholders and the local community.

This document is Volume I of the EIAR. It is a Non- Technical Summary (NTS), which gives a brief description of the proposed project and the assessment of the relevant environmental matters in non-technical language.

The additional Volumes contain information as described below:

- Volume II: The Main EIAR – Contains detailed technical information relating to the proposed project and details of all of the assessments carried out. Volume II also contains drawings, figures and maps.
- Volume III: Appendices: This Volume contains information and data such as detailed survey information and technical reports that have been used in the EIAR and referred to in Volume II.
- Volume IV: Photomontages: This Volume contains imagery that has been used as part of the Landscape and Visual Impact Assessment contained in Volume II: The Main EIAR.

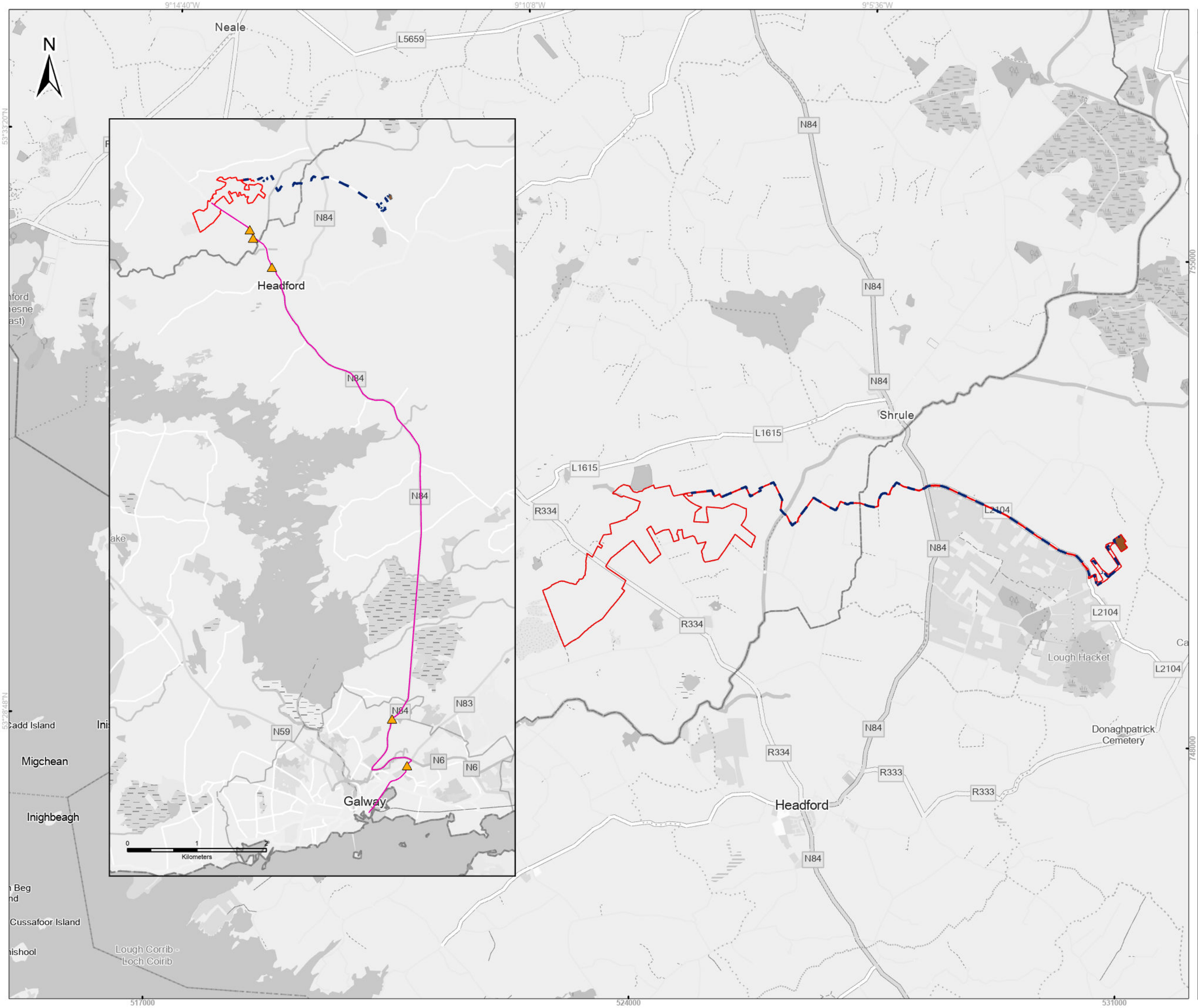
The purpose of this NTS is to provide a concise overview, in non-technical terms, of the issues, impacts and mitigation measures highlighted by the EIAR and presented in the main EIAR, Volume II.

1.3 Need for the Proposed Project

Ireland has committed to achieving substantial reductions in greenhouse gas emissions and increasing the proportion of electricity generated from renewable energy sources. National climate and energy policy identifies onshore wind energy as one of the key technologies required to achieve these objectives.

The proposed project will contribute towards Ireland's renewable energy and climate action targets by generating electricity from a renewable indigenous resource. The project will assist in reducing reliance on imported fossil fuels, improve security of energy supply and support Ireland's transition to a low-carbon economy.

The proposed project will also contribute to regional and national renewable energy generation capacity and provide economic benefits through employment, expenditure and investment during the construction and operational phases.





Legend

- Proposed wind farm site
- Proposed Grid Connection Route
- Proposed 110kV substation
- Proposed TDR Nodes
- Proposed Turbine Delivery Route

0 1 2 Kilometers

Spatial Reference
Datum: IRENET95
EPSG: 2157

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Rev	Date	Description	By	Chkd.
A	27/10/2026	First issue	KK	J.S

Client: ROOAUNALAGHTA Green Energy

Project:

Rooaunalaghta Green Energy Project

Title:

Figure 1-1:
Proposed project location

Scale @ A3:	1:50,000	
Prepared by:	Checked by:	Date:
K.Kale	J.Staunton	October 2026

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2 DESCRIPTION OF THE PROPOSED PROJECT

2.1 LOCATION OF THE WIND FARM SITE

The proposed project is located approximately 2.5 km southwest of Shrule, County Mayo, and approximately 3.5 km northwest of Headford, County Galway. The wind farm site extends across approximately 222 ha of predominantly agricultural land.

The site is situated on either side of the R334 Regional Road, which connects Headford and Ballinrobe. The surrounding area is rural in character and comprises a mixture of agricultural fields bounded by stone walls, hedgerows and treelines, together with smaller areas of scrub and woodland. Nearby settlements include Moyne, located to the southeast of the site, and Glencorrib, located to the northwest.

Ground levels across the site range from approximately 25 m to 60 m Above Ordnance Datum (AOD). Access to the proposed wind farm will be provided via two new site entrances from the R334 Regional Road.

Electricity generated by the wind farm will be collected at an on-site control building and transferred via an underground 33 kV cable route to a proposed 110 kV substation located in the townland of Killamanagh, County Galway, where it will connect to the national electricity grid.

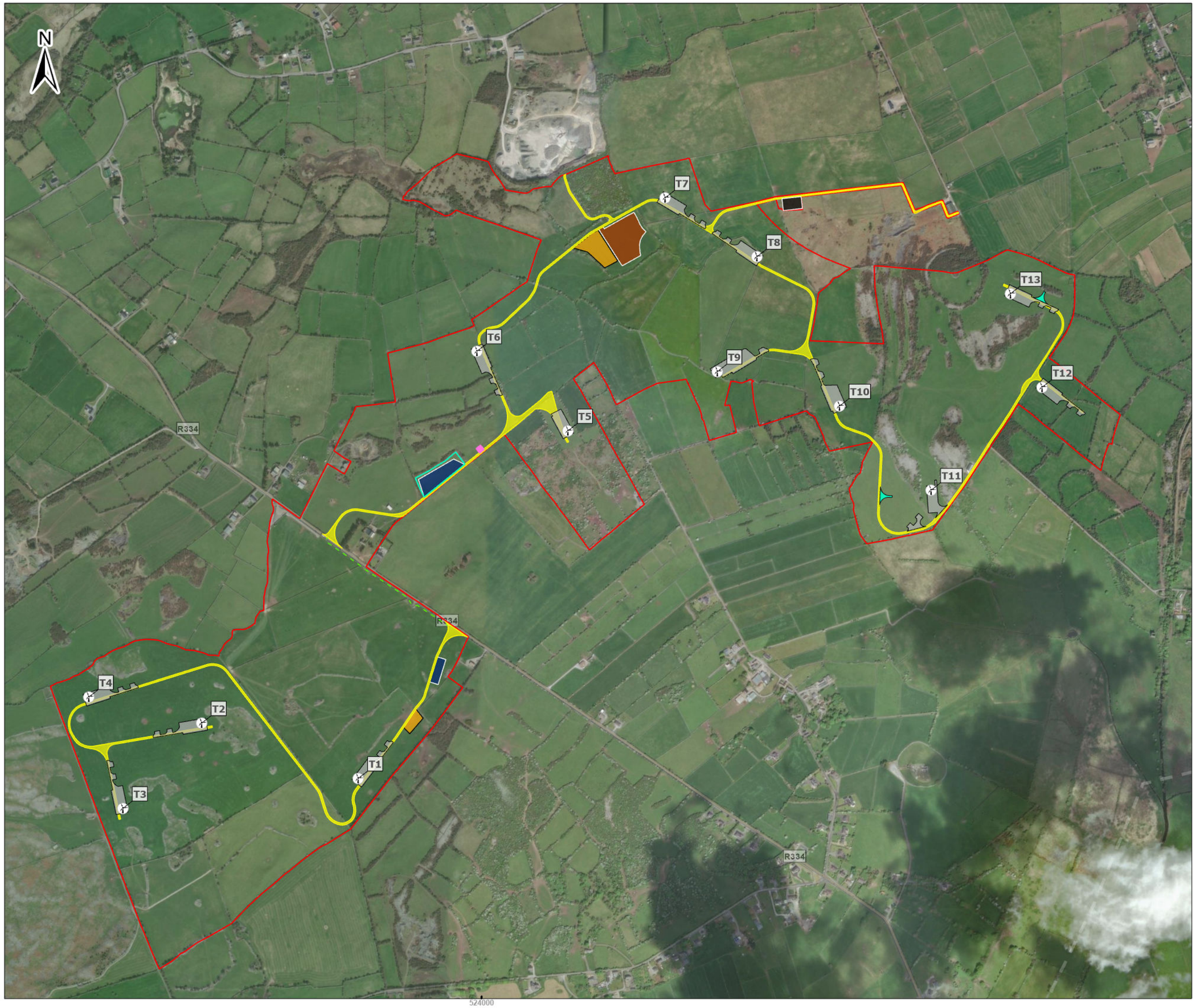
2.2 THE PROPOSED PROJECT

In summary, the proposed project comprises:

- 13 no. wind turbines with a blade tip height of 150 m, a rotor diameter of 136 m, a hub height of 82 m, and all associated foundations and hard-standing areas in respect of each turbine;
- Creation of two new site entrances onto the R334 regional road;
- Construction of two temporary construction compounds with associated temporary site offices, parking areas and security fencing;
- One borrow pit. All works associated with the opening, aggregate and spoil extraction, and decommissioning of the borrow pit;
- Construction of new internal site access tracks, to include passing bays and all associated drainage;
- Construction and reinstatement of a temporary access track to the boundary of the proposed wind farm site, abutting the adjacent quarry, to include passing bays and all associated drainage;
- Construction of two temporary spoil deposition/storage areas;
- Construction of drainage and sediment control systems;
- Construction of one permanent 33 kV on-site control building;
- Construction of one permanent 110 kV electrical substation compound (loop-in) including

  - Two control buildings containing worker welfare facilities;
  - Electrical infrastructure and grid ancillary services equipment
  - Parking
  - Lighting
  - Fencing
  - Wastewater holding tank
  - Rainwater harvesting equipment
  - Communications equipment and storage
  - Associated electrical plant
  - Lightning monopoles
  - All associated infrastructure, services, and site works including landscaping
- All works associated with the connection of the proposed wind farm to the national electrical grid, which will be via a 33 kV private grid connection cable to the proposed 110 kV substation with associated works (including two steel lattice end masts) to connect to an existing overhead line. This includes 4 no. watercourse crossings;
- All associated underground electrical and communications cabling connecting the wind turbines to the proposed wind farm control building;
- All associated infrastructure and services including site works and signage;
- Construction of a foundation and hard-standing area to accommodate a lidar unit for the purposes of wind monitoring during the operational phase of the proposed development;
- All related site works and ancillary development including site drainage, security gates, fencing, permanent and temporary signage, berms, stone wall removal, landscaping, soil excavation and biodiversity offsetting and enhancement measures, including hedgerow and tree planting; and
- Temporary additional works required along the public road network to accommodate delivery of oversize turbine components.

The proposed project has been considered and assessed as part of this EIAR. A 10-year planning permission and 35-year operational life from the date of commissioning of the entire wind farm is being sought for the proposed development and does not include elements of the overall proposed project which will be subject to a future consenting process.





Legend

- Proposed wind farm site boundary
- Turbine Locations

Site Layout

- Borrow Pit
- Temporary Construction Compounds
- Temporary Spoil Deposition Area
- Site Access Track
- Turbine Hardstands
- Proposed Lidar Unit
- Onsite Control Building
- Turning Head
- Alternative Constuction Compound
- Internal Underground Cabling

0 200 400
Meters

Spatial Reference
Datum: IRENET95
EPSG: 2157

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A	27/10/2026	First issue	K.K	J.S

Client: ROOAUNALAGHTA Green Energy

Project:

Rooaunalaghta Green Energy Project

Title:

Figure 2-1:
Proposed Wind Farm Site Layout

Scale @ A3: 1:10,000

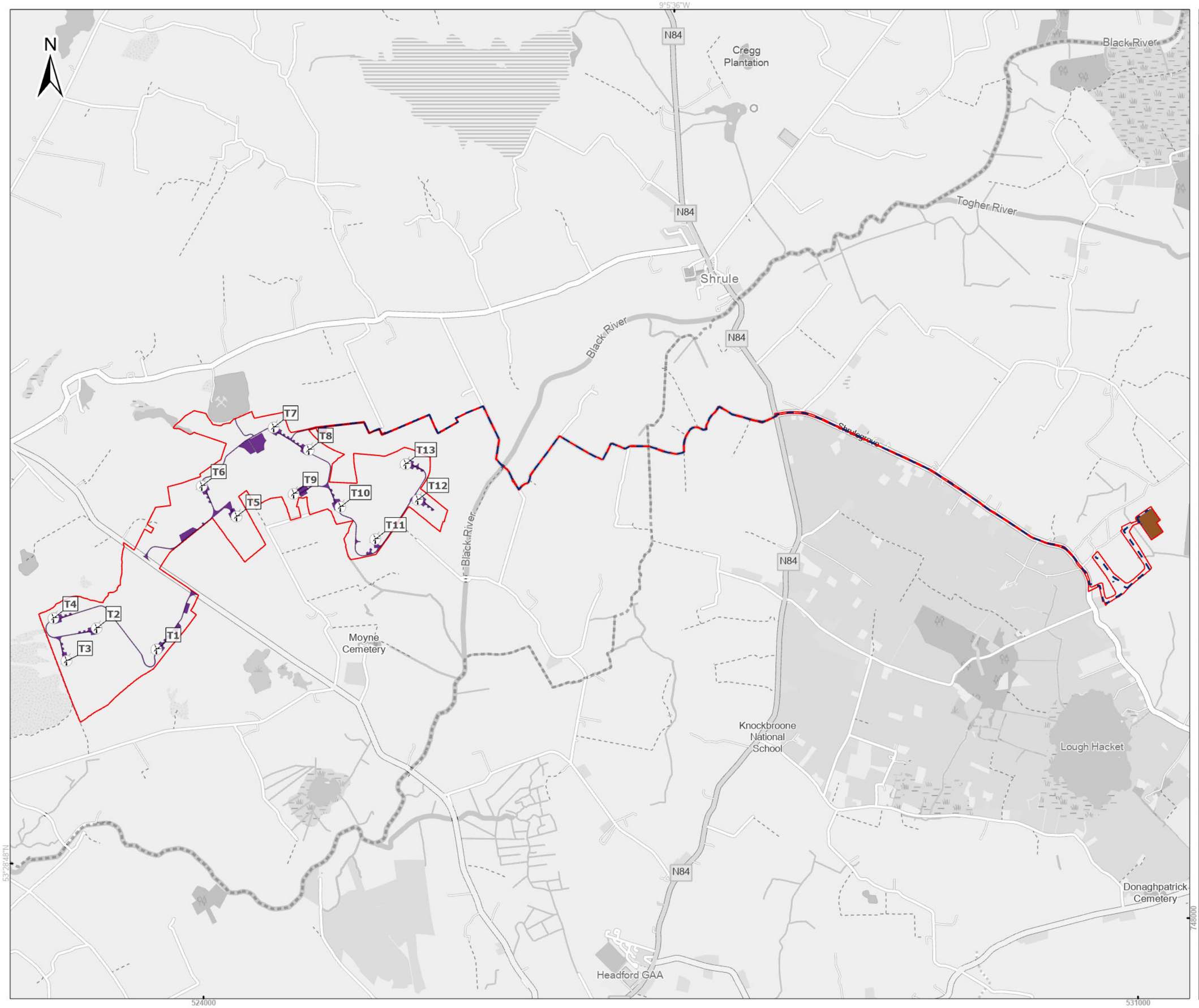
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Legend

- Proposed wind farm site
- Turbine Locations
- Site Layout
- Proposed Grid Connection Route

0 500 1,000
Meters

Spatial Reference
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Client: ROOAUNALAGHTA Green Energy

Project:

Rooaunalaghta Green Energy Project

Title:

Figure 2-2:
Grid Connection Route

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S.Pezzetta	J.Staunton	October 2026

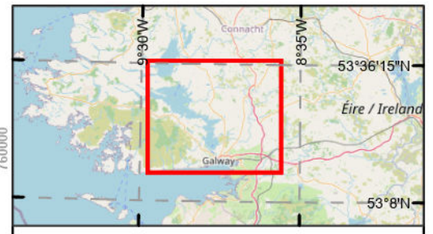
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Legend

- Proposed wind farm site
- Proposed Turbine Delivery Route
- Proposed TDR Nodes

0 2 4
Kilometers

Spatial Reference
Datum: IRENET95
EPSG: 2157

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A	27/10/2026	First issue	KK	JS

Client: ROOAUNALAGHTA Green Energy

Project:
Rooaunalaghta Green Energy Project

Title:
Figure 2-3:
Turbine Delivery Route

Scale @ A3: 1:150,000

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K.Kale	J.Staunton	October 2026

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2.3 Scoping and Consultation

As part of the Environmental Impact Assessment (EIA) process, the Applicant undertook consultation with ACP, relevant statutory and non-statutory bodies, telecommunications providers and the local community. The purpose of this consultation was to inform the design of the proposed project and ensure that environmental considerations were incorporated into the assessment process from an early stage.

Three pre-application consultation meetings were held with ACP during 2026. These meetings considered the proposed project design, environmental surveys, ecology, hydrology, landscape and visual effects, traffic, cultural heritage and other environmental topics. Feedback received during the consultation process informed the scope of surveys, assessments and mitigation measures included within the Environmental Impact Assessment Report (EIAR).

An EIA Scoping Report was prepared and issued, by email, to relevant statutory and non-statutory consultees in May 2026. The EIA Scoping Report was accompanied by a cover letter introducing the proposed project and inviting to respond with any comments or observations that will be considered as part of the assessment process and in the preparation of the EIAR.

The Applicant also undertook an extensive community engagement programme throughout project development. A Community Liaison Officer was appointed to act as a point of contact for local residents and stakeholders. Feedback received from the community helped inform the project design, including consideration of construction traffic management and protection of local water supply infrastructure. The Applicant remains committed to ongoing engagement with the local community throughout the planning, construction and operational phases of the proposed project

2.4 Design

The layout of the proposed wind farm provides for thirteen wind turbines and has been designed to minimise the potential environmental effects of the wind farm, while at the same time maximising the energy yield of the wind resource passing over the proposed wind farm site. A comprehensive constraint identification exercise, as described in Chapter 3, has been carried out to ensure that where possible turbines and ancillary infrastructure are sited in the most appropriate areas of the proposed wind farm site.

Available wind speed is a key factor in determining the economic viability of potential wind energy locations. In 2003, the Sustainable Energy Authority of Ireland (SEAI) produced a Wind Atlas with information on wind speed modelled at 50 m, 75 m and 100 m height above the ground. With turbine technology innovation, turbine models can now capture more of the wind current and have bigger rotors that radically change the economic viability of wind power. This has been reflected in the updated SEAI 2013 Wind Atlas which re-modelled wind speed data for a much wider range of 20-150 m height above ground level. The 2013 SEAI Wind Speed Atlas identifies the site as having a wind speed of between approximately 7.5 m/s and 7.6 m/s at 100 m above ground level. This indicates that the proposed wind farm site has a suitable wind resource for a commercial wind energy development.

Each turbine will have a top of foundation to blade tip height of 150 m. The blade rotor diameter will be 136 m with a corresponding hub height of 82 m.

The overall layout of the proposed wind farm is shown in Figure 2-1. This figure shows the proposed locations of the wind turbines and associated hardstanding areas, passing bays, electrical substation, borrow pit, temporary construction compound, LiDAR, internal site access tracks layout and the main site entrance.

Further details of the design approach and alternatives and constraints analysis are provided in EIAR (Volume II) Chapter 2 – Description of the Proposed Project and Chapter 3 – Reasonable Alternatives.

2.4.1 Construction Methodologies

EIAR (Volume II) Chapter 2 - Description of the proposed project, details construction methodologies for the following elements:

- Turbine Hardstands and Foundations;
- Traffic Management;
- Site Entrance;
- Internal Access Tracks;
- On-site control building;
- Proposed 110 kV substation;
- Underground Grid Connection Route;
- Horizontal Direction Drilling (HDD);
- Permanent LiDAR unit;
- Utilization of the Borrow Pit;
- Spoil Management;
- Temporary Construction Compound;
- Surface water management; and,
- Preliminary Drainage Design.

2.4.2 Environmental Management during Construction

A Construction Environmental Management Plan (CEMP) has been prepared for the proposed project (see EIAR Volume III, Appendix 2-2). The CEMP is a live document and will be reviewed and updated, as necessary, prior to the commencement of construction works to incorporate the requirements of any planning conditions, the findings of pre-construction surveys and investigations, and any additional mitigation measures required. The appointed Contractor will be responsible for updating the CEMP to produce a Construction Stage CEMP and for implementing the mitigation measures specified in the EIAR, Natura Impact Statement (NIS) and supporting project documentation. Implementation of the mitigation measures will be overseen by the Environmental Manager, Ecological Clerk of Works (ECoW), Project Ecologist, Project Archaeologist and Project Geotechnical Engineer/Geologist, as appropriate.

3 REASONABLE ALTERNATIVES

Chapter 3 of the Environmental Impact Assessment Report (EIAR) describes the reasonable alternatives considered during the design and development of the proposed Rooaunalaghta Wind Farm. The assessment considered alternatives in relation to the site location, project layout, associated infrastructure, grid connection, turbine delivery route, technology and construction methods. The assessment was undertaken in accordance with relevant EIA guidance and considered potential environmental effects alongside technical, planning and commercial factors.

The "Do-Nothing" scenario, whereby the proposed project would not proceed, was considered. Under this scenario, the opportunity to generate renewable electricity from a local wind resource would be lost, along with the associated reduction in greenhouse gas emissions and contribution towards national and European renewable energy targets. The socio-economic benefits associated with construction, operation and community investment would also not occur.

A comprehensive site selection exercise was undertaken by the Applicant to identify suitable locations for a wind energy development within County Mayo. This process involved the use of Geographical Information System (GIS) mapping and the assessment of a wide range of environmental, technical and planning constraints. Four potential sites were identified and assessed against criteria including wind resource, grid connection opportunities, planning policy, environmental designations, landscape capacity, accessibility, proximity to dwellings, hydrology, ecology, archaeology and land ownership considerations. Following this assessment, the Cloughmoyne/Rooaunalaghta site was identified as the preferred option for further development.

The design of the proposed project evolved through an iterative process informed by environmental surveys, technical assessments and stakeholder engagement. A number of alternative wind farm layouts were examined. Turbine positions were refined to avoid environmentally sensitive habitats, increase separation distances from nearby dwellings, minimise hedgerow removal, avoid archaeological constraints and reduce potential visual effects. The final layout was selected because it achieves the best balance between renewable energy generation and environmental protection.

Alternatives were also considered for access tracks, temporary construction compounds, borrow pit locations, site entrances, turbine delivery routes, on-site control building locations, substation locations and grid connection routes. In each case, the preferred option was selected because it reduced potential impacts on environmental receptors, minimised construction requirements, improved safety, or reduced impacts on local communities and road users.

A range of alternative technologies were assessed, including overhead line and underground cable grid connection options and the use of a met mast compared to a LiDAR unit. The preferred solutions were selected as they offered the most favourable environmental outcomes, particularly in relation to visual amenity, ecology, aviation, telecommunications and landscape effects.

Overall, the alternatives assessment demonstrates that the proposed project has evolved through a detailed and iterative design process. Environmental considerations were a key factor in the selection of the site, layout and associated infrastructure. The preferred project

represents the option that best balances renewable energy generation with the avoidance and minimisation of environmental effects.

4 POLICY, PLANNING AND DEVELOPMENT CONTEXT

This section considers the proposed project in the context of international, European, national, regional and local planning and energy policy. The assessment examines whether the proposed project is consistent with the relevant legislative and policy framework and whether it represents proper planning and sustainable development. There is strong policy support at international, European and national levels for the transition to renewable energy and the reduction of greenhouse gas emissions. International agreements, including the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement, establish commitments to address climate change and reduce reliance on fossil fuels. These have been further supported through European policy initiatives including the European Green Deal, the Renewable Energy Directive and the European Climate Law

At a national level, Ireland has committed to achieving a climate-neutral economy by 2050 and to generating 80% of electricity from renewable sources by 2030. Climate Action Plan 2025 maintains a target of approximately 9 GW of installed onshore wind capacity by 2030. The National Planning Framework also identifies the need for significant additional renewable electricity generation and supporting grid infrastructure to achieve these objectives. The proposed project will contribute towards these national and European renewable energy targets through the generation of renewable electricity from an indigenous source. The project will also contribute to improved energy security, reduce dependence on imported fossil fuels and support Ireland's transition to a low-carbon economy. The proposed development includes associated grid infrastructure required to facilitate the export of renewable electricity to the national network.

At a regional and local level, the proposed project is located within the Northern and Western Region and within the administrative areas of Mayo County Council and Galway County Council. Regional and local planning policy recognises the importance of renewable energy development and electricity infrastructure in supporting climate action, energy security and economic development objectives.

Overall, the assessment concludes that the proposed project aligns with the objectives of international, European, national, regional and local policy relating to renewable energy generation, climate action and energy security. The proposed project will make a positive contribution towards Ireland's renewable energy and climate commitments while supporting sustainable economic development in the region.

5 POPULATION AND HUMAN HEALTH

5.1 ASSESSMENT OF EFFECTS

The Population and Human Health assessment examined the potential effects of the proposed project on people living, working and using amenities in the surrounding area. The assessment considered land use, population trends, residential amenity, employment, tourism and recreation, together with health-related issues such as noise, air quality, water quality, traffic and shadow flicker.

The proposed wind farm is located in a predominantly rural agricultural area approximately 2.5 km southwest of Shrule, County Mayo, and 3.5 km northwest of Headford, County Galway. The surrounding area is characterised by dispersed rural housing, agricultural land and forestry. Population growth has occurred within the surrounding Electoral Divisions between 2011 and 2022, with population increases of approximately 4% to 7% recorded during this period.

Approximately 433 properties were identified within 2 km of the proposed wind farm site. The wind farm layout has been designed to maintain a minimum setback distance of 600 m (four times the proposed turbine tip height) from residential properties, with the exception of one involved landowner who has provided consent.

5.1.1 Construction Phase

During construction, temporary effects may occur as a result of increased construction traffic, noise, dust and construction activity. These effects are expected to be short-term and localised in nature. Best practice construction methods and environmental management measures will be implemented to minimise potential disturbance to nearby residents and road users.

The project will provide positive socio-economic benefits through direct and indirect employment, local expenditure and demand for accommodation, goods and services. Approximately 60 people are expected to be employed during peak construction. Local suppliers and contractors are also expected to benefit from the project.

Overall, no significant adverse effects on population or human health are predicted during construction. Residual effects are expected to be slight and temporary.

5.1.2 Operational Phase

During operation, the wind farm will generate renewable electricity and contribute to Ireland's renewable energy and climate objectives. The project will support long-term employment associated with operation and maintenance activities and will provide an annual Community Benefit Fund in accordance with the Renewable Electricity Support Scheme (RESS). This fund will provide direct benefits to the local community, including a Near Neighbour Scheme.

Noise modelling and shadow flicker assessments have confirmed that the wind farm can operate within applicable guidance limits. The assessment found no evidence that operational emissions from the wind farm would give rise to significant effects on human health. Published scientific research reviewed as part of the assessment indicates that there is currently no reliable evidence linking properly designed and regulated wind farms with adverse health impacts.

The operational phase is expected to result in positive effects through renewable energy generation, economic benefits, community investment and contribution to climate action targets.

5.1.3 Decommissioning Phase

If the wind farm is decommissioned at the end of its operational life, the activities involved will be similar to construction activities but of a shorter duration and reduced scale. Consequently, any effects on population and human health are expected to be no greater than those identified during construction.

5.2 Mitigation Measures

A range of mitigation measures have been incorporated into the project design and will be implemented during construction and operation. These include:

- Implementation of a Construction Environmental Management Plan (CEMP);
- Compliance with health and safety legislation and best practice construction methods;
- Measures to control dust, noise and traffic during construction;
- Protection of surface water and groundwater resources;
- Maintenance of minimum turbine setback distances from residential properties;
- Traffic management measures for turbine deliveries and grid connection works; and
- Ongoing environmental monitoring and maintenance throughout the operational phase.

No additional specific mitigation measures are required for Population and Human Health beyond those already incorporated into the project design and the mitigation measures identified within the relevant environmental assessments.

5.3 Residual Effects / Conclusion

After implementation of the proposed mitigation measures, no significant adverse effects on population or human health are predicted during the construction, operational or decommissioning phases of the project.

The project will provide positive long-term benefits through the generation of renewable electricity, contribution to national climate and energy policy objectives, local employment, economic activity and community benefit funding.

Overall, the assessment concludes that the proposed project will not result in significant adverse effects on population or human health and is expected to have a slight positive long-term effect on the local community.

6 BIODIVERSITY

6.1 RECEIVING ENVIRONMENT

The proposed project is located within a predominantly agricultural landscape containing a range of habitats including improved agricultural grassland, woodland, hedgerows, treelines, limestone pavement, species-rich calcareous grassland and turlough habitat. Several of these habitats are protected under the EU Habitats Directive and are of national conservation importance.

Several internationally and nationally designated sites occur within the wider study area. The most important of these are the Cloughmoyne SAC, which adjoins the proposed project boundary and is designated for limestone pavement habitat, and the Lough Corrib SAC, located approximately 150 m east of the proposed wind farm site. Other designated sites include a number of proposed Natural Heritage Areas (pNHAs) within the wider study area.

The Black River and its tributaries represent the principal aquatic features within the study area and support species including salmon, brown trout, lamprey and otter. Protected and notable species recorded within the study area include otter, badger, common frog and a Near Threatened butterfly species. Bat surveys recorded seven species, with Leisler's bat identified as the species most sensitive to potential operational effects.

6.2 SURVEY BASELINE

Baseline ecological conditions were established through desk studies, consultation and extensive field surveys undertaken between 2023 and 2026. Surveys included habitat mapping and classification, detailed botanical surveys, protected mammal surveys, herpetofauna surveys, Lepidoptera surveys, bat surveys and aquatic ecology surveys.

The ecological study area included the proposed wind farm site, Grid Connection Route (GCR), proposed 110 kV substation, associated infrastructure and the Turbine Delivery Route (TDR), together with areas within the Zone of Influence (ZoI) of ecological receptors.

6.3 ASSESSMENT OF EFFECTS

Potential effects during construction include habitat loss, habitat modification, disturbance to protected species, dust generation and temporary impacts on water quality.

The principal ecological risk during operation is the potential for bat collisions with turbine blades. Potential operational effects on habitats, designated sites, protected species and aquatic ecology were also assessed.

Decommissioning effects are expected to be similar to, but less extensive than, construction effects and will primarily involve temporary and localised disturbance to habitats and species.

The Appropriate Assessment process concluded that, with mitigation measures in place, the proposed project will not adversely affect the integrity of any European site, either alone or in combination with other plans or projects.

6.4 MITIGATION MEASURES

Through the design process, sensitive ecological features were avoided wherever practicable. A range of mitigation measures will be implemented during construction through the

Construction Environmental Management Plan (CEMP). These include ecological supervision of works, pollution prevention measures, drainage controls, species protection measures and pre-construction surveys where required.

Bat mitigation measures include maintaining turbine setback distances from important habitat features, habitat management around turbines, operational turbine curtailment during periods of elevated bat activity and post-construction monitoring.

Pre-decommissioning ecological surveys and environmental management measures will also be implemented to protect sensitive ecological receptors during the decommissioning phase.

6.5 Offsetting Measures

No biodiversity offsetting measures are proposed as significant adverse effects requiring offsetting have not been identified. Avoidance, design measures and mitigation measures are sufficient to ensure that no significant adverse residual effects on designated sites or protected species are predicted.

6.6 Enhancement Measures

Habitat enhancement measures will be implemented through a Habitat Management Plan (HMP). These measures include enhancement of species-rich grassland habitats, management of bracken-dominated areas, creation of new hedgerows, enhancement of existing boundary features and construction of new stone walls.

These measures will improve habitat connectivity and biodiversity value across the proposed wind farm site and provide long-term biodiversity benefits.

6.7 Residual Effects

Following the implementation of embedded design measures, mitigation measures and habitat enhancement measures, no significant adverse residual effects on designated sites, protected species or aquatic ecology are predicted.

Some residual adverse effects on a limited number of habitat receptors will remain, principally associated with habitat loss, habitat modification and the time required for habitat reinstatement to become fully established. These effects are predicted to be confined primarily to the local geographical scale. The Habitat Management Plan will provide long-term biodiversity benefits through habitat restoration, reinstatement and management, helping to offset these residual habitat effects over time.

7 ORNITHOLOGY

7.1 RECEIVING ENVIRONMENT

Several internationally and nationally designated sites occur within the wider study area. Lough Corrib Special Protection Area (SPA), designated for a range of wintering waterbird species, is located approximately 3.8 km west of the proposed wind farm site. Other important wetland sites include Rostaff Turlough, Shrule Turlough, Mocorha Lough and Lough Hacket, which support wintering birds and wetland assemblages.

The proposed wind farm site supports a typical assemblage of bird species associated with agricultural landscapes within a wider wetland-dominated region. Ornithological surveys indicated that the site is characterised by low-density foraging, commuting and transient bird activity, with no evidence that it supports important breeding, roosting or wintering habitat for species of conservation concern.

Wintering waterbirds recorded in the wider area included whooper swan, Greenland white-fronted goose, greylag goose, wigeon, teal, mallard, tufted duck and pochard. Wader species recorded included curlew, golden plover, lapwing, snipe and woodcock. Surveys found that these species were predominantly associated with nearby wetlands and agricultural lands outside the proposed wind farm site.

Raptor species recorded included buzzard, kestrel, peregrine, sparrowhawk, merlin and hen harrier. No breeding raptors, hen harrier roosts or breeding territories were identified within the survey area.

7.2 SURVEY BASELINE

Baseline ornithological conditions were established through desk studies and a comprehensive three-year field survey programme undertaken between September 2022 and September 2025. Surveys included vantage point surveys, breeding bird surveys, wintering waterbird surveys, breeding raptor surveys, dusk surveys and hen harrier roost surveys.

The surveys were undertaken within the Core Survey Area, comprising the proposed wind farm site and a 500 m buffer around its outer extent. Vantage point surveys demonstrated generally low levels of bird activity and identified no regular flight corridors or concentrated movement routes within the survey area.

7.3 ASSESSMENT OF EFFECTS

Potential construction effects include temporary disturbance and displacement of birds, habitat loss and indirect effects associated with construction activities.

During operation, the principal potential effects assessed included collision risk, disturbance, displacement and barrier effects. Collision Risk Modelling predicted extremely low collision rates over the operational lifetime of the proposed project and these effects were assessed as negligible and not significant. Surveys demonstrated that the proposed wind farm site does not provide a key resource for bird populations within the wider area.

Decommissioning effects are expected to be temporary and localised, arising primarily from disturbance associated with infrastructure removal.

A separate Natura Impact Statement (NIS) concluded that the proposed project will not adversely affect the integrity of any European site, including Lough Corrib SPA, either alone or in combination with other plans or projects.

7.4 Mitigation Measures

A range of mitigation measures will be implemented during construction to minimise potential impacts on birds. These include preparation and implementation of a Bird Protection Plan, pre-construction surveys, ecological supervision of works, timing restrictions where necessary and protection of active nests identified prior to construction. Water quality protection measures will also be implemented to protect nearby wetlands and designated sites.

7.5 Compensation Measures

No compensation measures are required as the assessment concluded that significant adverse effects on bird populations or designated ornithological sites will not occur.

7.6 Enhancement Measures

No specific ornithological enhancement measures are proposed. However, implementation of environmental protection measures and habitat reinstatement following construction will assist in maintaining the ecological function of the site.

7.7 Cumulative Effects

The assessment considered the potential for cumulative effects in combination with other plans and projects. No significant cumulative effects on bird populations or designated ornithological sites were identified. The Natura Impact Statement also concluded that there would be no adverse effects on the integrity of any European site when considered in combination with other plans or projects.

7.8 Residual Effects

Following implementation of the proposed mitigation measures, all residual effects on ornithological receptors are predicted to be negligible and not significant. No significant adverse effects on bird populations or designated sites are predicted during the construction, operational or decommissioning phases of the proposed project.

8 LAND SOILS AND GEOLOGY

An assessment of land, soils and geology was undertaken for the proposed project in accordance with the EPA (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. The assessment was informed by desktop studies, site walkovers, geological mapping, geophysical surveys and an extensive programme of ground investigations.

The proposed project site is located on agricultural land and is underlain by shallow mineral soils and glacial deposits over limestone bedrock. No peat was identified within the proposed wind farm site during the desk studies or site investigations, although a small area of shallow peaty soil was identified at the proposed 110 kV substation location.

The assessment considered potential effects on land use, soils, geological resources, ground stability, contamination and geological heritage features during the construction, operational and decommissioning phases of the proposed project. Site investigations confirmed that the underlying limestone bedrock is generally strong and suitable for construction. One on-site borrow pit is proposed to provide construction stone, reducing the need to import materials from external quarries.

8.1 Assessment of Effects

Construction activities will involve excavation works for turbine foundations, access tracks, hardstands, electrical infrastructure and the borrow pit. These works will result in temporary disturbance of soils and ground materials and a small permanent change in land use within the footprint of the wind farm infrastructure. Approximately 16 ha of land will be used during construction, with a permanent footprint of approximately 13 ha, representing less than 6% of the site area.

Potential risks during construction include soil erosion, compaction and accidental spillages of fuels or oils. The assessment also considered geological hazards such as unstable ground, peat instability and karst features. Site investigations confirmed that no significant peat deposits occur within the wind farm site and no significant geological constraints were identified which would affect the development. Although localised karst features (dolines) occur, they have been avoided through project design and no significant cavities or open voids were identified during site investigations.

During the operational phase, activities will be limited to routine maintenance of turbines, access tracks and electrical infrastructure. The potential for effects on land, soils and geology is therefore low. The effects associated with decommissioning will be similar to those during construction but of a smaller scale and reduced magnitude.

8.2 Mitigation Measures

A range of mitigation measures will be implemented through the Construction Environmental Management Plan (CEMP). These include:

- Careful management and storage of excavated soils and subsoils.
- Segregation and reuse of excavated materials on site where practicable.
- Use of bunded fuel and oil storage areas and spill prevention measures.
- Installation of oil interceptors at appropriate locations.

- Reinstatement and revegetation of disturbed ground following construction.
- Monitoring of excavation works by suitably qualified personnel.
- Implementation of a karst management protocol should any previously unidentified features be encountered during construction.

The use of an on-site borrow pit will reduce the amount of imported stone required and minimise construction-related traffic associated with material transport.

8.3 Overall Effects

Following the implementation of the proposed mitigation measures, no significant effects on land, soils or geology are predicted during the construction, operational or decommissioning phases of the proposed project. Residual effects are expected to be localised and not significant.

The assessment also considered other existing and proposed developments in the surrounding area. Due to the localised nature of the effects and the lack of overlap with other projects, no significant cumulative effects on land, soils or geology are anticipated.

Overall, the proposed project is not expected to result in any significant adverse effects on land, soils or geological resources.

9 HYDROLOGY AND HYDROGEOLOGY

9.1 ASSESSMENT OF EFFECTS

A Hydrology and Hydrogeology assessment was undertaken to examine the potential effects of the proposed project on surface water, groundwater, drainage patterns, water quality and flood risk. The assessment considered the proposed project site, the Grid Connection Route (GCR), and associated construction activities.

The proposed project site is located within the Corrib catchment and drains predominantly towards the Black (Shrule) River, which ultimately flows to Lough Corrib. A network of agricultural drains is present across the site, although there are no significant watercourses within the proposed wind farm site footprint. The site is underlain by a regionally important limestone aquifer and groundwater vulnerability is generally classified as high to extreme.

The assessment found that the site is not at significant risk of flooding and that there are no public water supply abstractions within the proposed project site. Existing surface water and groundwater quality is generally good, and the proposed project has been designed to avoid sensitive hydrological and hydrogeological features wherever possible.

9.1.1 Construction Phase

The construction phase has the greatest potential to affect the water environment due to activities such as excavation works, turbine foundation construction, access road development, cable installation, construction of the borrow pit and installation of drainage infrastructure. These activities have the potential to cause increased runoff, sediment release, accidental spillages of fuels or oils, and localised changes to groundwater conditions.

Without mitigation, construction activities could temporarily affect nearby surface waters through sediment-laden runoff or accidental pollution events. Localised dewatering may also be required during excavation works; however, groundwater effects are expected to be limited due to the nature of the site and the relatively small footprint of the proposed development. Any groundwater encountered is expected to be localised, with temporary dewatering managed through the proposed drainage and treatment systems.

The project design incorporates extensive embedded mitigation measures, including buffer zones around water features, drainage controls, settlement ponds, swales, interceptor drains and Sustainable Drainage Systems (SuDS). These measures are designed to protect both surface water and groundwater throughout the construction period.

Following implementation of mitigation measures, residual effects on water quality, groundwater quality, groundwater flow and surface water flow are predicted to be imperceptible to slight, temporary and not significant.

9.1.2 Operational Phase

During operation, the proposed project will not involve significant water abstractions or discharges. Surface water runoff from turbines, access tracks and hardstanding areas will continue to be managed through the permanent drainage network and SuDS features designed as part of the project.

Potential operational effects relate primarily to the presence of permanent infrastructure and the very low risk of accidental spills during routine maintenance activities. Hydrocarbon interceptor, bunded storage and ongoing maintenance of the drainage system will minimise the risk of impacts on groundwater and surface water quality.

The assessment concluded that operational effects on hydrology and hydrogeology will be slight and not significant. The project is not expected to adversely affect water quality, groundwater levels, drainage patterns or flood risk.

9.1.3 Decommissioning Phase

Decommissioning effects will be broadly similar to construction effects but of a smaller scale and shorter duration. Above-ground turbine components will be removed, while some infrastructure, including access tracks and underground elements, will remain in place.

The same environmental management and pollution prevention measures applied during construction will be implemented during decommissioning. As a result, no significant effects on hydrology or hydrogeology are anticipated.

9.2 Mitigation Measures

A comprehensive range of measures has been incorporated into the project design and construction methodology to protect the water environment and minimise potential impacts. These include:

- Implementation of a Construction Environmental Management Plan (CEMP);
- Implementation of a Surface Water Management Plan (SWMP);
- Use of Sustainable Drainage Systems (SuDS);
- Installation of interceptor drains, swales, settlement ponds and silt controls;
- Fuel and chemical storage within bunded and secure areas;
- Emergency spill response procedures;
- Daily inspection of dewatering operations and water treatment systems;
- Continuous water quality and turbidity monitoring during sensitive construction activities;
- Protection of watercourses during Grid Connection Route crossing works;
- Implementation of a Karst Management Protocol should any unexpected karst features be encountered during excavation works with supervision of excavations; and
- Ongoing monitoring of surface water and groundwater quality and levels throughout construction.

These measures will ensure that water quality objectives are maintained and that the proposed development complies with relevant environmental protection requirements.

9.3 Overall/Residual Effects

With the implementation of the proposed mitigation measures, no significant adverse effects on hydrology or hydrogeology are predicted during the construction, operational or decommissioning phases of the proposed project.

Residual effects on surface water quality, groundwater quality, groundwater flow and surface water flow are predicted to be imperceptible or slight and not significant. Existing drainage patterns will largely remain in place and will be enhanced through the implementation of the proposed drainage design and SuDS measures.

The assessment concludes that the proposed project can be constructed, operated and decommissioned without resulting in significant effects on water quality, groundwater resources, drainage patterns or flood risk, provided the identified mitigation measures are fully implemented.

10 SHADOW FLICKER

10.1 ASSESSMENT OF EFFECTS

Shadow flicker is a phenomenon that can occur when the rotating blades of a wind turbine pass between the sun and a window, causing a moving shadow inside a building. The effect is only experienced under particular combinations of sunlight, wind conditions, turbine operation and building orientation. The assessment considered all sensitive receptors within 1.36 km of the proposed turbines, which corresponds to ten times the turbine rotor diameter and is consistent with current Irish guidance.

A total of 204 sensitive receptors were assessed using specialist shadow flicker modelling software. The assessment used a highly conservative worst-case approach, assuming continuous sunshine, continuous turbine operation, no screening from vegetation or buildings, and turbine blade orientations that maximise shadow flicker effects. In reality, weather conditions, cloud cover, vegetation and changing wind directions substantially reduce the likelihood and duration of shadow flicker occurring.

There are no shadow flicker effects during the main construction phase as shadow flicker can only occur when turbine blades are installed and rotating. A slight and temporary effect may occur during the final commissioning stage while turbine control systems are being tested and calibrated. Any such effects would be short-term, temporary and not significant.

During operation, modelling identified that some receptors may exceed the guideline thresholds of 30 minutes per day or 30 hours per year under theoretical worst-case conditions. However, when realistic sunshine levels and prevailing wind conditions are taken into account, no receptors are predicted to exceed the annual guideline threshold. A number of receptors would experience no shadow flicker effects at all.

There are no shadow flicker effects associated with the decommissioning phase because the turbines would not be operating during this stage.

10.2 MITIGATION MEASURES

The proposed project has been designed to minimise the potential for shadow flicker through the siting and layout of turbines. In addition, a shadow flicker control system will be installed on all turbines.

The control system will continuously monitor:

- The position of the sun;
- Wind speed and wind direction;
- Turbine operating conditions; and
- The intensity of sunlight.

Where the system identifies the potential for shadow flicker to occur at a sensitive receptor, the relevant turbine will automatically shut down and will only restart once the potential for shadow flicker has passed. The turbines may require a short period, typically less than one minute, to safely come to a complete stop.

This mitigation approach is designed to ensure compliance with current Irish guidance and to effectively eliminate significant shadow flicker effects at nearby properties.

10.3 Residual Effects

Following the implementation of the shadow flicker control system, significant shadow flicker effects will be avoided. Residual effects during operation will be not significant, adverse and momentary, being limited to the brief period required for a turbine to come to a complete stop after an automatic shutdown instruction is issued.

Residual effects during the construction commissioning stage and decommissioning phase are considered imperceptible and temporary.

No cumulative shadow flicker effects are predicted due to the absence of other wind farms within a distance where overlapping shadow flicker effects could occur.

Overall, the assessment concludes that, with the proposed mitigation measures in place, the proposed project will not give rise to significant shadow flicker effects on nearby residential properties or other sensitive receptors.

11 MATERIAL ASSETS

This chapter of the EIAR assesses the potential effects of the proposed project on material assets. Material assets include aviation infrastructure, telecommunications networks, utility services (electricity, gas and water infrastructure), waste management services and certain natural resources. The assessment considered the proposed wind farm site, the Grid Connection Route (GCR) and the temporary works associated with the Turbine Delivery Route (TDR).

The nearest aviation facility of significance is Ireland West Airport, located approximately 49 km northeast of the proposed wind farm site. Existing telecommunications infrastructure in the area includes microwave radio links, telecommunications mast sites and the TETRA Ireland network. Utility infrastructure in the area includes overhead and underground electricity infrastructure, water supply networks and local telecommunications services. No gas infrastructure is located within the proposed wind farm site or along the GCR, although gas infrastructure is present near one temporary works area along the TDR.

11.1 ASSESSMENT OF EFFECTS

11.1.1 Construction Phase

Consultation with aviation stakeholders and the aviation assessment concluded that significant effects on aviation activities are not anticipated during construction. During the final stages of turbine erection there is potential for very limited and temporary interaction with aviation and telecommunications systems; however, these effects would be short-term and not significant.

Construction activities have the potential to interact with existing underground utility services, such as electricity, water and telecommunications infrastructure, particularly where excavations are required for the GCR and temporary works areas. Detailed site investigations and utility surveys will be undertaken before construction commences to identify existing services and avoid disruption. Any effects, should they occur, would be temporary and localised.

Construction will also generate construction and demolition waste, municipal waste and wastewater from site welfare facilities. These waste streams will be collected, segregated and managed by authorised waste contractors in accordance with waste management legislation. The resulting effects on waste management services are expected to be short-term and not significant.

11.1.2 Operational Phase

The operational assessment found that the proposed project will not have significant effects on aviation infrastructure or aviation operations. The wind farm is located outside key aviation safeguarding zones and consultation with aviation authorities did not identify significant concerns.

Detailed modelling of telecommunications systems was undertaken for telecommunications infrastructure identified during consultation. The assessment concluded that, following implementation of agreed mitigation measures, no significant effects on telecommunications services are anticipated.

During operation, no excavation activities will occur and therefore no effects on existing electricity, water or gas infrastructure are anticipated. Minor quantities of waste generated

through routine maintenance activities will be managed through licensed waste contractors. Effects on waste management services are expected to be imperceptible and not significant.

11.1.3 Decommissioning Phase

At the end of the operational life of the wind farm, the turbines may either be replaced or decommissioned. Should decommissioning occur, activities would be broadly similar to the construction phase but of shorter duration and lower intensity. Therefore, effects on aviation, telecommunications, utilities and waste management services would not be greater than those identified for construction.

11.2 Mitigation Measures

Mitigation measures have been incorporated into the design and assessment process to minimise potential effects on material assets. These include consultation with utility providers, aviation authorities and telecommunications operators, pre-construction utility surveys, implementation of safe working practices around existing services, and appropriate waste management procedures. Where potential telecommunications interactions were identified, mitigation measures were developed in consultation with the relevant network operators.

11.3 Residual Effects

Following the implementation of mitigation measures, no likely significant residual effects on aviation infrastructure, telecommunications systems, utility services or waste management facilities are predicted during the construction, operation or decommissioning phases of the proposed project. Any residual effects are expected to be temporary, localised and not significant.

In summary, the assessment concluded that the proposed project will not result in likely significant effects on material assets.

12 NOISE AND VIBRATION

A Noise and Vibration Assessment was undertaken for the construction, operational and decommissioning phases of the proposed development. Baseline noise surveys were completed at representative locations surrounding the site to establish existing environmental noise conditions and inform the assessment.

12.1 Assessment of Effects

The potential noise and vibration effects on the surrounding environment have been considered for three stages: the short-term construction phase and decommissioning phases, and the long-term operational phase.

12.1.1 Construction Phase

Construction activities, including turbine and hardstand construction, access track works, borrow pit operation, substation construction and grid connection works, will generate temporary increases in noise. Predicted noise levels at nearby dwellings were assessed using recognised industry guidance and found to be generally below applicable assessment criteria.

Short-term increases in noise may occur close to sections of the grid connection route; however, these works will be temporary and progressive in nature, limiting the duration of any effects. Construction vibration levels are predicted to remain well below recognised thresholds for building damage and human disturbance.

With the implementation of standard construction management measures and best practice noise and vibration controls, no significant construction noise or vibration effects are predicted.

12.1.2 Operational Phase

Operational noise from the wind farm turbines was assessed at all nearby noise-sensitive locations. The assessment found that predicted turbine noise levels comply with the applicable noise criteria at almost all locations. Minor exceedances were identified at a small number of dwellings under specific wind speed and wind direction combinations.

To address these exceedances, a turbine curtailment strategy will be implemented whereby selected turbines operate in reduced-noise modes during limited conditions. Following mitigation, all operational turbine noise levels will comply with the relevant criteria, and no significant effects are predicted.

Operational noise from the proposed 110 kV substation was also assessed and was found to be substantially below the applicable noise limits at the nearest dwellings. No significant operational noise effects are anticipated from the substation or other fixed plant associated with the development.

Operational vibration from the wind turbines is expected to be imperceptible at nearby properties and no significant vibration effects are predicted.

12.1.3 Decommissioning Phase

Noise and vibration effects during decommissioning are expected to be similar to, but generally less than, those experienced during construction. As these activities will be temporary and localised, no significant effects are predicted.

12.2 CONCLUSION

The assessment concludes that the proposed development can be constructed, operated and decommissioned without giving rise to significant noise or vibration effects. Following the implementation of the proposed turbine noise mitigation strategy, no significant residual noise or vibration impacts are predicted.

13 LANDSCAPE AND VISUAL

13.1 INTRODUCTION

This chapter describes the landscape context of the proposed project and assesses the likely landscape and visual impacts of the scheme on the receiving environment. Although closely linked, landscape and visual impacts are assessed separately.

In accordance with relevant guidelines, the study area used for the LVIA is 20km. Production of the Landscape and Visual Impact Assessment involved baseline work in the form of desktop studies and fieldwork followed by professional evaluation by qualified and experienced Landscape Architects.

13.2 BASELINE CONTEXT

The Proposed Project is located within a predominantly low-lying, gently undulating agricultural landscape situated between Headford and Shrule in south-east Mayo, close to the Galway border. The central study area is characterised by improved pasture fields enclosed by dry-stone walls and hedgerows, dispersed rural dwellings, farmsteads, local roads and occasional areas of scrub, woodland and exposed rock. Lough Corrib, approximately 3.2 km west of the nearest turbine, is the most notable landscape feature within the wider study area and contributes significantly to the scenic quality of the western landscape. The surrounding landscape displays a moderate degree of human influence and is actively managed for agricultural purposes.

The wider study area displays greater landscape diversity. Whilst the northern, eastern and southern extents comprise similar agricultural landscapes, the western areas encompass the lakeland landscapes of Lough Corrib and Lough Mask together with more elevated upland landforms. These areas support a stronger sense of scenic amenity, recreational value and naturalness and contain a concentration of scenic routes, heritage assets and tourism features.

The receiving landscape is characterised by a working agricultural environment comprising pastoral farmland, dispersed rural settlement, local road networks and established rural infrastructure. Whilst attractive and locally valued, the landscape is not subject to extensive national or regional landscape designations and displays a moderate degree of human influence. More sensitive landscape and visual receptors occur principally within the lakeland landscapes of Lough Corrib and Lough Mask and at heritage assets such as Ross Errilly Friary.

13.2.1 Landscape Policy Context

The Proposed Project is located within Landscape Character Area L, South-East Mayo Plains, as identified in the Mayo County Development Plan (CDP) Landscape Appraisal. This area is characterised by rolling pastoral farmland, hedgerows and stone walls, with critical landscape factors including undulating topography and shelter vegetation that assist in visually containing development.

The site is situated within Mayo Landscape Policy Area 4 (Drumlins and Inland Lowland), which is recognised as one of the most robust landscape policy areas in the county. Relevant policies support appropriately sited development that utilises existing infrastructure while ensuring scenic lakeland vistas and local landscape character are protected. The Mayo Landscape

Sensitivity Matrix identifies this policy area as having the lowest level of sensitivity to wind energy development when compared with other policy areas in the county.

The Wind Energy Development Guidelines identify the receiving landscape as most closely resembling "Hilly and Flat Farmland", a landscape type considered capable of accommodating appropriately designed wind energy development where adequate separation from sensitive receptors is maintained. The Proposed Project was designed in accordance with these principles through careful siting, turbine spacing and layout design.

Although recent wind energy mapping within the Mayo Renewable Energy Strategy places part of the site within an "Unsuitable" classification, the previous strategy identified the area as "Open for Consideration" and a portion of the site remains in an area identified as "Open for Consideration". The LVIA concludes that the site-specific landscape characteristics, together with the landscape's relatively robust character and existing human influence, demonstrate a capacity to accommodate the Proposed Project, subject to careful design and mitigation.

13.3 Mitigation Measures

Landscape and visual mitigation has been embedded into the design of the Proposed Project from the earliest stages of project development. Given the scale and visibility of commercial wind turbines, mitigation is principally achieved through site selection, layout optimisation and receptor offset distances rather than through screening measures.

The proposed turbine arrays have been located within a robust agricultural landscape that already accommodates a range of rural and infrastructural land uses. The layout has evolved through an iterative design process, with particular attention given to sensitive receptors such as Ross Errilly Friary and its associated scenic view designation. Turbine positions were refined to reduce visual clutter, overlap and stacked turbine views, resulting in a clearer and more legible turbine arrangement.

Additional mitigation measures include the use of an industry-standard off-white/light grey semi-matt turbine finish, undergrounding of electrical connections, retention of existing hedgerows, vegetation and dry-stone walls where practicable, minimisation of vegetation clearance and avoidance of counter-rotating blade arrangements.

The project also complies with the Draft Revised Wind Energy Development Guidelines visual amenity setback requirements. The nearest non-involved dwelling is located 600 m from the nearest turbine, equivalent to four times the maximum turbine tip height.

13.4 Overall Effects – Landscape

The most notable landscape effects arise from the introduction of thirteen 150 m turbines and associated infrastructure into a landscape primarily characterised by rolling pastoral lands. At a local level, the Proposed Project will markedly increase the intensity of built development and introduce a new wind energy component to the receiving landscape.

Construction and decommissioning activities will generate temporary adverse landscape effects within and immediately surrounding the site. However, these effects are localised, reversible and reduce rapidly with distance from the Proposed Project.

During operation, the greatest effects occur within the site and immediate surroundings where the turbines become a prominent new landscape feature. Beyond approximately 1 km from the

site, effects reduce progressively, becoming Moderate within the wider central study area and Slight to Imperceptible across the wider study area.

Overall, the most notable landscape effects occur within the site and immediate surroundings where the Proposed Project introduces a new wind energy component into the landscape. However, the receiving environment is considered capable of accommodating this change due to its relatively robust character, agricultural land use pattern, existing human influence and relatively open character, which aids in assimilating the scale and extent of the proposed turbine array. Beyond the immediate vicinity of the Proposed Project, landscape effects reduce rapidly with distance and throughout much of the wider study area. Overall residual landscape effects are assessed as **Not Significant** in EIA terms.

13.5 Overall Effects – Visual

The greatest visual effects occur at receptors located closest to the Proposed Project, particularly local roads, dwellings and community receptors within approximately 1 km of the proposed turbine arrays. At these locations, the turbines will become prominent new built elements within the landscape and will result in a noticeable change to existing views. Due to their scale and movement, the turbines will often draw the eye and increase the extent and intensity of built development visible within the surrounding rural environment. Visual effects reduce rapidly with increasing distance from the turbine arrays as the apparent scale of the turbines diminishes and the influence of intervening vegetation, buildings and low rolling landform becomes increasingly apparent.

The highest visual effects are confined to a small number of representative viewpoints in the immediate vicinity of the Proposed Project, principally where the turbines are viewed at distances of less than 1 km. Whilst the turbines will appear as dominant features from some localised locations, they generally present as a coherent and visually legible arrangement with clear spacing characteristics and limited overlap between turbines. The relatively open nature of the surrounding landscape, characterised by pastoral farmland, low dry-stone walls and dispersed settlement, assists in assimilating the scale and extent of the turbine array into the wider landscape framework. Beyond the immediate surroundings of the site, visual effects reduce progressively and are generally within the Moderate to Slight range.

Sensitive receptors including Ross Errilly Friary, designated scenic views, tourism assets associated with Lough Corrib, settlements and major routes generally experience mid to lower ranging effects due to increasing distance, screening by vegetation and landform, and the broad extent of views available. Particular consideration was given to Ross Errilly Friary and the associated Scenic View 33 during the design process. Turbine locations were refined to minimise visual clutter and improve the legibility of the turbine arrangement. Overall, the Proposed Project is not considered to significantly detract from their overall setting or appreciation.

The LVIA concludes that residual visual effects range from Substantial-Moderate at a limited number of localised receptors in the immediate surroundings of the Proposed Project to Imperceptible across parts of the wider study area. The higher-order effects are confined to a relatively small area surrounding the turbine arrays and reduce quickly with distance. Taking account of the iterative design process, receptor offsets, compliance with the 600 m visual amenity setback, the characteristics of the receiving landscape and the limited geographical extent of higher-order effects, the Proposed Project is not considered to give rise to significant

adverse visual effects. Overall, residual visual effects are assessed as **Not Significant in EIA terms**.

13.6 CUMULATIVE

The cumulative assessment considered existing, consented and in-planning wind energy developments within a 20 km radius of the Proposed Project. Existing and consented developments are located predominantly to the south-west of the site, with the nearest located more than 16 km away.

Under the current cumulative scenario, opportunities for combined visibility occur across portions of the study area; however, the large separation distances between developments mean that other wind farms generally appear as distinct and separate clusters with a limited visual presence. As a result, cumulative interactions are limited and do not lead to notable wind farm proliferation. The cumulative landscape and visual effect is assessed as Low magnitude and Not Significant.

The future cumulative scenario includes three additional developments, most notably Shancloon Wind Farm to the east which has recently been refused but still has the potential to be subject to a JR. While this would increase the overall presence of wind energy development within the wider landscape, the various wind farms remain spatially separate and clearly distinguishable from one another. The development would contribute to wind energy becoming a more recognisable feature of the landscape but would not create unacceptable cumulative clutter, over-concentration or a sense of being surrounded by turbines.

Under both the current and future cumulative scenarios, the Proposed Project would contribute to wind energy becoming a more recognisable feature of the wider landscape. However, cumulative developments remain clearly separated from one another and do not result in significant wind farm proliferation, visual clutter or over-concentration. As a result, cumulative landscape and visual effects are assessed as **Not Significant** in EIA terms.

14 AIR QUALITY

14.1 POTENTIAL EFFECTS

14.1.1 Construction Phase

An assessment of the potential dust impacts as a result of the construction phase of the proposed development was carried out based on the UK Institute for Air Quality Management 2024 guidance document *'Guidance on the Assessment of Dust from Demolition and Construction'*. This established the sensitivity of the area to impacts from construction dust in terms of dust soiling of property, human health and ecological effects. The surrounding area was assessed as being of high sensitivity to dust soiling, low sensitivity to dust-related human health effects and of high sensitivity to dust-related ecology effects.

The sensitivity of the area was combined with the dust emission magnitude for the site under three distinct categories: earthworks, construction and trackout (movement of vehicles) in order to determine the mitigation measures necessary to avoid significant dust impacts. It was determined that there is at most a high risk of dust related human health and ecology effects associated with the proposed development. In the absence of mitigation there is the potential for *direct, short-term, negative* and *moderate* effects on air quality.

14.1.2 Operational Phase

The generation of electricity due to the installation of the wind farm will lead to indirect net savings in terms of NO_X emissions. The supply of 150 GWh of renewable electricity to the national grid will lead to a net saving in terms of NO_X emissions which may have been emitted from fossil fuels to produce electricity and will therefore have a positive impact of on Ireland's obligations under the National Emissions Reduction Directive. This is considered an *indirect, long-term, slight, positive* effect on air quality.

14.2 MITIGATION MEASURES

Detailed dust mitigation measures, derived from the Institute for Air Quality Management 2024 guidance *'Guidance on the Assessment of Dust from Demolition and Construction'* as well as other relevant dust management guidance, are outlined within EIAR Section 14.5 of Chapter 14 and also in the Construction Environmental Management Plan (CEMP) to ensure that no significant nuisance as a result of construction dust emissions occurs at nearby sensitive receptors.

14.3 OVERALL/RESIDUAL EFFECTS

Detailed dust mitigation measures are outlined in EIAR Chapter 14 Air Quality and are also included in the CEMP (see Appendix 2-2) to ensure that no significant nuisance as a result of construction dust emissions from demolition, earthworks, construction and trackout (movement of vehicles) occurs at nearby sensitive receptors. Once these best practice mitigation measures, derived from the Institute for Air Quality Management 2024 guidance *'Guidance on the Assessment of Dust from Demolition and Construction'* as well as other relevant dust management guidance, are implemented the residual effect of construction of the proposed project will be *short-term, direct, negative and not significant* and will pose no significant effects at nearby sensitive receptors (such as local residences or sensitive ecology).

There will be beneficial impacts to air quality from the generation of renewable electricity from the proposed project. There will be NO_X emission savings which may otherwise have been generated from fossil fuels. The impact to air quality has been assessed as *indirect, long-term, slight, positive* and ***not significant***.

15 CLIMATE

The Climate assessment has focussed on:

1. GHG (Greenhouse gas) emissions from the proposed project, over its lifetime: and
2. Climate change risk assessment, that considered the proposed projects vulnerability to climate change.

15.1 EXISTING ENVIRONMENT

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and alignment with Ireland's 2030 sectoral emissions ceilings and carbon budgets. For 2025, total national emissions (including LULUCF) were 55.16 $MtCO_2e$. The current estimates of National greenhouse gas emissions (including LULUCF) in 2025 are 14.5% below 2018 levels, at considerable variance from the National Climate ambition of a 51% reduction by 2030. The data indicate that from 2021 to 2025 Ireland has used 99.6% or 293.9 $MtCO_2e$ of the 295 $MtCO_2e$ Carbon Budget for the five-year period 2021-2025. This leaves 1.1 Mt CO_2e of the budget available to be carried over into budget 2 for 2026-2030. In order to achieve Ireland's climate ambition of a 51% reduction by 2030, annual emission reductions of over 10% are required for the next 5 years.

15.2 DO NOTHING SCENARIO

The Do-Nothing assessment assumes that the proposed project is not built. In this scenario the climate emissions will remain as per the current baseline in the short-term. Renewable energy is required to ensure targets set out in CAP25 are met. Such targets include up to 80% of the national grid being generated from renewable sources including 9 GW onshore wind by 2030. In addition, CAP25 aims to phase out and end the use of coal and peat in electricity generation by 2030. The Do-Nothing Scenario is not in line with such plans.

15.3 RESIDUAL IMPACT ASSESSMENT

The impact to climate as a result of a proposed project has been assessed as a whole for all phases. The proposed project will result in some impacts to climate through the release of GHGs due to its construction.

TII (Transport Infrastructure Ireland) state that the crux of assessing significance is *"not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050".*

The proposed project has been designed to maximize its contribution to renewable electricity generation, significantly reducing climate impacts during operation. By producing clean energy, the proposed project will directly support Ireland's transition to a low-carbon economy and help mitigate climate change. The production of wind energy for export to the national grid transforms the proposed project from negative in terms of GHGs (associated with embodied energy from construction) to having a net positive annual impact on GHG emissions of at least 0.3% of the 2030 ETS GHG emissions target for Ireland in 2030. The total annual GHG emission

savings will amount to at least 34,637 tonnes of CO_2e[1], which is equivalent to 1.2% of the electricity sector budget in 2030.

ISEP guidance (2026) states "*Significance of each project lifecycle stage should be assessed (and where applicable mitigated) before reaching any overall lifecycle net effect conclusions.*" Although the construction phase has an adverse, not- significant impact on the climate, the operational phase has a more substantial positive, not-significant impact on the climate. The carbon payback for the wind turbines is 6.1 months therefore across the 35- year lifespan of the turbines, the positive impact far outweighs the adverse.

In accordance with the EPA Guidelines (EPA, 2022), the above criteria equates to an impact of GHG emissions that is ***direct*** due to its presence, that is ***long-term*** as a result of the estimated lifetime of the infrastructure, ***positive*** due to the displacement of fossil fuels through the production of renewable electricity and ***slight*** based on its overall contribution to global climate mitigation. In EIA terms, the effect of the proposed project is ***not-significant***.

With design mitigation in place, there are no residual risks to the proposed project as a result of climate change. In accordance with the EPA Guidelines (EPA, 2022), the significance of effect of the impacts to the proposed project as a result of climate change are ***direct*** as climate extremes have a direct physical effect on infrastructure, ***long-term*** due to the response times of the climate in relation to changes in anthropogenic emissions, ***adverse*** as climate extremes have been shown to damage or adversely affect infrastructure, and ***imperceptible*** due to the low vulnerability of the proposed project to the effects of climate change once mitigation measures have been embedded, which is overall ***not- significant*** in EIA terms.

[1] based on 2025 SEAI carbon intensity

16 ARCHAEOLOGICAL, ARCHITECTURAL & CULTURAL HERITAGE

16.1 INTRODUCTION

This chapter addresses the archaeological, architectural and cultural heritage resource of the proposed project, including the proposed wind farm site, Grid Connection Route (GCR) and Turbine Delivery Route (TDR). The assessment was informed by a desk-based review of available archaeological and cultural heritage records, field inspections, geophysical survey results and an assessment of the potential impacts associated with the construction, operation and decommissioning of the proposed project.

16.2 ASSESSMENT OF EFFECTS

There are six recorded monuments located within the proposed wind farm site. These include a hillfort, hut site, field system, burnt mounds, ringfort-cashel and enclosure. A total of 203 recorded archaeological sites or groups of sites are located within the wider 5 km study area, including 16 redundant records. There are also 66 recorded structures of architectural merit within the 5 km study area, 26 of which are Protected Structures, together with 66 previously unrecorded sites of cultural heritage significance. Nine National Monuments are located within the 10 km study area. One archaeological complex within the 10km study area is also subject to a Preservation Order.

16.2.1 Construction

16.2.1.1 Proposed Wind Farm Site

No direct effects are predicted on recorded archaeological, architectural or cultural heritage sites located within the proposed wind farm site that require excavation or ground disturbance. However, the Zone of Archaeological Potential associated with the field system AH79 will be crossed by an access track and will include a small on-site control building. Although no associated archaeological features were identified during geophysical survey works, buried archaeological remains may survive beneath current ground levels. Prior to mitigation, a moderate adverse effect is predicted.

The Zones of Notification associated with AH99, comprising three burnt mounds, a fulacht fia and a redundant record, will be crossed by an access track, turning head and hardstanding area. In addition, Turbine T13 is located approximately 80 m east of AH98, a recorded hillfort and associated hut site. While the known monuments themselves will not be directly impacted, there remains potential for previously unknown archaeological remains to be encountered during excavation works. Prior to mitigation, effects may range from slight to significant adverse depending on the nature and significance of any archaeological remains present.

AH78, AH96, AH97 and CH57 are located within the site boundary but outside all excavation and construction footprints and will therefore not be directly impacted.

Construction activities also have the potential to affect previously unrecorded archaeological remains within greenfield areas associated with turbine foundations, crane hardstands, access tracks, borrow pits, the temporary construction compound, substation and associated infrastructure. Prior to mitigation, effects could range from moderate to very significant depending on the sensitivity of any remains encountered.

Construction works will result in direct impacts on nine townland boundaries (TB1-TB9). Given the limited extent of disturbance and retention of adjacent sections of these features, a slight adverse effect is predicted.

16.2.1.2 Proposed Grid Connection Route

The proposed GCR will cross nine townland boundaries. With the exception of TB8 and TB9, no impacts are anticipated as most of the route is located within existing roads. The route will also pass through the Zones of Notification associated with AH85, AH123 and AH128. While no upstanding archaeological remains will be directly affected, excavation works may impact previously unrecorded associated archaeological remains. Prior to mitigation, potential effects range from slight to significant adverse.

The proposed GCR includes approximately 1.25 km of greenfield corridor. Excavation works associated with this section have the potential to impact previously unrecorded archaeological remains, including geophysical anomalies identified during survey. Prior to mitigation, effects may range from slight to significant adverse depending on the nature and significance of any remains present.

While a number of cultural heritage structures are located adjacent to the GCR, no direct impacts are anticipated as works will generally be confined to existing road corridors.

16.2.1.3 Proposed Turbine Delivery Route

The identified TDR accommodation works do not require excavation works. Consequently, no impacts are predicted on any archaeological, architectural or cultural heritage receptors.

16.2.2 Operation

16.2.2.1 Proposed Wind Farm Site

A detailed assessment of operational effects on archaeological, architectural and cultural heritage assets was undertaken using Zone of Theoretical Visibility (ZTV) mapping and photomontages. No significant operational effects are predicted for National Monuments or sites of National significance.

Significant adverse operational effects are predicted for two recorded monuments:

- **AH97**, a recorded enclosure.
- **AH98**, comprising a hillfort and associated hut site.

Both sites are of high sensitivity and are predicted to experience significant adverse indirect effects on their setting due to the visibility and proximity of proposed turbines. These effects are considered long-term but reversible, as they would cease following decommissioning of the wind farm.

Moderate adverse indirect operational effects are also predicted for a number of archaeological monuments including AH50, AH74, AH75, AH78, AH79, AH80, AH81, AH82, AH87, AH99, AH100, AH105, AH109, AH110, AH113, AH164 and AH171. Remaining effects are assessed as slight or imperceptible.

16.2.2.2 Proposed Grid Connection Route

No operational effects are predicted as a result of the proposed GCR.

16.2.2.3 Proposed Turbine Delivery Route

No operational effects are predicted as a result of the proposed TDR.

16.3 MITIGATION

16.3.1 Construction

Prior to construction, the Proposed Project will be subject to targeted archaeological test trenching under licence from the National Monuments Service. This will include works associated with AH79, AH99 and targeted areas identified during geophysical surveys. Where archaeological remains are identified, additional mitigation measures, including preservation by record or preservation in situ, will be implemented as required.

All works affecting townland boundaries will be subject to archaeological monitoring and full recording. Archaeological monitoring will also be undertaken where the proposed GCR passes through Zones of Notification associated with recorded monuments.

16.3.2 Operation

No additional mitigation measures are available to address indirect effects on the setting of archaeological, architectural and cultural heritage features beyond those already incorporated into the design and layout of the Proposed Project. Any effects on setting are not permanent and would cease following decommissioning of the wind farm.

16.4 RESIDUAL EFFECTS

Following mitigation, no significant residual effects are predicted on previously unrecorded archaeological remains, architectural heritage features or cultural heritage assets during construction. Any archaeological remains encountered during monitoring or test trenching will be appropriately recorded or preserved.

Residual significant effects will remain in relation to impacts on the setting of certain archaeological sites, most notably AH97 and AH98. These effects are long-term but not permanent and would ultimately be removed following decommissioning of the turbines. **No significant** cumulative effects are predicted on the archaeological, architectural or cultural heritage resource.

17 TRAFFIC AND TRANSPORT

17.1 ASSESSMENT OF EFFECTS

It is anticipated that the largest construction traffic impact would occur in 2029. The maximum construction workforce on site will be approximately 120 personnel with the average being 60 staff.

The following junctions on the road network in the vicinity of the proposed wind farm site were assessed for the construction and operation phases, namely:

- Junction 1: R334/ L1615 Priority-Controlled Staggered Crossroads
- Junction 2: R334/ L5666/ Toorard Priority-Controlled Crossroads
- Junction 3: R334/ Church Road/ N84 Signal-Controlled Crossroads
- Junction 4: R334/ Northern Site Access Priority-Controlled T-Junction
- Junction 5: R334/ Southern Site Access Priority-Controlled T-Junction
- Junction 6: N84/ L2104 Junction

All junctions are predicted to operate within capacity without the development. The further analysis required for the effect of the development traffic shows a satisfactory level for the construction phase.

Given the temporary nature of the peak construction phase, the overall effect of the construction phase is considered short-term and not significant.

The effect of the Abnormal Indivisible Load (AIL) deliveries on the existing road network has been assessed based on the longest component to be delivered to the proposed wind farm site, the turbine blade. The route has been assessed from Galway Harbour to the proposed wind farm site. The swept path analyses typically indicate locations where temporary works are required to accommodate the component deliveries, referred to as nodes. These works will result in relatively low volumes of traffic similar to maintenance works by the Local Authority and will be undertaken for a short period of time. Minor advanced works have been identified along the route including temporary hardstanding areas, temporary removal or relocation of existing signage, and pruning of vegetation. All these temporary works are reversible, and the nodes will be reinstated to their original condition.

It is anticipated that the grid connection works will progress by approximately 200 m per week, with no more than 100 m of trench open at any one time. The proposed GCR works will require a temporary road closure of local roads and a temporary lane closure of regional roads for trenched crossings and the longitudinal cable run. The trench will be suitably backfilled at the end of the working day, with the provision of suitable temporary surfacing material, as may be requested by the local authority. Such closures will only be undertaken following consultation with the local authority and following any requests for notifications by the local authority. A road opening licence will also be applied for the principal contractor to the local authority.

Due to the temporary lane and road closure required during the grid connection advanced works, the proposed GCR will have a moderate effect on the road network.

The junctions analysed are predicted to operate within capacity and at a satisfactory level for the operation stage.

The overall effect of the operational phase is considered imperceptible.

The decommissioning phase would be similar to the construction phase.

The turbine removal would be similar to the AIL deliveries and hence the same effects.

17.2 Mitigation

17.2.1 Construction Phase

During the project design development, embedded mitigation was a fundamental part of the design process. This included the construction phase of the proposed project.

To allow the vehicles to travel on some of the roads of narrower width, temporary traffic management operations will be required. A comprehensive Traffic Management Plan (TMP) has been prepared.

A Construction & Environmental Management Plan (CEMP) is included which includes further mitigation.

Pre and post construction pavement surveys will be carried out to determine any road deterioration that needs to be rectified.

17.2.2 Operational Phase

No mitigation measures are required during the operation phase as very few operational (maintenance) staff are required on site resulting in minimal traffic movements that would be no more than typical existing/ agricultural use.

17.2.3 Decommissioning Phase

During the project design development, embedded mitigation was a fundamental part of the design process. This included the decommissioning phase of the proposed project.

To allow the vehicles to travel on some of the roads of narrower width, temporary traffic management operations will be required.

17.3 Residual Effects

Most mitigation measures proposed (e.g. wheel washing, temporary car park, site entrance gate setback, etc.) are embedded measures to offset any likely significant effects of the proposed project.

Traffic analysis shows that there is no significant change in current traffic delay at the junctions analysed and the wind farm will not alter this significantly.

17.3.1 Construction Phase

The residual traffic effects of the proposed project for the Construction Phase (including the TDR and GCR) will be short-term and **not significant**.

17.3.2 Operational Phase

The residual traffic effects of the proposed project for the Operational Phase will be imperceptible and not significant.

17.3.3 Decommissioning Phase

The residual traffic effects of the proposed project for the Decommissioning Phase (including the TDR) will be short-term and not significant.

18 MAJOR ACCIDENTS AND NATURAL DISASTERS

18.1 Overall Effects

This chapter examines the potential for major accidents and natural disasters to affect the proposed project, and whether it could give rise to a major accident or disaster during the construction, operational or decommissioning phases. The assessment considered events that could cause significant environmental effects, damage to infrastructure, disruption to services, or risks to human health and safety.

18.2 Assessment of Effects

The assessment was carried out using a recognised risk-based approach and considered both natural hazards and accidental events that could realistically occur during the lifetime of the project. A range of potential risks were identified and reviewed, including flooding, landslides, fire, extreme weather events, traffic accidents, damage to infrastructure, aviation safety, climate change effects and ice throw from turbine blades.

Many of these risks were assessed elsewhere within the EIAR, including flood risk, climate change, land stability, aviation and infrastructure assessments. Following review, only a limited number of potential risks were identified as requiring detailed assessment. These included:

- Damage to existing infrastructure during construction activities;
- Major traffic accidents associated with construction traffic;
- Damage or collapse of wind farm structures or electrical infrastructure; and
- Potential injury from ice falling from turbine blades during periods of freezing weather.

The assessment concluded that these events are unlikely to occur and that the likelihood and consequences of such events can be effectively managed through project design, construction controls and operational safety measures.

The project is not located within an area at significant risk of flooding and is not vulnerable to coastal flooding. No significant risk from landslides, earthquakes or nearby Seveso (COMAH) sites was identified. Climate change risks, including extreme weather events, were also assessed and found to be low following the implementation of standard mitigation measures and engineering design standards.

18.3 Mitigation Measures

A range of mitigation measures have been incorporated into the project design and will be implemented throughout the construction, operation and decommissioning phases, including:

- Preparation and implementation of a Construction Environmental Management Plan (CEMP);
- Implementation of a Traffic Management Plan (TMP) to manage construction traffic and abnormal load deliveries;
- Detailed pre-construction surveys and service checks to identify underground and overhead infrastructure;

- Design of turbines and associated infrastructure in accordance with relevant engineering and safety standards;
- Turbine safety systems, including automatic shut-down systems during extreme weather conditions;
- Modern turbine ice detection and vibration detection systems to minimise the risk of ice accumulation and ice throw; and
- Emergency response procedures and ongoing safety management throughout the life of the project.

18.4 Residual Effects

Following implementation of the proposed mitigation measures, all assessed risks were classified as low risk. The assessment found that the proposed project is not particularly vulnerable to major accidents or natural disasters and is not likely to cause significant environmental effects arising from such events.

No significant residual effects are predicted during the construction, operational or decommissioning phases of the project. There are also no significant cumulative effects predicted in combination with other existing or proposed developments in the area.

Overall, the assessment concludes that, with mitigation measures in place, effects associated with major accidents or natural disasters are **not significant**.

19 INTERACTION OF THE FOREGOING

The Environmental Impact Assessment considered not only the individual environmental topics assessed within the EIAR, but also the potential for interactions between environmental factors. These interactions may occur where one environmental effect influences another, either positively or negatively. The assessment of interactions is presented in Chapter 19 of the EIAR.

A matrix was prepared to identify environmental factors with the potential to interact during the construction, operational and decommissioning phases of the proposed project. Potential interactions were identified at an early stage of the design process and were considered by the relevant specialists as part of their environmental assessments.

The most notable interactions identified relate to population and human health, biodiversity, land, soils and geology, hydrology and hydrogeology, noise and vibration, air quality and climate, landscape and visual effects, traffic and transportation, and material assets. Potential interactions between these environmental factors were assessed as part of the relevant EIAR chapters.

The proposed project will result in positive effects through the generation of renewable electricity, contributing to national renewable energy targets and enhancing energy security. Additional positive effects are anticipated through local employment opportunities and the establishment of a Community Benefit Fund to support local initiatives and community projects.

The assessment concluded that, following the implementation of the proposed mitigation measures, significant cumulative or synergistic effects arising from interactions between environmental factors are not anticipated. No additional interactions beyond those identified and assessed in the EIAR are predicted to result in significant adverse effects. Overall, the interactions between environmental factors are not predicted to give rise to significant adverse effects.



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