

# Inspector's Report ABP 318505-23

Development	Proposed construction of a 110kV underground grid connection cable connecting the permitted Carrownagowan windfarm to the existing 110kV substation at Ardnacrusha.
Location	Within the townlands of Caherhurly, Killokennedy, Cloongaheen West, Leitrim, Castlebank, Ballykeelaun, County Clare.
Planning Authority	Clare County Council.
Applicant(s)	FuturEnergy Carrowngowan DAC.
Type of Application	Electricity Development - S.182(A)
Prescribed Bodies	Department of Housing, Local Government, and Heritage. Transport Infrastructure Ireland Clare County Council
Observer(s)	Brendan Sweeney Carrownagowan Concern Group Ute and Konrad Rumberger

Date of Site Inspection

Inspector

25<sup>th</sup> November 2024

Brendan Coyne

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# 1.0 Introduction

1.1.1. An application under the provisions of Section 182A of the Planning and Development Act 2000 (as amended) was received by An Bord Pleanála from FuturEnergy Carrownagowan DAC for the construction of a 110kV underground grid connection cable, connecting the permitted but not yet constructed Carrownagowan Wind Farm substation (ABP Ref. 308799-20) to the existing ESB-owned 110kV substation at Ardnacrusha in County Clare. Following pre-application consultation on the 20<sup>th</sup> of October 2022, the Board determined (under An Bord Pleanála Ref. 314127-22) that the proposed development falls within the scope of Section 182A of the Planning and Development Act, 2000 (as amended), and that the application should be made directly to the Board.

# 2.0 Site Location and Description

- 2.1.1. The proposed 110kV underground grid connection cable extends c.25km, linking the Carrownagowan Wind Farm substation (permitted under ABP Ref. 308799) with the existing 110kV Gas Insulated Substation (GIS) at Ardnacrusha in County Clare. The cable route begins at the Carrownagowan substation within the townland of Caherhurly, where the cable will be laid for c. 4.2 km before continuing along 0.89 km of existing internal access wind farm roads. Following this, the cable extends across c. 2.3 km of third-party lands before connecting with the L7004 road. The route then travels east/south-eastwards through Kilbane and continues southwards before connecting with the R466 regional road, where the route then extends along the L3046 before connecting with the R465, where it travels in a southerly direction towards and through Ardnacrusha village, where the cable route then connects with the Ardnacrusha substation, located on the southwestern side of the village.
- 2.1.2. The route runs through a series of townlands, including Caherhurly, Killokennedy, Cloongaheen West and East, Kilbane, Killeagy (Goonan), Ballymoloney, Cloonygonry Beg, Ballyquin Beg, Ballyquin Mor, Springmount, Leitrim, Fahy More (South), Aharinaghmore, Ballybrack, Tooreen, Aharinaghbeg, Cloghera, Trough, Knockdonagh, Roo West, Lakyle, Glenlon South, Castlebank, and Ballykeelaun, before ending at the Ardnacrusha substation. The cable route extends through mostly

rural areas, characterised by coniferous forestry at the northern section within the windfarm site, agricultural fields, rural dwellings, and urban development in Ardnacrusha village.

# 3.0 **Proposed Development**

- 3.1.1. The applicant, FuturEnergy Carrowngowan DAC, seeks permission under Section182A of the Planning and Development Act 2000 (as amended) for the following:
  - A c. 25km long 110kV underground grid cable connection from the permitted Carrownagowan Wind Farm substation (permitted under ABP Ref. 308799-20) to the existing ESB-owned 110kV substation at Ardnacrusha, County Clare.
  - The development will allow the electrical energy generated from the wind farm to be exported to the national grid, along with all associated site development works, including:
    - 9 no. watercourse crossings: 8 no. to be completed by means of Horizontal Directional Drilling (HDD), requiring service trenches (launch pits) for the drill in the road on either side of the watercourses, and 1 no. crossing to be completed by an over-bridge solution; and
    - 35 no. joint bays and communication chambers along the route.
- 3.1.2. An Environmental Impact Assessment Report has been prepared for the proposed development and is submitted with the application.

#### 3.1.3. Submitted Documentation

- 3.1.4. The following documents are submitted with the application:
  - Completed Application Form
  - Planning Report
  - Letters of consent from Landowners
  - Planning application drawings
  - Copy of Newspaper notices and Site Notice
  - Copy of pre-application Determination

- Schedule of Prescribed Bodies notified of the application
- Copy of the confirmation notice to the national EIA Portal
- Environmental Impact Assessment Report (EIAR)
- Screening for Appropriate Assessment Report (Appendix (6-1)
- Appendices to the EIAR include the following: Consultation Letter (Appendix 1-1), List of Consultees (1-2), Carrownagowan Wind Farm Newsletter (1-3), EIAR Scoping Report (1-4), Planning History Search (1-5), Cultural Heritage Documents (10-1 to 10-6), Construction Methodology (2-1), Construction Environmental Management Plan (2-2), Traffic Management Plan (2-3), Biological Sampling Results (6-2), Invasive Alien Species Management Plan (IASMP) (6-3), and Surface Water Samples Report (7-1).
- 8 no. Memory sticks with a copy of all application documents

# 4.0 **Consultations**

- 4.1.1. Details of the application were circulated to the following Prescribed Bodies and Local Authority:
  - Minister for the Environment, Climate and Communications
  - Commission for the Regulation of Utilities (CRU)
  - Inland Fisheries Ireland
  - Transport Infrastructure Ireland
  - Heritage Council
  - An Taisce
  - Comhairle Ealaíon (The Arts Council)
  - Failte Ireland
  - Health & Safety Authority
  - Clare County Council

# 5.0 Clare County Council Submission

#### 5.1. Submission received on the 22<sup>nd</sup> January 2024

- 5.1.1. Issues raised for consideration, include the following:
  - Summary provided of relevant Development Plan policies including support for development in settled landscapes (S.14.2), protection of scenic routes (S.14.7), encouragement of renewable energy projects in accordance with national strategies (Sections 11.47 and 11.48), and the use of the Ardnacrusha Hydroelectric Power Station to strengthen the national grid (S.2.22).
  - Reference to An Bord Pleanála permission Ref 308799-20, where 10-year permission was granted to Coillte for the development of 19 no. wind turbines, 1 no. meteorological mast, a 110kv substation and all associated site works.
  - The Screening for Appropriate Assessment omits potential impacts on the Lower River Shannon SAC (Site Code 002165), which is within the 5km Zone of Influence and hydrologically connected to the proposed development. This omission may undermine the validity of the assessment.
  - A T1 Road License is required for the entire project, with T2 Licenses necessary for individual sections of the project as it progresses.
  - The Planning Authority recommends a €500,000 bond to ensure the preservation of the road network and the appointment of a Council Clerk of Works to supervise the project.
  - The applicant should appoint a Community Relations Officer to communicate with the local community.
  - The proposed development should comply with Standard Drawing SD4 of the *Guidelines for Managing Openings in Public Roads*, specifically regarding the reinstatement of regional and local roads.
  - There should be full junction reinstatement at all road junctions and route changes.
  - Local roads should receive double surface dressing, to be completed by an approved contractor.

- Sections of roads in marshy or peat areas should be capped and surfaced with reinforced materials approved by the Council.
- Regarding road closures, the Council requires advertisement in advance with diversion dates provided. There shall be no closure of the regional road R-466.
- Traffic from regional roads cannot be diverted to local primary roads.
- Pre-condition and post-condition surveys of all bridges, culverts, and pipelines along the route shall be carried out. Damage to structures requires immediate notification to the Council and full replacement.
- The proposed route intersects with the East Clare Way for 4.7km. The route shall maintain unobstructed and safe access for walkers throughout any construction.
- Given that the route passes through the zoned area of Ardnacrusha, the Council recommends the Board consider requiring the provision of footpaths where currently limited as a community gain condition.
- Approximately 22,000m<sup>3</sup> of soil/spoil will be excavated. All surplus materials should be exported to licenced/permitted facilities.
- The proposal is supported by the Development Plan Policy and the Wind Energy Strategy. However, consideration should be given to protecting residential amenities, natural heritage, recreational amenities, and infrastructure in the area.

#### 5.2. Submission received on 19<sup>th</sup> February 2024

5.2.1. The Planning Authority confirms that it has reviewed and considered the documentation received and does not wish to make a further submission.

# 6.0 **Prescribed Bodies**

#### 6.1. **Department of Housing, Local Government, and Heritage**

 The Department has reviewed the Archaeological Impact Assessment included in the Environmental Impact Assessment Report (EIAR), prepared by JAC Ltd. (Chapter 10, November 2023), and concurs with the overall findings on archaeology and cultural heritage.

- The Department recommends that all archaeological and cultural heritage mitigation measures in Chapter 10 of the EIAR be implemented fully unless otherwise specified in the Order's conditions.
- The Construction Environmental Management Plan (CEMP) should include detailed mapping of archaeological and cultural heritage constraints and describe both direct and indirect impacts, as well as all mitigation measures to be adopted during site preparation and construction phases.
- A final archaeological report documenting all archaeological monitoring, investigations, and any excavation results should be submitted to the Planning Authority and the National Monuments Service upon completion. The developer should bear the full costs of all archaeological work and associated analyses.
- The Department references Article 6 of the Habitats Directive (92/43/EEC), reminding the Board of the requirement to authorise development only if it is certain that no adverse impacts on European sites' integrity will occur.
- The Department notes that specific conservation objectives are identified for Glenomra Wood SAC (Site Code: 001013), including maintaining the favourable conservation condition of old sessile oak woods, which is sensitive to invasive species and should be accurately represented in all screening documents.
- The Department notes that the AA screening report incorrectly states that no specific conservation objectives exist for Glenomra Wood SAC. However, site-specific objectives are available and should be considered.
- The Department notes that while the screening document correctly states, "Glenomra Wood SAC qualifying interest is sensitive to pressures and threats such as invasive alien species," it does not assess this issue further. Instead, the only potential impact considered is "surface water runoff and discharges from construction working areas, including occasional pumping to dewater excavations." The Department advises that the risk of invasive species introduction during construction should also be evaluated.
- The Department points out a discrepancy in the CEMP, which incorrectly states that no portion of the development is located within a SAC. Approximately 350 metres of the public road included in the project route is within the boundary of Glenomra Wood SAC.

- The Department recommends that pre-construction Otter surveys be conducted in all suitable foraging/breeding habitats impacted by the works.
- The Department notes that there is potential for the loss of up to 30 metres of treeline habitat at the northern section, and that bat roost suitability should be assessed prior to the removal of any mature trees in this area.
- The Department notes that the direct impact on degraded upland blanket bog at the northern extent of the development site should be minimised by using stakes and fencing to restrict access to designated work areas. Furthermore, as per the National Biodiversity Action Plan's objective to prevent biodiversity loss, the EIAR should detail how the project will avoid contributing to net biodiversity loss.

#### 6.2. Transport Infrastructure Ireland (TII)

- TII's submission states that the proposed development would not directly impact the national road network. However, the documentation submitted does not make clear if abnormal loads would occur, and specific haul routes to the site have not been identified. This may result in indirect impacts on the national road network that require consideration.
- Recommended that if there are abnormal loads, the transporting operator of vehicles or load exceeding limits under the Road Traffic Regulations 2003 must obtain permits from the relevant Local Authority,
- The applicant should verify the capacity of national roads along the proposed route for any abnormal loads.
- Applicant should consult with PPP Companies, MMaRC Contractors and relevant road authorities to discuss operational requirements and delivery schedules to protect the national road network.
- The developer should consult with TII in advance if any work is required within an MMaRC Contract Boundary. A Deed of Indemnity Would be required prior to the commencement of development.
- Where the proposed development requires modifications to the national road network, it must comply with TII Publications and undergo a Road Safety Audit.
- Any agreements established with the road authority, PPP Concessions and MMaRC Companies should be referred to TII.

- Any proposed mitigation measures should be imposed with any grant of permission.
- Any damage to roads shall be repaired in accordance with TII Pavement Standards and agreed upon by the Road Authority prior to the commencement of development.

# 7.0 Third Party Submissions

- 7.1.1. Submissions were received from the following:
  - Brendan Sweeney, Kilbane, Broadford, Co. Clare.
  - The Carrownagowan Concern Group, East Clare.
  - Ute and Konrad Rumberger, Carrownakilly, Killaloe, Co. Clare, supported by twelve others.
- 7.1.2. In the interest of brevity and clarity, I have summarised the key issues raised under the following topic headings below:

#### 7.2. Location and Environmental Suitability

- The proposed development is located within a peat bog near the Slieve Bearnagh SAC, which is not suitable for such type of development given the environmental sensitivity of the area.
- Construction near the SAC would potentially cause ecological damage, contrary to EU-designated protection.

#### 7.3. Water Pollution and Hydrological Impact

- Drilling roads close to Kilbane village risks contaminating wells, which are water sources, and causing structural damage.
- The opening of roads and excavations along the grid connection route threatens water quality in sensitive areas.
- There is the potential risk of pollution at stream crossings. Insufficient protective measures are proposed in the EIAR.

#### 7.4. Traffic and Road Suitability

- The narrow local roads along the route, characterised by protected sod stone ditches and hedges, do not have the capacity to handle the increased construction traffic safely.
- The Protected Structure Kilbane Bridge would be at risk from drilling and heavy construction vehicles.
- The road network serving the proposed development, including the R466 and R471, would cause road blockages and disruption, resulting in narrow rural roads being used.

#### 7.5. Ecological and Wildlife Concerns

- The EIAR adequately assesses the impact of the proposed development on the hen harrier population, particularly in relation to disturbance caused by construction near nests, habitat destruction, and afforestation.
- The EIAR does not fully evaluate cumulative impacts on hen harriers and other protected species.
- The proposed habitat mitigation measures, including replacement habitats, are inadequate in terms of size and suitability for hen harrier species.

#### 7.6. CO<sub>2</sub> Emissions and Climate Impact

- The environmental impact of CO<sub>2</sub> emissions from excavations and trenching has not been adequately addressed in the EIAR.
- The use of SF6 in wind turbine switchgear in the permitted wind farm is a potent greenhouse gas that undermines the project's "green" credentials.
- Rare earth elements are used in wind turbines which are sourced from ethically and environmentally questionable sources, such as mining in China.

#### 7.7. Community Consultation and Engagement

- There was a lack of adequate consultation with the local community, particularly during the pandemic. This left many residents unaware of the proposed grid connection.
- There were limited consultations and insufficient engagement on previous wind farm applications in the area.

#### 7.8. Heritage and Cultural Concerns

- The proposed grid connection poses a threat to adjacent Protected Structures such as Kilbane Bridge and nearby cultural sites such as Megalithic Tombs and Holy Wells.
- The proposed mitigation measures, such as directional drilling, would be insufficient to protect these sites from potential damage caused during construction.
- The proposed development would cause disruption to roads along scenic and culturally significant routes, affecting tourists and residents.

#### 7.9. Cumulative Project Impacts

- The EIAR lacks a full assessment of cumulative environmental impacts from other permitted or proposed wind farms in the area.
- Concurrent construction of the proposal and nearby projects would intensify traffic and hydrological issues, causing long-term disruptions to the local community and ecosystems.
- There is inadequate mitigation measures proposed for cumulative effects.

# 8.0 Applicants Response to Submissions Received:

8.1.1. The applicant, represented by Malachy Walsh and Partners, responded to the submissions received. The response addresses the comments and issues raised in the submissions from the prescribed bodies and third-party submissions. The response is summarised under the respective headings below.

#### 8.1.1.1. Re. Submission from Brendan Sweeney

- Horizontal Directional Drilling would prevent interaction with the watercourses and the Protected Structure Kilbane Bridge, as detailed in the EIAR.
- Construction methods would follow EirGrid specifications and requirements and not affect wells, houses, or properties.
- Community consultation, as detailed in the EIAR, included door-to-door visits, newsletters, and engagement with residents by two community liaison officers.
- The EIAR and Traffic Impact Assessment (Appendix 2-3) outline construction traffic management plans.
- Traffic measures would be approved in advance by Clare County Council and An Garda Síochána, where road opening licences are required.
- A Community Liaison Officer would coordinate with the local authority, residents and businesses in the surrounding area.
- The cable trench along the L3046 road through Glenomra Wood SAC would not impact the European Site, as detailed on Drawings 05641-206 & 207.
- Trenching works would be completed in phases and during suitable weather to prevent water accumulation in trenches. Each section of road opened would backfill daily to avoid runoff or contamination on Glenomra Wood SAC.

#### 8.1.1.2. **Re. Submission from Transport Infrastructure Ireland (TII)**

- The construction of the proposed grid connection would not result in abnormal loads as they would run entirely under regional and local roads.
- The applicant confirms they would comply with TII's recommendations, including obtaining permits for transporting abnormal loads and consulting with PPPs, MMaRC contractors and road authorities.
- The development would adhere to TII's standards and publications.
- The applicant confirms that the development would comply with the mitigation measures outlined in the EIAR if these are planning permission conditions.

# 8.1.1.3. Re. Submission from the Department of Housing Local Government and Heritage (DHLGH)

- The DHLGH correctly highlights an error in the CEMP, which incorrectly states that the proposed development is not within a SAC. However, the biodiversity chapter accurately identifies c. 350m of a public road within the Glenomra Wood SAC.
- The conclusion of the AA Screening Report remains valid as the grid cable would be confined to the public road and not the SAC habitat.
- An Invasive Species Management Plan was submitted with the application, which found no invasive species present along the 350m section of the grid route within the SAC.
- Construction works would avoid interactions with any invasive species present, and their location would be marked prior to the commencement of development to prevent disturbance.
- The applicant confirms that the correct version of the site-specific conservation objectives was considered when preparing the AA Screening report. However, the reference to generic objectives was incorrect.
- The routing of the cable was selected to avoid designated conservation areas and minimise habitat loss.
- Upland blanket bog habitats along 40m of the grid route have been drained and degraded and are of importance at local level. Residual effects would not be significant.
- The DHLGH is broadly in agreement with the finding of the EIAR and the applicant has no issues with the recommendations.

#### 8.1.1.4. **Re. Submission from Clare County Council**

- The Zone of Influence (ZOI) was set at 5 km based on the nature, scope, scale, location, known impacts and effects and distance from Natura 2000 sites.
- No instream work is proposed, and the nearest waterway with a pathway to the Lower Shannon SAC is over 5 km downstream, eliminating the risk of impacts on the conservation objectives of the SAC.

- All spoil material would be exported to a licensed facility.
- Several licensed facilities are listed in the EIAR to receive exported material. As such, no single facility would receive large quantities of material.
- Clare County Council's requirements regarding road closures will be met and agreed upon via the Road Opening Licence process.
- A grid route would run along 1km of the R466. If a road closure is not viable, then a stop-go system may be used, subject to agreement with the Council.

#### 8.1.1.5. **Re. Submission from Carrownagowan Concern Group**

- The images presented in the submission relate to localised drain/soil erosion within the wider forest plantation, which has no relevance to the proposed grid route.
- Minor changes were made to the grid route changes in the current application since the parent permission application. The conclusions of the EIAR and AA in the parent planning permission do not change in light of these minor changes.
- The revised underground grid connection would not negatively impact the habitation and hen harrier protection measures in the wind farm EIAR.
- The grid route required no bird surveys due to the underground cable's lack of likely significant effects.
- The parent permission EIAR for the wind farm included an assessment of the grid connection impacts. The minor deviations of the proposal do not alter the assessment of the parent permission EIAR. The mitigation measures in the EIAR for hen harriers and their habitats would remain effective.
- Concerns raised regarding impacts on wild birds outside SPAs and the risk of peat slides were addressed in the EIAR of the parent permission and are not relevant to the proposed development.

#### 8.1.1.6. **Re. Submission from Ute and Konrad Rumberger and others**

• Impacts on landscape and visual amenities during construction would be localised and temporary. There would be no impact during operation.

- Noise mitigation measures for the construction phase are detailed in Chapter 9, Section 9.5 of the EIAR.
- No noise mitigation measures are required for the operational phase as the cable would be underground.
- Potential cumulative noise and traffic impacts are addressed in Section 9.4.4.3 of the EIAR.
- The developer would consult and agree with the Local Authority through the Road Opening Licence process to mitigate overlapping construction activities.
- The EIAR included a cumulative assessment with other wind farm developments within a 10km radius, as listed in Appendix 1-5, Volume III of the EIAR. The only wind farm included was the Fahybeg Wind Farm, as other developments were not in the planning system at the time of preparing the EIAR.
- The EIAR identified two group water schemes and abstraction points within 5km of the proposed development and 12 no. mapped wells within 2km of the grid connection route. The EIAR demonstrates there would be no likely significant effects on groundwater or private wells.
- The application was submitted to An Bord Pleanála as a Strategic Infrastructure Development (SID) under Section 182A of the Planning and Development Act 2000. SID pre-application consultation processes were followed, and An Bord Pleanála confirmed the proposed development is a SID on the 04<sup>th</sup> April 2023.
- Details of civil engineering works and materials are detailed in Chapters 2 and 3 of the EIAR
- Materials would adhere to EirGrid's specifications.
- Lead materials would not be used.
- Chapter 10 of the EIAR lists cultural heritage assets near the project and details mitigation measures to prevent impacts on these assets.
- Population and human health impacts are assessed in Chapter 5 of the EIAR, which includes Kilbane and Ardnacrusha.
- Community consultation included a newsletter delivered to residents in the locality before the application was lodged.

- Based on GSI mapping, the EIAR details that groundwater vulnerability along the proposed route ranges from low to extreme. Appropriate mitigation measures are proposed to minimise impacts on groundwater.
- Overall traffic impacts from construction waste removal are assessed in the EIAR as temporary and negligible. Traffic management measures are proposed, including full road closures, diversions, and reinstatement of pavement where necessary.
- Dust and exhaust emissions are assessed in the EIAR as temporary and imperceptible during the construction phase.
- The proposal would have a long-term positive impact on air quality from the operational phase due to renewable energy transmission, as outlined in Section 11.4.2.1 of the EIAR.
- The grid route is over 6 km from the Lough Derg SPA and is not within the Zone of Influence due to the nature, scope, scale and location of the proposed works and the lack of functional hydrological connectivity.
- The EIAR addresses potential effects on biodiversity, noise, and landscape impacts in their relevant chapters. The EIAR concludes that there would be no significant effects from the grid connection during construction or operation.

# 9.0 **Planning History**

9.1. Subject Site:

#### 9.1.1. Carrownagowan Windfarm and Substation (Starting point)

**ABP Ref. 308799-20** – Coillte was granted permission on the 29<sup>th</sup> of September 2022 for the development of 19 no. wind turbines, 1 no. meteorological mast, a 110kV substation, and all associated site development works. The development is located in the townlands of Ballydonaghan, Caherhurley, Coumnagran, Carrownagowan, Inchalaghtoge, Killokennedy, Kilbane, Coolready, and Drummod, Co. Clare.

Note: This permission is currently subject to judicial review proceedings.

#### 9.1.2. Ardnacrusha Substation (end point)

**PA Ref. 072029** – Permission was granted on the 22<sup>nd</sup> of October 2007 for ESB to erect a new 110kV single circuit cable end mast outside the Ardnacrusha Sud Station compound, with the mast reaching a height of 16.25m.

**PA Ref. 08102** – Permission was granted to EirGrid on the 20<sup>th</sup> of April 2008 for alterations to the existing 110kV Ardnacrusha Station, including the installation of a capacitor bank, surge arrestors, and chainlink screening, along with other ancillary works.

**PA Ref. 091235** – Permission granted on the 1<sup>st</sup> March 2010 to EirGrid to install a new capacitor bank, reactors, and safety equipment on the 110kV MTS line at the Ardnacrusha Station. The development included alterations to the compound fencing and other ancillary works.

**PA Ref. 12137** – EirGrid was granted permission on the 31<sup>st</sup> May 2012 for the construction of a 110kV GIS substation, installation of associated switchgear, and relocation of storage buildings at the Ardnacrusha Power Station.

**PA Ref. 13349** – Permission was granted on the 30th of September 2013 to EirGrid for modifications to previously approved developments adjacent to the existing 110kV station within the Ardnacrusha Power Station complex.

#### 9.1.3. Fahybeg Wind Farm

**PA Ref. 23148 and ABP Ref. ABP 317227-23** – Permission granted on appeal on the 6<sup>th</sup> March 2024 to RWE Renewables Ireland Ltd. for the development of an 8-turbine wind farm with an underground grid connection and associated infrastructure across multiple townlands, including Fahy Beg, Ballymoloney, and Leitrim, Co. Clare. The development proposal includes installation of turbines, a substation, and temporary works for turbine delivery. An EIAR and NIS accompanied the application. Note: This permission is currently subject to judicial review proceedings.

# 10.0 Relevant Legislation

#### 10.1.1.1. Section 182A(1) of the Planning and Development Act 2000 (as amended)

10.1.2. Part XI of the Planning and Development Act 2000 (as amended) refers to 'Development by Local and State Authorities, etc.' whereunder Section 182(1), sets out the requirements for projects related to 'electricity transmission lines' as follows:

'182A.—(1) [Subject to subsection (1B) and section 182AA, where] a person (hereafter referred to in this section as the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, (hereafter referred to in this section and section 182B as 'proposed development'), the undertaker shall prepare, or cause to be prepared, an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly.'

#### 10.1.2.1. Section 182A(2)

10.1.3. Refers to the fact that if a development falls within a class requiring an EIAR under Schedule 5, an EIAR is mandatory.

'In the case of development referred to in subsection (1) which belongs to a class of development identified for the purposes of section 176, the undertaker shall prepare, or cause to be prepared, an environmental impact assessment report or Natura impact statement or both that report and that statement], as the case may be,] in respect of the development'.

#### 10.1.3.1. Section 182A(4)(i)(II):

10.1.4. Refers to the requirement for an EIAR or Natura Impact Statement:

'in the case of an application referred to in subsection (1)(a), an environmental impact assessment report or Natura impact statement or both that report and that statement, as the case may be, has been prepared in respect of the proposed development, and'.

#### 10.1.4.1. Section 182A(9)

10.1.5. Defines "transmission" for electricity projects, aligning it with definitions from the Electricity Regulation Act 1999: '(9) In this section 'transmission', in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of— (a) a high voltage line where the voltage would be 110 kilovolts or more, or (b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not.'

10.1.6. The proposed development, comprising a 110kV underground grid connection cable, falls within the remit of Section 182A as an electricity transmission project involving high-voltage lines.

#### 10.1.6.1. Section 2(1) of the Electricity Regulation Act, 1999

10.1.7. Defines 'Transmission, in relation to electricity' as:

'the transport of electricity by means of a transmission system, that is to say a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board.'

# 11.0 Policy and Context

#### 11.1. Development Plan

11.1.1. Clare County Council Development Plan 2023-2029 is the statutory plan for the area.The following Development Plan policy and provisions are considered relevant:

#### **Chapter 2 Climate Action**

Table 2.2 Renewable Energy Resource Targets for County Clare to 2030CDP2.1 Climate Action

CDP2.2 Climate Change Mitigation, Adaptation and Resilience

CDP2.14 Transition to a Low Carbon Economy and Society CDP2.22 Ardnacrusha Hydroelectric Power Station **Chapter 3 Core Strategy** CDP3.3 Appropriate Assessment, Strategic Environmental Assessment and Strategic Flood Risk Assessment Chapter 4 Urban and Rural Spatial Strategy Map 4B Areas of Special Control **Chapter 6 Economic Development and Enterprise** CDP6.17 Energy Supply CDP6.18 Green Technology **Chapter 8 Rural Development and Natural Resources** CDP8.12 Renewable Energy Development **Chapter 9 Tourism** Map 9A Tourism Corridors Chapter 11 Physical Infrastructure, Environment and Energy CDP11.40 Noise Pollution CDP11.41 Air Quality CDP11.42 Light Pollution CDP11.44 Energy Security CDP11.45 Electricity Networks CDP11.47 Renewable Energy CDP11.48 Renewable Energy Strategy Chapter 14 Landscape Figure 14.1 Map of Landscape Character Types Figure 14.2 Map of Landscape Character Areas CDP14.2 Settled Landscapes CDP14.7 Scenic Routes Map 14A Landscape Designations Chapter 15 Biodiversity, Natural Heritage and Green Infrastructure CDP15.1 Biodiversity

CDP15.2 Natural Heritage, Biodiversity and Built Heritage Assets

CDP15.3 European Sites

CDP15.4 Requirement for Appropriate Assessment

CDP15.5 Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas

CDP15.8 Non-Designated Sites and Biodiversity

CDP 15.9 Natural Heritage and Infrastructure Schemes

CDP15.10 Environmental Impact Assessment

CDP15.12 Biodiversity and Habitat Protection

CDP15.14 Habitat Fragmentation and Green Infrastructure Corridors

CDP15.19 Woodlands, Trees and Hedgerows

CDP15.20 Natural Resources & Climate Change

CDP15.29 Alien and Invasive Species

CDP15.30 Green Infrastructure and Climate Change

#### Chapter 16 Architectural, Archaeological and Cultural Heritage

CDP16.1 Architectural Heritage

CDP16.2 Protected Structures

CDP16.5 Architectural Conservation Areas (ACAs)

CDP16.6 Proposed Works to Buildings - Protected Species and Environmental

Considerations

#### Chapter 18 Design and Placemaking

18.4.1 Energy Efficiency and Sustainability

#### **Chapter 19 Land Use and Zonings**

- 19.3 Land Use Zoning
- 19.5 Indicative Land-Use Zoning Matrix
- 19.5.1 'Permitted in Principle'
- 19.5.2 'Open for Consideration'
- 19.5.3 'Not Normally Permitted'
- 19.5.4 Uses Not Listed in the Indicative Zoning Matrix

#### Appendices:

Appendix 1 - Development Management Guidelines – relevant sections include:

- A1.2 Climate Action and Energy
- A1.2.3 Renewable Energy
- A1.3 Natural Heritage, Biodiversity and Green Infrastructure
- A1.3.1 Environmental Impact Assessment (EIA)
- o A1.3.2 Habitat Directive Assessment
- A1.6 Transport and Movement
- A1.6.1 Cycle Routes, Footpaths and Roads
- o A1.6.2 Sight Distances
- A1.6.4 Traffic Impact Assessments (TIA), Road Safety Audits and Road Safety Impact Assessments
- A1.10.1 Development Contributions A1.10.2 Cash Deposits and Bonds

Appendix 2 - Indicative Land Use Zoning Matrix

Appendix 3 - Natural Heritage Sites in County Clare:

- o Table A3.1 Special Areas of Conservation (SACs) in County Clare
- o Table A3.2 Special Protection Areas (SPAs) in County Clare
- o Table A3.3 Natural Heritage Areas (NHAs) in County Clare

Appendix 5 - Scenic Routes

Appendix 6 - Public Rights of Way and Recreational Routes

Appendix 7 - Plans, Policies and Guidelines to which the Development Plan must have regard

Vol. 6 - Clare Wind Energy Strategy 2023-2030 (Interim Version, April 2023)

Clare Climate Change Adaptation Strategy 2019-2024

Landscape Character Assessment of County Clare 2004

#### 11.2. Other Relevant Government Policy / Guidelines

#### 11.2.1. National Context

National Planning Framework – Project Ireland 2040

National Development Plan 2018-2027

Climate Action Plan 2024

National Policy Position on Climate Action and Low Carbon Development (2014) Ireland's Transition to a Low Carbon Energy Future 2015-2030 National Climate Change Adaptation Framework (2018) (NCCAF) Programme for Government – 'Our Shared Future' (2020) Climate Action and Low Carbon Development Act 2015 (as amended) Climate Action Charter for Local Authorities (2019) Climate Change Sectoral Adaptation Plan (2020) Regional Spatial and Economic Strategy for the Southern Region (RSES) National Renewable Energy Action Plan (NREAP) Wind Energy Development Guidelines for Planning Authorities 2006 and Draft Guidelines 2019 Circular PL 20-13 - Review of Wind Energy and Renewable Energy Policies in **Development Plans** Design Manual for Urban Roads and Streets (2019). Traffic Management Guidelines, Department of Transport (2019). Traffic and Transport Assessment Guidelines (2014) TII standard DN-GEO-03060 'Geometric Design of Junctions' Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, (2009) **OPR Practice Note PN01 - Appropriate Assessment Screening for Development** Management' (OPR, 2021). Architectural Heritage Protection – Guidelines for Planning Authorities (2011) The Planning System and Flood Risk Management, Guidelines for Planning Authorities Guidelines (including the associated Technical Appendices) (2009) National Biodiversity Action Plan 2023-2027 Tree Preservation Guidelines DOELG (1994) Ireland's Invasive Alien Species Soil and Stone Pathway Action Plan 2023-2027 BS 5228-1:2009+A1:2014 - Code of practice for noise and vibration control on construction and open sites – Noise (2009)

Best Practice Guidelines for the Irish Wind Energy Industry (2012), published by the Irish Wind Energy Association.

Environmental Noise Guidance for Local Authority Planning & Enforcement Departments (2021), published by Association of Acoustic Consultants of Ireland.

#### 11.2.2. European Context

S.I. No. 77/2019 - European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019

Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe.

Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment *(SEA Directive).* 

Ireland's National Energy and Climate Plan 2021-2030

EU Adaptation Strategy 2021

EU Climate and Energy Framework 2021 to 2030

EU Green Deal (2020)

EU Adaptation Strategy 2013

# 12.0 Natural Heritage Designations

#### 12.1.1. Natura 2000 Sites

- 12.1.2. The proposed 110k underground grid connection cable extends along existing roads which traverse or abut the following Natura 2000 European Sites:
  - Slieve Bernagh Bog SAC (Site Code: 002312)
  - Glenomra Wood SAC (Site Code: 001013), which incorporates Glenomra Wood Proposed NHA (Site Code: 001013)

12.1.3. Natura 2000 European Sites within 15km of the site are as follows:

 Lower River Shannon SAC (Site Code: 002165) - c. 1.6km to the southwest and 4.3km to the east

- Slieve Aughty Mountains SPA (Site Code: 004168) c. 8km to the north.
- Lough Derg (Shannon) SPA (Site Code: 004058) c. 6.8km to the northeast, east and southeast.
- Slievefelim to Silvermines Mountains SPA (Site Code: 004165) c. 15km to the east.
- River Shannon and River Fergus Estuaries SPA (Site Code: 004077) c. 6.6km to the southwest.

#### 12.1.4. Natural Heritage Areas

- 12.1.5. Natural Heritage Areas (NHAs) and Proposed NHAs (pNHAs) within 15km of the site include;
  - Lough O'Grady Proposed NHA (Site Code: 001019) c. 4.6km to the north
  - Lough Derg Proposed NHA (Site Code: 000011) c. 6km to the northeast.
  - Woodcock Hill Bog NHA (Site Code: 002402) c. 5km to the west.
  - Knockalisheen Marsh pNHA (Site Code: 002001) c. 1.6km to the southwest.
  - Fergus Estuary and Inner Shannon, North Shore pNHA (Site Code: 002048) c.
    6.6km to the southwest.
  - Inner Shannon Estuary South Shore pNHA (Site Code: 000435) c. 6.6km to the southwest.
  - Garrannon Wood pNHA (Site Code: 001012) c. 8.4km to the southwest.
  - Castle Lake pNHA (Site Code: 0002390 c. 8.8km to the northwest.
  - Rosroe Lough pNHA (Site Code: 002054) c. 13.7km to the northwest.
  - Fin Lough (Clare) pNHA (Site Code: 001010) c. 15km to the northwest.
  - Lough Cullaunyheeda pNHA (Site Code: 001017) c. 9.8km to the west.
  - Doon Lough NHA (Site Code: 000337) 1.4km to the west.
  - Cloonloum More Bog NHA (Site Code: 002307) 5.7km to the northwest

# 13.0 EIA Screening

13.1.1. Schedule 5 of the Planning and Development Regulations 2001 (as amended) transposes Annexes I and II of the EIA Directive, setting out the classes of development which require an Environmental Impact Assessment (EIA). The following relevant classes are noted:

> Part 2, Class 3(b): Industrial installations for carrying gas, steam and hot water with a potential heat output of 300 megawatts or more, or transmission of electrical energy by overhead cables not included in Part 1 of this Schedule, where the voltage would be 200 kilovolts or more. Part 2, Class 3(i): Energy projects involving installations for the harnessing of wind power with more than 5 turbines or having a total output greater than 5 megawatts. The associated Carrownagowan Wind Farm, for which this grid connection is being established, falls within this category, thereby requiring an EIA.

13.1.2. Part 2, Class 3(b) of the Regulations refers to overhead cables with a voltage of 200 kilovolts or more. The provisions under this Class do not apply in this instance because the proposed development comprises an underground 110 kV grid connection cable that would be an integral part of the permitted Carrownagowan Wind Farm. The wind farm itself meets the requirements for an Environmental Impact Assessment under Class 3(i) because of how many turbines it has and how much energy it produces. The proposed 110 kV underground grid connection would enable energy from the Carrownagowan Wind Farm to be transmitted to the national grid, which requires an environmental impact assessment. An environmental impact assessment is required to assess its impact on the environment over time. Because the proposed grid connection will support the permitted Carrownagowan Wind Farm, an EIAR has been submitted with the application. The EIAR assesses the potential environmental impacts of the proposed development during its construction and operation phases, along with an assessment of potential cumulative impacts.

# 14.0 Assessment

#### 14.1. Introduction

14.1.1. Having regard to the requirements of the Planning and Development Act, 2000 (as amended), this assessment is divided into three main parts: the Planning Assessment, Environmental Impact Assessment, and Screening for Appropriate Assessment. In each assessment, where necessary, reference is made to issues raised by all parties. There is an inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated, but such overlaps are indicated in subsequent sections of the report.

# 15.0 Planning Assessment

- 15.1.1. Having undertaken a site visit and reviewed relevant policies, the nature of existing and permitted uses on the site and in the vicinity, and the scale of the proposed development, drawings and documentation and all third-party submission reports, I consider that the main issues for assessment can be addressed under the following headings:
  - The Principle of the Proposed Development
  - Legal and Procedural Issues

#### 15.2. The Principle of the Proposed Development

15.2.1. The proposed development comprises the construction of a 110kV underground grid connection cable extending c. 25 km, connecting the permitted Carrownagowan Wind Farm substation to the existing 110kV substation at Ardnacrusha. The Planning Statement submitted with the application details the rationale for the proposed development, stating how the grid connection cable is necessary for transmitting electricity from the Carrownagowan Wind Farm to the national grid. The EIAR states that the proposed development is consistent with national policy targets, which seek to reduce greenhouse gas emissions and increase energy security, thereby contributing to Ireland's climate action goals.

- 15.2.2. The Climate Action Plan 2024 sets out targets to achieve renewable electricity up to 80% by 2030, including a target increase of up to 9 Gigawatts of onshore wind energy by 2030. Section 12.3 of the Climate Action Plan recognises that achieving these targets requires accelerating the delivery of the electricity network and supporting grid connections. At the regional level, Policy Objective 99 of the Regional Spatial & Economic Strategy for the Southern Region, 2020 seeks to support the sustainable development of renewable wind energy at appropriate locations and related grid infrastructure in the region in compliance with national Wind Energy Guidelines. I am satisfied that the nature of the proposed development is consistent with these objectives.
- 15.2.3. At county level, Table 2.2 of the Clare County Development Plan 2023-2029 sets out renewable energy resource targets for County Clare to 2030 and sets a target of 550 MW and 1,590 GWh/y. This target is included in the Clare Wind Energy Strategy (2023). One of the core objectives under Section 1 of the Clare Wind Energy Strategy (Interim Version, April 2023) is to promote economic development through wind energy and other renewables in the County, underpinning the need for energy security, the promotion and establishment of a low carbon economy and the development of green business within the County. The proposed development, which would enable the transmission of an estimated export capacity of 90 to 110 MW from the 19 permitted wind turbines at Carrownagowan Wind Farm, would contribute to the renewable energy resource targets of the Clare County Development Plan.
- 15.2.4. Having regard to the above, I consider that the proposed development aligns with national, regional, and local policies that support renewable wind energy development. The proposed grid connection would contribute to meeting the targets set out in the Climate Action Plan 2024, aimed at increasing the generation of renewable electricity and reducing greenhouse gas emissions.

#### 15.3. Legal and Procedural Issues

15.3.1. Third-Party submissions object to the proposed development on the grounds that it does not constitute a Strategic Infrastructure Development (SID). It is submitted that the SID process is inappropriate for this application, as the grid connection would have a greater impact on local infrastructure and communities rather than meeting the criteria for SID classification. Observers submit that separating the grid connection

from the original wind farm application is a tactical move to avoid comprehensive environmental assessment, citing case law such as *O'Grianna v Bord Pleanála* (2014) and *Ratheniska v Bord Pleanála* (2015), which emphasise the importance of assessing cumulative impacts of interconnected projects.

- 15.3.2. Objectors submit that the designation of the Carrownagowan Wind Farm as "permitted" is misleading, given the ongoing judicial reviews, which suspend related proceedings and limit their legal rights. The observers submit that bypassing the Local Authority in favour of a direct application to An Bord Pleanála reduces the possibility for community engagement and full scrutiny at the local level.
- 15.3.3. The Carrownagowan Concern Group submission expresses concern about compliance with the EU Birds and Habitats Directives and potential breaches of the Wildlife Act. They reference EU cases, including C-196/16 and C-399/14, to suggest that the developer divided the project into components to avoid a comprehensive Environmental Impact Assessment and Appropriate Assessment. The observers highlight the lack of cumulative impact assessment for sensitive areas, such as the Slieve Aughty SPA.
- 15.3.4. In response, the applicant states the proposed development meets the requirements for a Strategic Infrastructure Development (SID) under Section 182A of the Planning and Development Act 2000 (as amended). The applicant states that the development was confirmed as a SID by An Bord Pleanála on 4<sup>th</sup> April 2023. Because of its strategic role, the applicant states that the development's role in transmitting energy meets the requirements for SID designation.
- 15.3.5. In response to the claims of segmentation of applications to avoid comprehensive environmental impact assessment, the Applicant submits that the EIAR and AA Screening report submitted with the application fully considered the cumulative impacts with the Carrownagowan Wind Farm and other relevant developments. The Applicant states that the EIAR incorporates appropriate mitigation measures addressing potential environmental impacts associated with the grid connection. The Applicant cites the O'Grianna and Ratheniska case precedents, arguing that the current application meets legal requirements and includes detailed assessments of potential environmental impacts in accordance with EU Directives and the Planning and Development Act.

- 15.3.6. Regarding the ongoing judicial review of the permitted Carrownagowan Wind Farm, the Applicant states that this is a valid grant of planning permission pending the outcome of the judicial review. The Applicant states that the delays caused by the judicial review processes don't make the SID designation invalid or undermine the integrity of the planning process. The Applicant states that applying directly to An Bord Pleanála for a SID application is the correct statutory process.
- 15.3.7. Regarding claims of non-compliance with EU Birds and Habitats Directives, the Applicant states that site-specific assessments have been undertaken and protective measures proposed, ensuring compliance with the EU directives. The Applicant states that the Screening for Appropriate Assessment and EIAR include assessments for relevant designated areas and that the proposed mitigation measures, including buffer zones and habitat protection, are sufficient to protect ecological sensitivities. The Applicant states that impacts on designated areas, such as the Slieve Aughty SPA, were assessed, and no significant impacts were identified, therefore complying with EU and Irish environmental legislation.
- 15.3.8. In light of the submissions received and the Applicant's response, I consider the key issues for The Board to consider are whether the proposed development qualifies as a Strategic Infrastructure Development (SID), its legal status, project splitting, and cumulative impact assessment.
- 15.3.9. The Planning and Development Act 2000 (as amended) sets out the legal framework for Strategic Infrastructure Development (SID), whereunder Sections 37E, 37A, 37B, and the Seventh Schedule specify the criteria for SID designation and require preapplication consultation with An Bord Pleanála. The application for the proposed development was submitted to An Bord Pleanála under Section 182A(1) of the Act. Section 182A(1) refers to development comprising or for the purposes of electricity transmission and requires the undertaker to apply for permission from An Bord Pleanála. As the proposed development involves an electricity transmission cable with a voltage line of 110kV, I am satisfied that the application was submitted in accordance with Section 182A of the Act.
- 15.3.10. Observers submit that separating the proposed grid connection cable from the wind farm development is an intentional move to avoid a comprehensive environmental impact assessment. Reference is made to case law, including

O'Grianna v Bord Pleanála (2014) and Ratheniska v Bord Pleanála (2015), which highlight the need for the cumulative impact assessment of interconnected projects. In O'Grianna v Bord Pleanála, the High Court ruled that environmental assessments should take into account the cumulative effects of functionally linked projects, as a segmented approach could obscure the overall environmental impact. In Ratheniska v Bord Pleanála ([2015] IEHC 18), the court underlined the importance of conducting a cumulative assessment when different components of a development are intrinsically linked, as segmented applications could result in inadequate consideration of cumulative environmental impacts.

- 15.3.11. The Applicant has submitted an EIAR and a Screening for Appropriate Assessment report with the application, which addresses the cumulative and incombination impacts of the proposed grid connection with the Carrownagowan Wind Farm and other relevant developments in the region. The EIAR incorporates mitigation measures to address any significant cumulative impacts, which I consider meet the concerns raised by Observers with regard to the O'Grianna and Ratheniska legal cases. Furthermore, Section 182A of the Planning and Development Act 2000 sets out the statutory framework for reviewing electricity transmission grid connections independently, providing that environmental impact assessments consider potential cumulative effects. I consider the proposed development is consistent with the Planning and Development Act, 2000 (as amended), which allows for strategic development, such as grid connections being treated as separate applications as long as cumulative impacts are fully assessed.
- 15.3.12. I note the third-party submission's concern that referring to the Carrownagowan Wind Farm as "permitted" is misleading, given the ongoing judicial review. Observers submit that this position undermines objectors' legal rights and that going directly to An Bord Pleanála reduces local engagement and scrutiny. An Bord Pleanála granted permission under ABP Ref. 308799-20 for the Carrownagowan Wind Farm, which consists of 19 turbines, a meteorological tower, a 110kV substation, and associated site works. A judicial review is currently underway, which challenges aspects of this decision. However, it is my view that the grant of permission remains valid until the court decides otherwise.
- 15.3.13. I note the concerns raised about bypassing the local authority, with observers claiming that this reduces local input and scrutiny. However, under Section 182A of

the Planning and Development Act of 2000 (as amended), applications for electricity transmission lines of 110 kilovolts or more must be made directly to An Bord Pleanála. The application complies with this statutory requirement. While this planning process bypasses the local authority's decision-making role, it requires mandatory consultation with the local authority, relevant prescribed bodies, and the public.

- 15.3.14. As detailed in Chapter 1 of the EIAR, the applicant undertook extensive consultation with prescribed bodies and non-governmental agencies, as well as the local community. Meetings were held with Clare County Council and An Bord Pleanála to discuss issues such as traffic management and environmental impacts. Written notices were sent to stakeholders to encourage their feedback on the proposed development. Volume III, Appendices 1-1 and 1-2 of the EIAR contain a list of the organisations/groups consulted, a copy of the consultation document, and the responses received. To promote community participation, the applicant appointed two Community Liaison Officers, who went door-to-door and delivered newsletters to residents along the grid path. Furthermore, the project provided a dedicated website, <u>www.carrownagowanwindfarm.ie</u>, which was regularly updated with information.
- 15.3.15. Third-party observers exercised their rights to make submissions to An Bord Pleanála regarding the proposed development, which are summarised in Section 7 above and issues raised are incorporated into the assessment of the proposed development. These submissions demonstrate that the public was given adequate opportunity to engage in the planning process. I am satisfied that all necessary steps were taken to ensure public participation in compliance with the statutory requirements of the Planning and Development Act.

# 16.0 Environmental Impact Assessment

#### 16.1. Statutory Provisions

16.1.1. The proposed development comprises the installation of a 25 km underground 110kV grid connection cable connecting the Carrownagowan Wind Farm substation (permitted under ABP Ref. 308799-20) to the existing 110kV substation in Ardnacrusha. The grid connection would enable the wind farm's electricity to be transmitted to the national grid. The installation of the proposed grid connection cable
would traverse nine watercourse crossings, eight of which would be done using horizontal directional drilling, one with an over-bridge solution, and thirty-five joint bays and communication chambers along the route.

16.1.2. An EIAR has been submitted to assess the environmental impact of the proposed grid connection. While 110kV underground cables are not listed as requiring an EIAR under Schedule 5, Parts 1 and 2 of the Planning and Development Regulations 2001 (as amended), the proposal would form an integral part of the permitted Carrownagowan Wind Farm, which falls under Class 3(i) which applied to Wind energy projects with more than 5 no. turbines or having a total output greater than 5 megawatts. Given the size of the permitted wind farm and the cumulative impacts of the proposed grid connection, an EIAR is required to enable a comprehensive assessment of its environmental impacts.

### 16.2. EIA Structure

- 16.2.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations, 2001 (as amended), which incorporate the European Directives on Environmental Impact Assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171A of the Planning and Development Act, 2000 (as amended) defines EIA as:
  - a) consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and
  - b) includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.
- 16.2.2. Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements for the contents of an EIAR.

- 16.2.3. This EIA section of the report is, therefore, divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001 (as amended). The second section provides an examination of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental factors, having regard to the EIAR and relevant supplementary information:
  - Population and Human Health,
  - Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
  - Land, Soil, Water, Air and Climate,
  - Material Assets, Cultural Heritage and the Landscape, and
  - The interaction between the above factors,
- 16.2.4. It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Board's decision, should the Board agree with the recommendation made.

# 16.3. Compliance with Article 94 and Schedule 6 of the Regulations 2001

16.3.1. I assess below compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations, 2001 (as amended).

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)

A description of the	A description of the proposed development is provided in
proposed	Chapter 2 of the EIAR. The chapter details the proposed
development	25km underground 110kV grid connection cable from the
comprising	Carrownagowan Wind Farm substation to the existing
information on the	substation at Ardnacrusha, owned by the ESB.
site, design, size	The EIAR provides a description of the application site,
and other relevant	route, design elements and details of watercourse
features of the	crossings (8 no. using horizontal directional drilling and
proposed	one over-bridge solution), as well as the installation of 35
development	no. joint bays and communication chambers.
(including the	The EIAR provides technical details, such as the depth
additional	and width of excavations, site preparation, construction
information	methods, and proposed traffic management plans.
referred to under	The EIAR addresses operational elements, outlining its
section 94(b).	role in delivering renewable energy to the national
	grid and contributing to Ireland's energy infrastructure.
	The description is adequate and provides a detailed
	overview of its scale, design, construction aspects and
	environmental impacts.
A description of the	The EIAR describes the likely significant effects of the
likely significant	proposed development on the environment.
effects on the	Chapter 5 of the FIAR details potential impacts on the
environment of the	population and human health arising from construction
proposed	disturbance. traffic. and accessibility.
development	Chapter 6 assesses impacts on biodiversity, detailing
(including the	effects on local babitats, protected species, pearby Natura
additional	2000 sites and proposed mitigation measures
information	
referred to under	
section 94(b)	

Chapter 7 addresses water quality and examines potential
impacts on surface and groundwater arising from
construction activities.
Chapter 8 addresses potential impacts on land and soil
arising from excavation works required to lay the cable.
Chapter 9 assesses noise and vibration impacts arising
during construction.
Chapter 10 assesses impacts on cultural heritage,
including Protected Structures and archaeological sites
along the route.
Chapter 11 assesses potential impacts on air quality and
climate, such as emissions and dust during construction.
Chapter 12 assesses impacts on material assets such as
roads and utilities.
Chapter 13 examines impacts on the landscape and
scenic views.
Chapter 14 details the interactions of the different
environmental factors.
Chapter 15 details the proposed mitigation measures to
mitigate potential environmental risks and impacts.
The information is adequate, providing a detailed overview
of all potentially significant environmental impacts and
proposed mitigation measures to minimise these impacts.

A description of the	The EIAR provides a detailed description of the measures
features, if any, of	to avoid, prevent, or reduce the likely significant adverse
the proposed	effects of the proposed development on the environment.
development and	Chapter 6 outlines biodiversity mitigation measures. This
the measures, if	includes measures for habitat restoration and the
any, envisaged to	protection of species such as the hen harrier, with
avoid, prevent or	particular regard to the Glenomra Wood SAC.
reduce and, if	Chapter 7 details proposed mitigation measures regarding
possible, offset	water. These include using Horizontal Directional Drilling
likely significant	(HDD) at watercourse crossings to prevent contamination
adverse effects on	and daily backfilling to prevent water runoff and sediment
the environment of	movement.
the development	Chapter 8 sets out mitigation measures regarding soil and
(including the	land, particularly excavation mitigation measures to reduce
additional	erosion and the risk of soil contamination.
information	Chapter 9 describes noise and vibration mitigation
referred to under	measures, such as construction time restrictions and noise
section 94(b).	control measures.
	Chapter 10 outlines mitigation measures for the protection
	of archaeological sites and Protected Structures such as
	Kilbane Bridge
	Chapter 12 sets out traffic management plans to minimize
	impact on local road infrastructure
	Chapter 15 consolidates all mitigation measures and
	continuous monitoring of environmental factors throughout
	the project.

A description of the	Chapter 4 of the EIAR analyses the reasonable
reasonable	alternatives studied, including the "Do-Nothing" scenario,
alternatives studied	alternative grid connection routes, and various
by the person or	construction methods.
persons who	The "Do-Nothing" scenario is rejected as it would fail to
prepared the EIAR,	meet the project's objectives of delivering renewable
which are relevant	electricity from the Carrownagowan Wind Farm to the
to the proposed	national grid.
development and	Alternative grid connection routes were assessed based
its specific	on environmental constraints, land use, and proximity to
characteristics, and	sensitive ecological areas such as the Glenomra Wood
an indication of the	SAC and Slieve Bearnagh SAC.
main reasons for	The EIAR considered construction methods, including
the option chosen,	open trenching versus Horizontal Directional Drilling (HDD)
taking into account	at watercourse crossings, to minimise impacts on water
the effects of the	guality and biodiversity.
proposed	The option chosen was selected for its capacity to
development on the	minimize environmental impacts, particularly concerning
environment	hisdiversity water, and land while answing the
(including the	development's face/billity. The decision prioritized evolution
additional	development's feasibility. The decision prioritised avoiding
information	sensitive ecological areas and reducing the need for
referred to under	extensive earthworks, thereby mitigating potential adverse
section 94(b).	environmental impacts.
Article 94(b) Addition	al information, relevant to the specific characteristics

Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).

A description of the	The EIAR provides a description of the baseline
baseline	environment in each of the environmental topic chapters.
environment and	Chapter 5 describes the current situation of population
likely evolution in	and human health in the area. Chapter 6 details the
	baseline environment of biodiversity, including flora,

the absence of the	fauna, and habitats. Chapter 7 details the current state of
development.	water quality along the route. Chapter 8 describes existing
	land and soil conditions and Chapter 9 details existing
	noise and vibration levels. Chapter 10 details the existing
	cultural heritage features in the area, and Chapter 11
	details the existing baseline air quality and climate.
	Chapter 13 describes the existing landscape and visual
	aspects of the region.
	The EIAR predicts the likely evolution of these
	environmental features in the absence of the proposed
	development.
A description of the	Each environmental topic chapter of the EIAR describes
forecasting	the methodology and forecasting methods used to identify
methods or	and forecast significant environmental impacts.
evidence used to	For example, in Chapter 11, air quality, the assessment
identify and assess	uses a monitoring and qualitative assessment
the significant	methodology.
effects on the	In Chapter 9, noise and vibration impacts are assessed
environment,	using modelling based on baseline measurements gained
including details of	from previous surveys, with an analysis of noise impacts
difficulties (for	during construction.
example technical	Chapter 7 addresses potential impacts on water quality and
deficiencies or lack	uses hydrological modelling and surface water sampling to
of knowledge)	forecast potential impacts on water quality.
encountered	Chapter 6 addresses biodiversity and uses species surveys
compliing the	and habitat mapping to forecast potential impacts on
required	different species and their habitats.
information, and	Each chapter provides a statement on the limitations and
	difficulties encountered.
involved	
mvolved	

A description of the	The EIAR reports on the vulnerability of the proposal to
expected	major accidents and disasters in several chapters,
significant adverse	particularly environmental hazards and operational risks.
effects on the	The report details potential risks during the construction
environment of the	and operation phases, including the possibility of accidents
proposed	such as oil spills, leaks of hazardous material, and fires.
development	For example, in Chapter 7 (Water), the EIAR identifies the
deriving from its	risk of water contamination arising from construction
vulnerability to	activities, particularly near sensitive watercourses and
risks of major	outlines preventive measures to mitigate the risk of
accidents and/or	accidents during construction, e.g. the use of appropriate
disasters which are	containment for hazardous materials and emergency
relevant to it.	response protocols. 4
	Chapter 9 (Noise and Vibration) examines risks of
	equipment failure during construction, which could result in
	significant noise or vibration impacts.
	Chapter 15 (Schedule of Mitigation Measures) outlines
	measures to prevent accidents and disasters, including the
	preparation of a detailed construction management plan
	and health and safety protocols. Measures include traffic
	management to reduce the risk of accidents involving
	construction vehicles and continuous monitoring to detect
	and address potential hazards as they arise.
Article 94 (c) A	Vol.1 of the EIAR includes a non-technical summary of
summary of the	the information required under Article 94 (c). The
information in non-	summary provides a concise, detailed description of the
technical language.	proposed development, its surrounding environment, the
	potential impact of the proposal on the environment,
	proposed mitigation measures, and monitoring
	arrangements.

Article 94 (d)	The EIAR draws on a range of sources for its descriptions
Sources used for	and assessments used in the report. It uses data from site
the description and	surveys, field studies, scientific publications and
the assessments	environmental databases. The report draws on
used in the report	consultations with technical experts, prescribed bodies and
	the local authority. It adheres to technical standards and
	best practices. It employs predictive modelling tools to
	forecast potential impacts and refers to related previous
	planning applications and reports to assess cumulative
	effects.
Article 94 (e) A list	The EIAR contains a list of experts and their qualifications
Article 94 (e) A list of the experts who	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report.
Article 94 (e) A list of the experts who contributed to the	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in
Article 94 (e) A list of the experts who contributed to the preparation of the	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and
Article 94 (e) A list of the experts who contributed to the preparation of the report	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and vibration, air quality, water quality, and biodiversity.
Article 94 (e) A list of the experts who contributed to the preparation of the report	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and vibration, air quality, water quality, and biodiversity. Where relevant, the introductory section of each chapter
Article 94 (e) A list of the experts who contributed to the preparation of the report	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and vibration, air quality, water quality, and biodiversity. Where relevant, the introductory section of each chapter details the individual's expertise and qualifications,
Article 94 (e) A list of the experts who contributed to the preparation of the report	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and vibration, air quality, water quality, and biodiversity. Where relevant, the introductory section of each chapter details the individual's expertise and qualifications, demonstrating their competence in the preparation of the
Article 94 (e) A list of the experts who contributed to the preparation of the report	The EIAR contains a list of experts and their qualifications in Chapter 1, Section 1.8 of the report. The multidisciplinary team includes experts in environmental science, civil engineering, noise and vibration, air quality, water quality, and biodiversity. Where relevant, the introductory section of each chapter details the individual's expertise and qualifications, demonstrating their competence in the preparation of the individual chapters within the EIAR.

# 16.3.2. Consultations

16.3.3. The application, as submitted, complies with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) regarding public notices. Submissions from prescribed bodies and third parties have been received and are taken into consideration in this report. I am satisfied that appropriate consultations have been undertaken and that third parties were given the opportunity to comment on the proposed development as part of this application.

### 16.3.4. Compliance

16.3.5. Regarding the above, I am satisfied that the information in the EIAR and supplementary documentation provided with the application complies with the requirements under Article 94 of the Planning and Development Regulations, 2001 (as amended). My assessment of the proposed development's environmental impacts is set out below.

# 16.4. Population and Human Health

# 16.4.1. Issues Raised

- 16.4.2. Third-party submissions expressed concerns regarding the proposed development and the risk of potential contamination of private wells from drilling activities and construction works. There are also concerns regarding the lack of adequate community consultation, road closures that could interrupt daily life and farming activities, and potential structural impacts on residential dwellings and protected structures such as Kilbane Bridge along the route. Furthermore, there are concerns that increased construction traffic on narrow local roads would create risks for road safety.
- 16.4.3. The submission reports from the Local Authority and Prescribed Bodies raised no specific concerns regarding Population and Human Health.

#### 16.4.4. Methodology

16.4.5. The methodology for assessing impacts on population and human health in the EIAR included desk-based research and site visits to obtain information on the surrounding environment. According to the EIAR, desktop studies reviewed 2022 Census data to examine demographics and the economic environment, and OS mapping and aerial photography to examine existing land use and settlement patterns. The assessment addresses potential impacts on employment, land use, settlement patterns, baseline population, demographic changes, and risk to human health. The EIAR determines the significance of effects using established exposure limits and environmental health thresholds.

# 16.4.6. Baseline Conditions

- 16.4.7. The proposed grid connection cable would connect the Carrownagowan Wind Farm substation to the existing substation in Ardnacrusha, extending c. 25 km through various townlands in Co. Clare. According to the EIAR, the route would mostly follow public roads but also pass through private land and along forestry tracks. The report states that the surrounding area is primarily agricultural, with coniferous forestry at the northern end.
- 16.4.8. The EIAR states that settlement patterns in the surrounding area range from large urban centres like Limerick City (102,287 population), Ennis (27,923), and Nenagh (9,895) to smaller community settlements and rural farmsteads. The proposed grid connection cable route travels through Kilbane and around the western border of Ardnacrusha village. There are c. 163 dwellings within 50 metres of the route of the proposed grid connection cable. The EIAR describes the population in the study area as having moderate density, with some electoral divisions having population growth between 2016 and 2022.
- 16.4.9. The EIAR states that health data from the 2022 Census reveals a high percentage of the population reporting "Very Good" or "Good" health across the electoral divisions. No significant public health concerns were observed. The EIAR states that the local workforce is employed in a variety of areas, with public administration, commerce, professional services, and trade being the most predominant. According to travel data in the 2022 Census, the majority of residents commute to work by car.
- 16.4.10. Regarding land use, the EIAR states that the route travels mostly across roads and agricultural and forestry land. The EIAR details tourism and recreational amenities in the area, including the East Clare Golf Club, East Clare Way walking trail, and Lough Derg. The proposed grid connection cable would overlap with the East Clare Way for c. 4.7 km along the L8218 and the L30302 towards the village of Kilbane. However, no tourist attractions are located along the grid connection route. The EIAR states that various visitor services are provided in the area, including Kilbane Glamping, local schools and healthcare facilities.

### 16.4.11. **Potential Effects**

16.4.12. The EIAR states that the proposed development will not significantly impact economic activity, with only a temporary, neutral, and unnoticeable impact on local employment during construction. The report states that 10-25 people would be employed, and supplies would be acquired locally, which would have a brief economic boost. The EIAR states the project would not displace locals or modify settlement patterns. Most construction workers would be local, with no significant inward immigration. The impact on settlement patterns is deemed as temporary, neutral, and imperceptible.

- 16.4.13. The EIA describes how the construction of the proposed development would cause short-term traffic problems. This would include using one-way stop/go systems and closing roads, which could have an impact on the local community. The report states that these effects would be temporary and limited to small sections of the route. It is projected that the change in land use would be temporary, negative, and not significant.
- 16.4.14. During the construction phase, the EIAR identifies potential impacts from dust, noise, traffic, and visual impacts. The report predicts the impacts from noise to have a temporary, slight, to moderate impact but would not exceed acceptable noise limits at dwelling locations. Dust and emission impacts are predicted to be temporary, imperceptible, and negative and will be subject to standard dust mitigation measures. Effects from traffic disruptions are expected to be temporary, moderate, and negative, while visual impacts are predicted to be temporary and not significant.
- 16.4.15. The EIAR states that the construction phase, c. 6-8 months, would result in slight to moderate negative impacts on the East Clare Way walking trail due to noise and construction activity. However, access for walkers would not be restricted. Visual impacts are predicted to be temporary and localised. Disturbed areas would revegetate post-construction.
- 16.4.16. The EIAR states that during the operational phase of the proposed grid connection, there would be no significant impacts on population and human health. The EIAR states that the purpose of the development is to enable the transmission of electricity from the permitted Carrownagowan wind farm to the national grid. There would be no emissions during the operation phase, except minimal ones during maintenance. The report states that no direct full-time employment opportunities would be linked to the grid connection itself.
- 16.4.17. The EIAR states that apart from land use within off-road sections of the route, there would be no changes to land use. Public roads would be fully reinstated following

the Department of Transport Guidelines on Opening, Backfilling and Reinstatement of Trenches on Public Roads (2017). The report states that overall impacts on population and human health during the operational phase would be negligible.

16.4.18. The EIAR states that under the "do-nothing" scenario, the negative impacts arising during construction would be avoided. However, the positive renewable energy benefits of connecting the wind farm to the national grid would not occur.

# 16.4.19. **Cumulative Impacts**

16.4.20. The EIAR states that cumulative impacts associated with the proposed development would be minimal. The report states that any potential interaction between the grid connection and the Ardnacrusha substation would be controlled by Eirgrid's Station Manager, who would use traffic management measures to mitigate cumulative impacts. The EIAR states that during the operational phase, the proposed development would not generate significant emissions or have other impacts, and thereby, no cumulative effects with other projects would occur.

### 16.4.21. Mitigation Measures

16.4.22. The EIAR states that potential effects on population and human health would mostly occur during the construction phase, arising from traffic, noise, and dust. The report states that mitigation measures for these impacts are detailed in the respective environmental topic chapters in the EIAR. Aside from this, no additional mitigation measures are proposed.

### 16.4.23. **Residual Impacts**

16.4.24. According to the EIAR, the proposed development is unlikely to impact current economic activity, displace population, or change settlement patterns. The report states the proposal would not significantly affect adjacent land uses, and existing land practices could continue alongside the project. There would be no closure of rights of way. The EIAR states that standard traffic management measures would minimise traffic nuisances and that best management practices would keep dust levels within acceptable limits. Mitigation measures would control noise levels within acceptable limits.

#### 16.4.25. **Assessment**

- 16.4.26. I have reviewed Chapter 5 of the EIAR, associated documentation, and submissions on file regarding Population and Human Health. I consider that the impacts of the proposed development on population and human health have been adequately detailed.
- 16.4.27. I acknowledge the concerns raised in the third-party submissions regarding contamination risks to local water supplies and private wells, disruption to traffic, and potential impacts on structures and dwellings. However, I consider the EIAR has adequately demonstrated that these risks would be mitigated or have only temporary, minor, and manageable effects during construction. As outlined in the EIAR, the implementation of standard best practices in traffic management, noise, and dust control would ensure that these effects are minimal and short-term. I consider the proposed mitigation measures appropriate and would be effective.
- 16.4.28. The construction phase of the proposal, while temporary, would result in direct impacts such as noise, dust, and traffic disruption. However, I consider that the proposed mitigation measures, such as adherence to established construction noise limits, traffic control measures, and dust suppression methods, would adequately manage and prevent any effects. The construction phase would be temporary and phased. I do not consider the impacts would have adverse effects on the local population's health or quality of life.
- 16.4.29. I consider that there would be no significant indirect effects. Potential impacts on visual amenities or disruptions to local amenities would be minor, limited to the construction phase and would not have significant residual impacts. During the operation phase, the reinstatement of roads and land after the laying of the grid connection cable would negate impacts on population and human health.
- 16.4.30. Regarding cumulative effects, I consider that the interaction between the proposed development and other developments in the area, particularly at the Ardnacrusha substation, would be effectively managed. When the development is complete, no significant emissions would occur.

### 16.4.31. **Conclusion**

16.4.32. In conclusion, it is my view that subject to the implementation of the proposed mitigation measures, the proposed development would not have significant adverse effects on the health and well-being of the local population or significantly disrupt existing land use or settlement patterns.

### 16.5. Biodiversity

#### 16.5.1. Issues Raised

- 16.5.2. Third-party submissions expressed concerns regarding the potential impacts on biodiversity. Concerns raised include the proximity of the proposed route to the Slieve Bearnagh SAC and Glenomra Wood SAC, with assertions that excavations and construction activity would breach EU environmental protection. Specific concerns include potential impacts on the hen harrier, with submissions questioning the adequacy of the surveys undertaken, which are alleged to overlook breeding periods and underestimate habitat displacement. Concerns were also raised regarding the cumulative impacts of the proposed grid connection, in combination with other developments in the area, on peatland and bird populations, with requests for a more comprehensive assessment of these effects.
- 16.5.3. The Department of Housing, Local Government, and Heritage submission raised concerns regarding Glenomra Wood SAC, where the potential introduction of invasive species during construction was not adequately assessed in the EIAR. The Department's report identifies discrepancies between the AA Screening Report and the CEMP regarding the proximity of the proposal to the SAC. The Department recommended pre-construction surveys of otters and an assessment of bat roost suitability before trees are removed. Additional concerns include the loss of treeline habitat and the need to reduce the impact on the degraded upland blanket bog, in accordance with the objective of the National Biodiversity Action Plan to prevent biodiversity loss. Transport Infrastructure Ireland did not raise any specific concerns regarding biodiversity.
- 16.5.4. Clare County Council's submission notes the omission of potential impacts on the Lower River Shannon SAC, which is hydrologically connected to the grid connection route and within the 5km Zone of Influence. The report states the absence of this calls into question the validity of the assessment.

16.5.5. The applicant addresses the concerns raised by submitting that the grid connection is underground and distant from sensitive ecological areas and thereby poses no significant risk to biodiversity. Regarding potential impacts on Glenomra Wood SAC, the applicant acknowledges that while part of the route passes within the SAC, mitigation measures, including the Invasive Species Management Plan and controlled construction methods, would prevent significant adverse impacts on biodiversity. The applicant states that the specific conservation objectives for the Glenomra Wood SAC were considered in the preparation of the EIAR, and that no invasive species were discovered along the route of the grid connection cable. Regarding hen harrier species, the applicant states that the proposal would not impact the species, given the underground nature of the project and its distance from the SPA. The Applicant states that all mitigation measures, as detailed in the EIAR, would be implemented.

# 16.5.6. Methodology

- 16.5.7. The EIAR uses desktop studies and baseline ecological surveys to identify and document protected habitats and species in the study area. The EIAR states that the study area is adequately sized and proportionate, focusing on lands within the site boundary and extending 50 meters beyond for species such as badgers.
- 16.5.8. Field surveys record incidental sightings of birds, mammals, amphibians, and bat habitats. The EIAR defines the prospective Zone of Influence (ZOI) based on the project characteristics, size, location, habitat sensitivity, and ecological connectivity. Prescribed Bodies like the NPWS, Inland Fisheries, and non-government agencies were consulted. The desktop study examined NPWS records, NBDC mapping, and 2019 aquatic biological assessments relating to the Carrownagowan Wind Farm grid connection.
- 16.5.9. Field surveys were undertaken in August 2022, followed by follow-up surveys in November 2022, April 2023, and June 2023. The EIAR states that these surveys were done during suitable weather and classified habitats according to best practice. There was a focus on identifying invasive alien species, including their GPS location, size, and infestation area.
- 16.5.10. The EIAR states that aquatic ecology surveys comprised an assessment of macroinvertebrate populations, fish surveys, and aquatic habitat surveys. To classify ecological receptors of local and international importance, CIEEM (2018) and EPA

(2022) guidelines were used to analyse ecological features and impacts. The EIAR details that mitigation measures were incorporated into the design of the proposal to minimise impacts on critical ecological receptors. The EIAR states that cumulative effects were examined with other developments in the area, as detailed in Appendix 1-5.

# 16.5.11. Baseline Conditions

- 16.5.12. The EIAR details that designated sites within the Zone of Influence (ZOI) of the proposed development include two Special Areas of Conservation (SAC), Slieve Bernagh Bog SAC and Glenomra Wood SAC. The Slieve Bernagh Bog SAC located adjacent to the northern section of the proposed development, is primarily composed of mountain blanket bog. The report states that no direct impacts are anticipated as the works will take place outside the SAC. Glenomra Wood SAC, intersected by the proposed grid connection along a public road, contains Old Sessile Oak woodland. The EIAR notes that no tree felling, or clearance will be required as all works will be confined to the road and existing passing bays.
- 16.5.13. The EIAR identifies other nearby habitats, including upland blanket bog, conifer plantations, hedgerows, treelines, and grass verges, evaluating most as being of local importance. It states that c. 40m of upland blanket bog, degraded due to previous drainage, will be affected, with an impact area of 200m<sup>2</sup>.
- 16.5.14. The EIAR notes that several streams and rivers are crossed by the development, including the Blackwater River and Glenomra Wood Stream, classifying these as eroding/upland rivers of local importance.
- 16.5.15. Regarding invasive alien species, the EIAR identifies the presence of species listed under the Third Schedule of the European Communities Regulations 2011, including Japanese knotweed, Himalayan knotweed, and giant rhubarb, which were recorded in hedgerows, roadside verges, and watercourse banks along the development route.
- 16.5.16. Regarding Mammals, the EIAR details that several protected mammal species were recorded in the study area, as noted in Table 6-6, based on data from the NPWS and National Biodiversity Data Centre (NBDC). The species include otter, badger, pine marten, stoat, red squirrel, and Irish mountain hare, all of which are protected under

wildlife legislation. Mink, bank vole and wild boar, classified as invasive species, were also noted. The EIAR states that badger setts were not found within the study area, though snuffle holes were observed in agricultural land at the northern extent of the site. Pine marten and red squirrel habitats exist in wooded areas, but no signs of their presence were detected during the field surveys. The EIAR notes that while otters were not recorded within the study area, the Blackwater River, which is crossed by the development, is likely used by foraging otters due to its fish population. The EIAR states that badger, pine marten, stoat, hare, red squirrel, and other animals noted are of local importance (lower value) in the context of the proposed development. While these species may occasionally use the site, the EIAR states that the site holds no particular significance for them.

- 16.5.17. Regarding Birds, the EIAR details bird species of highest conservation concern from the 10km grid squares encompassing the proposed development, based on data from the Bird Atlas 2007-11 (Balmer et al., 2013). Notable species include Hen harrier, Peregrine falcon, and Corncrake, all listed under Annex I of the EU Birds Directive. Additional species of concern include whooper swan, golden plover, lapwing, curlew, and redshank, among others, many of which are listed as birds of conservation concern in Ireland and are red listed. The EIAR concludes that the proposed development would not significantly affect these birds due to the limited habitat within the project area suitable for breeding and foraging. Birds using treeline and hedgerow habitats, such as robin, wren, and goldcrest, are considered of local importance (lower value).
- 16.5.18. The desk study recorded several records of common frog and a single record of a smooth newt within the 10 km study area. However, field surveys showed there are no suitable breeding habitats within the study. Amphibians and reptiles are classified as being of local importance (lower value).
- 16.5.19. Regarding invertebrates, desk studies found that there are no marsh fritillary habitats along the grid route. Field studies of Macroinvertebrates in August 2019 found that water quality in the rivers within the study area, including the Owenogarney and Blackwater Rivers, has a high rating and is deemed as being of local importance (higher value).

- 16.5.20. Surveillance monitoring in 2013 on the Broadford River recorded six fish species, including salmon, brown trout, and European eel. Filed studies of the Broadford, Glenmora Wood and Blackwater Stream evaluated the watercourses as being of local importance (higher value) as they have the capacity to continuously support fish.
- 16.5.21. The EIAR identifies and evaluates Key Ecological Receptors. Regarding Designated Sites, the EIAR states that the proposed development would not impact Slieve Bernagh Bog SAC and Glenomra Wood SAC because the proposed works are contained within the road, the distance, existing drainage regimes, and the absence of encroachment onto habitats.
- 16.5.22. Regarding habitats, the EIAR determines larger eroding/upland rivers as key ecological receptors due to their potential for runoff, water quality impacts, support of some species of high conservation importance, prone to drying out and unstable benthic communities. Hedgerows, treelines, upland blanket bog, and mixed broadleaved/conifer woodland are identified as Key Ecological Receptors by reason that they support some species of high conservation importance, including protected non-volant mammals and potential bat roosts. Other habitats, such as improved agricultural grassland, conifer plantations, and earth banks, are rated as lower ecological.
- 16.5.23. Regarding fauna, the European Otter, aquatic macroinvertebrates and brown trout are identified as key ecological receptors. The Otter is included because it depends on fish, which require good water quality and could be affected by the proposed development. Aquatic macroinvertebrates and brown trout are included because they require good water quality. Birds, salmon, and stickleback are not considered key ecological receptors because of their limited significance within the zone of influence.
- 16.5.24. The EIAR identifies Invasive Alien Species within and adjacent to the proposed grid connection route, noting their potential impact.

#### 16.5.25. **Potential Effects**

16.5.26. The EIAR identifies how the construction phase could result in temporary alterations of habitat, noise and vibration disturbance to small mammals, potential

pollution of rivers and streams via surface water, and the spread of invasive alien species.

- 16.5.27. The report details the potential for habitat loss, notably a 40m stretch of degraded upland blanket bog at the northern end of the route. The report states the loss would not be significant due to the already degraded condition of the upland blanket bog habitat and ongoing commercial forestry operations within the surrounding area. The EIAR notes that some trees could be damaged from trenching. However, this would be avoided through design mitigation.
- 16.5.28. The EIAR states that construction noise disturbance to fauna would not be significant by reason that they are accustomed to vehicular traffic and agricultural activities, and the construction works would not significantly disrupt them.
- 16.5.29. Regarding water quality and aquatic fauna, the EIAR identifies the potential for surface water runoff to carry suspended solid contaminants into rivers and streams. This could affect aquatic fauna by degrading fluvial habitat and impairing feeding habitats. These effects are classified as short-term, reversible, and moderately negative, as shown in Table 6-12, which summarises the pre-mitigation effects on receptors. For eroding/upland rivers, hedgerows, and upland blanket bog, the construction phase effects are stated as having short-term, moderate negative effects, which are reversible. The EIAR states that the spread of invasive species is assessed as a permanent moderate negative effect, which is reversible with mitigation.
- 16.5.30. Regarding fauna, the EIAR assesses habitat loss for otters as short-term, imperceptible, with slight to moderate negative effects due to disturbance, which is reversible. Effects on aquatic macroinvertebrates and brown trout are assessed as short-term, moderate, and negative due to poor water quality, but these effects are reversible.
- 16.5.31. During the operational phase, the EIAR describes potential interference with habitats due to repair works and assesses their impacts on habitats and fauna as temporary, negative and of slight significance.
- 16.5.32. In the event of a "Do-Nothing" scenario, the EIAR states that the surrounding land would likely continue to be used for commercial forestry, and grassland habitats would continue to be farmed. The existing road network would be maintained and continue to function as a road.

### 16.5.33. Cumulative Effects

- 16.5.34. The EIAR states that the proposed development would overlap with the Carrownagowan Wind Farm, which has been granted permission. The EIAR details other projects in the surrounding area in Appendix 1-5, which include agricultural and residential development and wastewater systems. The report states these applications do not pose significant issues and, therefore, would not create cumulative impacts.
- 16.5.35. The EIAR describes the potential to interact with the Fahey Beg Wind Farm grid connection in two locations and Drummin Solar Farm grid connections in one location but states that coordination through the local authority Road Opening Licence process would ensure that any impacts on public roads are sequenced and managed effectively. It states that road closures or staggered timings would prevent significant cumulative effects.
- 16.5.36. Regarding the Ardnacrusha substation, the EIAR states that the EirGrid Station Manager would control traffic management, thereby avoiding any potential cumulative impacts.
- 16.5.37. Regarding relevant statutory plans, such as the Clare County Development Plan, the Clare Wind Energy Strategy, and the Shannon International River Basin Plan, the report states that there would be no significant cumulative effects. Future projects would be subject to Appropriate Assessment and Environmental Impact Assessments.

### 16.5.38. Mitigation Measures

16.5.39. The EIAR describes mitigation measures during the design, construction, and operation phases. At the design stage, the EIAR states that the route of the development is almost entirely confined to existing roads, diverging slightly at watercourse crossings, at some joint bay locations and where its length is shortened by a more direct route where it crosses fields and commercial forestry near its northern extent. Where it crosses watercourses, it is proposed to use underground directional drilling (HDD) or over-bridge in-road solutions to avoid instream works and disturbance to fluvial habitats. The report states that the site management controls set out in the Construction Environmental Management Plan (Appendix 2-2) would significantly decrease risks to water quality.

- 16.5.40. Regarding water quality, the EIAR indicates that water pollution, erosion, and runoff from excavated areas would be minimised through measures including observing slope conditions and pathways, using silt fencing or straw wattles, disturbing as little excavated area as possible, removing all excavated material along the route immediately to a licenced facility, and undertaking daily road cleaning.
- 16.5.41. Regarding Habitats, the EIAR states that the area of degraded upland blanket bog that would be directly lost at the northern end would be minimised by fencing to prevent access beyond the working area. The potential loss of treeline habitats at the northern end for 30m would be minimised by avoiding mature trees. The EIAR states that spoil from excavation would not be deposited on peatland.
- 16.5.42. Regarding invasive alien species, the EIAR states that the spread of Japanese Knotweed, Rhododendron, Giant Rhubarb and other invasive species recorded within the study area would be subject to containment measures as detailed in the Invasive Alien Species Management Plan (Appendix 6-3).
- 16.5.43. For the operational phase, the EIAR states that no further mitigation measures are required. Protocols, as detailed in the Construction Environmental Management Plan (CEMP), would be followed.

### 16.5.44. **Residual Effects**

- 16.5.45. The EIAR states that no significant residual effects during the construction, operational, and decommissioning phases would occur once mitigation measures have been implemented. Table 6-12 sets out predicted residual impacts for the key ecological receptors.
- 16.5.46. Regarding habitats, which include eroding/upland rivers, hedgerows/treelines, and upland blanket bog, the report describes potential short-term, imperceptible, negative effects as a result of degradation of water quality and habitat alteration. However, water quality controls and habitat reinstatement would reduce the impacts to negligible levels. The report states that mixed broadleaved and conifer woodland would have short-term, imperceptible, and negative effects due to habitat alteration.
- 16.5.47. Regarding Flora, the EIAR details how the spreading of invasive alien species has the potential risk of habitat loss and alterations, as well as impacts on water quality. The impact is assessed as permanent, moderate, and negative but reversible.

16.5.48. Regarding fauna, the EIAR indicates that otter and aquatic macroinvertebrates would experience short-term, imperceptible negative effects due to habitat loss and poor water quality. Brown trout would face short-term, imperceptible negative effects due to indirect disturbance displacement effects and poor water quality.

#### 16.5.49. **Assessment**

- 16.5.50. Having examined Chapter 6 of the EIAR, all associated documentation, and the submissions on file regarding biodiversity, I consider the proposed development would not result in significant adverse impacts on biodiversity. Direct effects on habitats and species have been clearly identified in the EIAR. While some habitats would experience disturbance and alteration, the loss of 200 sq.m. (40mx 4m) of degraded upland blanket bog, and minor root damage to treelines, these effects would not be significant due to the degraded state of the bog and the limited scope of habitat interaction. Section 6.3.2.1 of the EIAR states how "this portion of bog was previously drained, and as such, the hydrological regime of this peatland has been significantly altered by forestry and other developments, and it is a degraded example of bog habitat".
- 16.5.51. I consider that the proposed development's effects on habitats would not be significant. The proposed mitigation measures would mitigate potential impacts on habitats. The layout and design of the grid connection route, the proposed reinstatement of habitats and the avoidance of mature trees would minimise potential impacts. The grid connection route would mostly extend along existing roads and tracks, minimising the disturbance and displacement of habitats. As mentioned, the area of upland blanket bog in the northern section that would be affected is already degraded, and therefore, its loss would not be significant. Proposed measures for the reinstatement of habitats and preventing encroachment include replanting disturbed areas and confining works mostly to existing forestry tracks and public roads. The avoidance of mature trees along treeline habitats by way of pre-construction phase marking and fencing would protect root systems, as detailed in the CEMP (Appendix 2-2).
- 16.5.52. Regarding fauna, I concur with the EIAR that noise disturbance during the construction phase would not have a significant impact on species in the ZoI, because they are already accustomed to road traffic. In the absence of evidence to the contrary,

I do not consider impacts on species, including otter and aquatic fauna, would be significant in the long term. The proposed mitigation measures, including water quality controls as detailed in section 6.6.2.1 of the EIAR, would prevent significant adverse effects on these species and their habitats. Any displacement or disturbance would be short-term, temporary, and reversible. The proposal would not have a long-term negative impact on fauna.

- 16.5.53. The proposed development has the potential to have indirect effects on watercourses and water quality during the construction phase. However, I consider that potential risks are sufficiently mitigated. Mitigation measures include horizontal directional drilling to avoid in-stream works and sediment control measures such as silt fencing and straw wattles. These would mitigate potential impacts on the water quality of species such as brown trout and aquatic macroinvertebrates. I consider that potential impacts on aquatic fauna and their habitats would be minimal.
- 16.5.54. I do not consider that the proposed development would result in cumulative impacts with other existing and proposed developments in the area, including the permitted Carrownagowan Wind Farm, Fahey Beg Wind Farm Development Grid Connection and the Drummin Solar Farm Grid Connection. The phasing and coordination of these projects through road opening licences and road closures overseen by the local authority and Garda Síochána and traffic management measures at the Ardnacrusha substation would prevent significant cumulative impacts on biodiversity.
- 16.5.55. With regard to concerns raised in third-party submissions, including the potential impact on the Slieve Bernagh SAC and Glenomra Wood SAC, I note that the proposal would not involve direct disturbance to these Natura 2000 sites. I consider the concerns raised by the Department of Housing, Local Government, and Heritage regarding Glenomra Wood SAC and the potential introduction of invasive species is appropriately mitigated in the Invasive Species Management Plan (Appendix 6-3). As recommended by the Department, the proposed pre-construction surveys for species, including otters and bats, would ensure the protection of biodiversity.
- 16.5.56. Regarding the issues of habitat displacement and impact on species, such as the hen harrier, I consider the underground nature of the grid connection and its distance from sensitive breeding areas to minimise significant risk to protected

species. Confining construction works to existing roadways would prevent direct interaction with sensitive habitats and minimise any risk of disturbance to habitats.

16.5.57. Regarding Clare County Council's submission report, which highlights the proximity of the proposed development to the Lower River Shannon SAC, located c. 1.6km to the southwest and 4.3km to the east of the proposed grid connection cable route, I note that Chapter 7 of the EIAR (Water) indicates hydrological connectivity between the proposed development and the Lower River Shannon SAC, with surface water from the southern portion of the site flowing downstream via the Glenlon South, Blackwater, and Shannon Rivers to reach the SAC. The EIAR addresses this connectivity with mitigation measures for managing drainage and preventing sediment runoff, including erecting silt fencing, scheduled road cleaning to minimise sediment disturbance, and the immediate off-site disposal of excavated materials to licenced facilities. During periods of heavy rainfall, construction activities would be halted to prevent sediment flow into watercourses. I am satisfied these measures would protect water quality and aquatic biodiversity. Consequently, I consider that subject to the implementation of these mitigations, the proposed development would not significantly impact the water quality or biodiversity of the Lower River Shannon SAC or associated sensitive areas.

# 16.5.58. **Conclusion**

16.5.59. In conclusion, I consider the proposed development subject to the full implementation of the proposed mitigation measures would not significantly impact biodiversity.

# 16.6. Water

# 16.6.1. Issues Raised

16.6.2. Third-party submissions express concerns regarding significant risks to private wells along the proposed grid connection route. Observers submit that construction works, including the opening of roads and trenching, create a risk of surface water and groundwater contamination, impacting residents, livestock, and wildlife along the route. Concerns are raised about the potential risk of pollution at stream crossings.

Submissions also raised concerns over hydrological impacts on sensitive areas, including Lough Derg and the Lower Shannon.

- 16.6.3. The submissions from Clare County Council and the Prescribed Bodies raised no specific concerns regarding impacts on the water from the proposed development.
- 16.6.4. The applicant responded to third-party submissions stating that Horizontal Directional Drilling would prevent any interaction with watercourses, thereby protecting local water supplies. The applicant states that the phasing of trenching and daily backfilling would prevent water accumulation and contaminated runoff. Regarding groundwater, the applicant states that the mitigation measures in the EIAR would prevent significant impacts on groundwater and private wells. The applicant submits that the grid route has no hydrological connectivity with the Lough Derg SPA located over 6 km away and thereby poses no impact on this Natura 2000 site.

### 16.6.5. Methodology

- 16.6.6. The EIAR states that the methodology for assessing impacts on water included a desktop study, which examined geological, hydrological, hydrogeological, and meteorological data from sources including the EPA, GSI, Met Éireann, and NPWS. The EIAR states that field surveys were undertaken from 2018 to 2022. This included hydrological mapping, baseline monitoring of water chemistry, surface water sampling, and surveys of culverts to establish patterns of water flow and quality along the proposed grid route.
- 16.6.7. The EIAR details adherence to guidelines and best practices from the EPA, IGI, and DoEHLG, among others, to inform water quality and the assessment of hydrology. It states that the sensitivity of receptors was assessed based on the classification of importance of water, with receptors categorised as "not sensitive," "sensitive," or "very sensitive," according to criteria including groundwater vulnerability and aquifer importance.
- 16.6.8. The assessment adopts the source-pathway-receptor model to evaluate potential impacts, where impacts are classified by their character, magnitude and duration. The methodology includes seven steps, which include identifying sources of potential impact, defining pathways, evaluating the sensitivity of receptors, assessing premitigation impacts, proposing mitigation measures, defining residual impacts after

mitigation, and determining the significance of effects after the application of mitigation measures.

# 16.6.9. Baseline Conditions

- 16.6.10. The EIAR describes how the baseline environment of water balance was assessed using data sources from Met Éireann. The annual effective rainfall (ER) for the site is calculated to be 443.03 mm. The report states that the estimated recharge and runoff rates of the route vary between 177.21 mm/yr and 265.81mm/py.
- 16.6.11. The EIAR describes how the proposed development is located within two Water Framework Directive units, including the Shannon Estuary North in the northern section and Lower Shannon in the southern section. The report states how the grid connection would be installed along public roads and tracks and that the existing drainage regime would remain. The site is drained by the Killuran, Broadford, and Blackwater Rivers. Surveys of culverts were conducted between 2019 and 2022, which included taking flow measurements and surface water samples. Flows ranged from 11 to 500 l/s with pH levels classified as generally neutral-basic. The EIAR notes that no recurring flooding events were noted during the desk study.
- 16.6.12. The EIAR states that surface water sampling was conducted along the project route on several dates between 2019 and 2022. Electrical conductivity (EC) values from the samples ranged from 91.4 to 219.3 μS/cm, with the highest EC recorded in a stream near a road and housing estate near Ardnacrusha, which was most likely due to runoff. The report states that dissolved oxygen levels recorded at sampling locations along the grid route ranged from 10–12.4 mg/l, indicating unpolluted, well-oxygenated surface waters.
- 16.6.13. The EIAR details that the total suspended solids (TSS) values recorded on the 31<sup>st</sup> January 2019 exceeded S.I. No. 293/1988 standards, reaching 88 mg/l following heavy rainfall. TSS levels recorded on the 28<sup>th</sup> November 2022 were below the SI standard of 25 mg/l across all locations. Ammonia levels recorded in 2019 ranged from 0.06 to 0.14 mg/l, exceeding EQS values set out in S.I. No. 272/2009 for "good" and "high" status waters. Levels in November 2022 ranged from <0.02 to 0.06 mg/l, with the majority of sample readings within the EQS values in S.I. No. 293/1988. Orthophosphate levels were recorded as being below detection limits, with sample exceptions at SW23 (0.04 mg/l) in 2019 and SW24 (0.04 mg/l) in 2022 exceeding EQS</p>

limits. Nitrate levels ranged from <5 to 9.5 mg/l. Biological oxygen demand (BOD) was significantly above S.I. EQS values in samples from SW15 (10 mg/l) in 2019 and SW18 (8 mg/l) in 2022. Chloride samples ranged from 11.3 to 20.2 mg/l, within the normal range of chloride for surface waters, which the report indicated no issues with pollution from agricultural runoff or other sources.

- 16.6.14. Regarding hydrogeology, the EIAR states that geology along the northern section of the site passes through various aquifer classifications, including locally important aquifers (LI) and poorly aquifers (PI). Groundwater in the southern section flows southward towards the Shannon River. Near Ardnacrusha, there is a transition to a Regionally Important Karstified Aquifer (Rkd).
- 16.6.15. Groundwater vulnerability along the route ranges from low to extreme, depending on the depth of soil and subsoil. Groundwater recharge rates range from 5% to 80%.
- 16.6.16. The EIAR states that the proposed development passes along the boundary of the Slieve Bernagh Bog SAC, where within 30m at the northern end of the route, the SAC is upgradient of the grid route at this location. The proposed development is also located within the existing road in the Glenomra Wood SAC and pNHA. Surface waterbodies draining the grid connection in the northern section drain into the Doon Lough NHA, located c. 1.3km from the site, and is hydrologically connected with the site via the Owenogarney and Broadford Rivers. In the southern section of the route, surface water bodies drain into the Lower River Shannon SAC, located c. 6.7km downstream.
- 16.6.17. The EIAR notes that there are 2 no. Group Water Schemes within 5km of the very northern section of the route, which includes Bodyke GWS and the Raheen Road GWS. There are 12 no. mapped private wells within 2 km of the proposed development, 8 of which are located upgradient of the project.
- 16.6.18. Regarding receptor sensitivity, the report states that based on criteria set out in Table 7-1, groundwater along the majority of the route is classified as Sensitive to pollution due to high permeabilities in the upper few metres of the bedrock, and in places along the route where bedrock is classified as a Locally Important Aquifer and in the very southern portion of the route where the underlying bedrock is classified as

a Regionally Important Aquifer. The groundwater along the section of the grid route within the Ardnacrusha GWB is classified as Sensitive.

16.6.19. Surface waters, including the Killuran River, Broadford River and the Blackwater River, and associated tributaries are classified as very sensitive to contamination. The Designated Sites in proximity and hydraulically connected (surface water flow paths only) to the Proposed Development, including Slieve Bernagh Bog SAC, Glenomra Wood SAC and pNHA, Doon Lough NHA and the Lower River Shannon SAC, are considered very sensitive to impacts.

### 16.6.20. **Potential Effects**

- 16.6.21. The EIAR states that during the construction stage, earthworks, including the removal of vegetation, excavations and stockpiling, could result in sediment release into surface water. This would result in increased turbidity affecting water quality and fish stock in downstream rivers, including the Killuran, Broadford, and Blackwater rivers. The report classified potential impacts as negative, indirect, significant, and short-term.
- 16.6.22. Regarding groundwater levels and local private wells, the EIAR states that there would be no impacts on groundwater levels or private wells because of the shallow and temporary nature of the proposed works. The EIAR details how accidental spillage during refuelling poses a significant risk of pollution to groundwater, surface water, and their associated ecosystems. The report classifies pre-mitigation impacts as negative, indirect, slight, short-term, and unlikely for groundwater and negative, indirect, significant, short-term, and unlikely for surface water.
- 16.6.23. The report states that cement-based products pose a risk to aquatic and groundwater environments, potentially harming fish by raising pH levels above acceptable limits. The EIAR classifies potential effects on surface water quality as negative, indirect, moderate, and short-term, and having a negative, indirect, slight, short-term, likely effect to groundwater quality.
- 16.6.24. The EIAR states that there would be directional drilling at 8 no. watercourse crossings, which could impact surface water quality from frac-out. However, no instream works are proposed. The EIAR classifies the pre-mitigation effects as

negative, indirect, slight, temporary, and likely for surface water, and negative, indirect, slight, temporary, and unlikely for groundwater quality.

- 16.6.25. The report states that 9 no. watercourse crossings along the route would involve either horizontal directional drilling (HDD). This would require a service trench for the drilling on the road on either side of watercourses and 1 no. over-bridge in-road solution. The report states that there would be no direct interactions with any watercourse. The report states that any diversion, culverting and bridge crossings of watercourses could lead to negative, direct, slight, long-term, and unlikely impacts on stream morphology and surface water quality.
- 16.6.26. Regarding potential effects on the hydrology of Designated Sites, the EIAR states that c.434m would be located within the Glenomra Wood SAC boundary and would border the Slieve Bernagh SAC for 40m in the northern section. The report also details the site's hydrological connection to Doon Lough NHA and the Lower River Shannon SAC. The report states that although there would be potential pre-mitigation effects on these designated sites, their effects would be negative, direct, imperceptible, short-term, and likely on surface water quality within Glenomra Wood SAC, Doon Lough NHA and Lower River Shannon SAC. The report states that there would be potential negative, indirect, imperceptible, long-term, unlikely effects on groundwater levels and groundwater quality within Glenomra Wood SAC, Doon Lough NHA and Lower River Shannon SAC.
- 16.6.27. During the operational phase, the EIAR states that potential impacts on the water environment would be limited because all construction works would be complete, and the development would be static and underground. Proposed mitigation measures during any maintenance work would include drainage and sediment control, as well as mitigation measures preventing spills/chemical releases.
- 16.6.28. The report states that under the "Do-Nothing" scenario, the current hydrological regime would remain unchanged.

# 16.6.29. Cumulative Impacts

16.6.30. Other developments in the area assessed with regard to cumulative effects are listed in Appendix 1-5. The EIAR states that the majority of the proposed development would extend along existing public roads, which reduces its potential impact on water

quality. The report describes the potential for interactions with the Fahey Beg Wind Farm grid connections in two locations and Drummin Solar Farm grid connections in one location within Ardnacrusha. Each project located within the public road network would have to apply to the local authority for a Road Opening Licence, where timelines would be agreed upon and sequenced. Any interactions at the Ardnacrusha substation would be controlled by the Ardnacrusha EirGrid Station Manager, who would implement traffic management measures, preventing potential cumulative impacts.

16.6.31. The EIAR states that the large geographical nature of the proposed grid connection works, where works would extend across several sub-catchments and be completed over several months, combined with the lack of in-stream works, would prevent significant cumulative impacts. Regarding potential cumulative impacts with the permitted wind farm development, the report states that due to hydrological separation and that the works would be constructed as part of the permitted wind farm, the potential for cumulative impacts on the water environment would not occur.

### 16.6.32. **Mitigation Measures**

- 16.6.33. Proposed mitigation measures during the construction phase of the proposed development to minimise impacts on water include the following:
  - Install temporary silt fencing and silt traps, including straw bales, on roadside and field drainage features to capture suspended sediments.
  - Any excavated materials would either be removed to licensed facilities or temporarily stored near the site for reuse for reinstatement works.
  - Refuelling on-site would generally be avoided. However, if necessary, fuel storage areas would be bunded with storm drainage systems and appropriate oil interceptors.
  - Plant and equipment would be regularly inspected for leaks and fitness.
  - Spill kits would be available in the event of accidental spillage from plant or equipment.
  - An emergency spill response plan is included in the Construction Environmental Management Plan (Appendix 2-2).

- Only ready-mixed concrete would be used, with chute cleaning restricted to lined cement washout ponds.
- Timing concrete work with weather forecasts for dry conditions.
- Keep pour sites free of standing water and cover them in case of sudden rain.
- Bunding will be done using terram and sandbags for directional drilling around the bentonite batching, pumping, and recycling plant to contain any spillages.
- Construction activities would be restricted within a defined constraints zone around stream crossings.
- There would be no stockpiling of construction material and no truck chute cleaning.
- Works would not occur during periods of high rainfall.
- Plant would travel across bare ground at a maximum of 5km/hr, and bog mats would be used to protect tracked areas as necessary.
- Silt fencing would be erected on slopes toward watercourses if required. Spill kits would be available with all relevant plant to complete stream crossings.
- No part of the development would drain to the Slieve Bearnagh SAC, which is located upgradient of the proposed development.
- 16.6.34. The report states that to protect downstream designated sites, including Glenomra Wood SAC, Doon Lough NHA, and Lower River Shannon SAC, the proposed mitigation measures outlined in the EIAR would be put in place and implemented. This includes the implementation of drainage control measures, sediment control, and spill management.
- 16.6.35. The EIAR states that, with the implementation of these mitigation measures, the quality of runoff during the construction phase would remain 'Good,' thereby ensuring no significant impact on local streams or rivers. The report states that the hydrological regime would not be affected by the proposed development. No significant dewatering is proposed, and no deep foundations or trenching beyond shallow depths would be required.
- 16.6.36. For the operational phase, the EIAR states that any minor maintenance works along the grid route would implement mitigation measures similar to those in the construction phase. These measures, including drainage control measures and

sediment and spill control, would ensure that the quality of runoff from along the grid route during maintenance will be good.

### 16.6.37.**Residual Effects**

- 16.6.38. The EIAR states that earthworks could cause the release of sediment into watercourses, but effective sediment control measures would minimise residual impacts on downstream rivers and aquatic ecosystems, with no significant impact on surface water quality. The report states that shallow excavations would not significantly affect groundwater levels or local well supplies, and thereby no significant effects on groundwater levels or water supplies would occur.
- 16.6.39. The potential release of hydrocarbon emissions poses a risk to surface and groundwater. The EIAR states the proposed mitigation measures would ensure a negative, imperceptible, indirect, short-term, and unlikely residual impact on water quality. The report states that the proposed mitigation measures reduce the potential of cement-based product release affecting water quality, resulting in a negative, imperceptible, indirect, short-term, and unlikely residual impact on surface and groundwater quality.
- 16.6.40. The EIAR states that directional drilling works have a negligible, imperceptible, indirect, short-term, and improbable influence on surface water quality at water crossing locations, with sediment control methods preventing significant effects. The EIAR estimates that morphological changes to surface watercourses and drainage patterns would have no significant effect on stream morphology and water quality, and their effects would be negative, imperceptible, direct, long-term, and unlikely.
- 16.6.41. The EIAR states that the proposed drainage mitigation measures would prevent significant effects on designated sites, including Slieve Bernagh Bog SAC, Glenomra Wood SAC, Doon Lough NHA, and Lower River Shannon SAC.
- 16.6.42. The EIAR indicates that during the operation phase, with the implementation of the proposed mitigation measures, residual effects on all downstream surface water bodies would be negative, imperceptible, indirect, long-term and unlikely. The EIAR states that avoiding large excavation work during decommissioning would ensure that residual effects on the water environment are negative, direct, imperceptible, and unlikely.

### 16.6.43. **Risk of Major Accidents and Disasters**

- 16.6.44. The EIAR assesses the risk of major accidents and disasters, noting that the Construction Environmental Management Plan (CEMP) sets out the Emergency Response Procedure to be implemented in the event of potential water emergencies, e.g. water contamination, extreme weather events and flooding.
- 16.6.45. Regarding hydrological risks, the EIAR states that no recurring or historic flood incidents were recorded on the site and that no parts of the site are mapped within any fluvial flood zones (Flood Zones A B), resulting in a very low risk of flooding. The report states that with the exception of a minor area near the Blackwater River, the site lies within Flood Zone C, which has a low probability of flooding.
- 16.6.46. Regarding contamination, the EIAR states that the proposed development poses a very low risk to surface water and groundwater contamination due to the implementation of robust waste management and pollution prevention measures for refuelling and managing hazardous materials and cement-based products. The report states that these mitigation measures would ensure no significant effects on surface water quality and groundwater quality within the vicinity and downstream of the site.

### 16.6.47. **Assessment**

- 16.6.48. Having examined and evaluated Chapter 7 of the EIAR and all associated documentation and submissions on file, it is my view that the proposed development would not result in significant adverse effects on water environments, including surface and groundwater.
- 16.6.49. I note the third-party submission's concerns regarding risks of contamination associated with the construction activities of the proposed development, in particular regarding private wells and sensitive water bodies such as the Lower Shannon and Lough Derg. However, I consider that the proposed mitigation measures outlined in the EIAR would adequately address these concerns. These include the proposed sediment and hydrocarbon management measures, restrictive measures at watercourse crossings, and the use of pre-mixed concrete along with containment control measures, which would substantially reduce the risk of contamination. The precautionary design and procedural approach in the Construction Environmental Management Plan (CEMP) would ensure that effects are unlikely to occur.

- 16.6.50. The CEMP (Appendix 2-2) details mitigation measures to protect the water environment during construction activities. Mitigation measures include stringent control measures for surface water runoff, sediment, and erosion, in particular at watercourse crossings. Temporary silt fencing, straw bales, and silt traps would be installed along drainage channels along the grid to capture any suspended sediments. Refuelling activities would be minimised on the site, and any required storage areas would be appropriately bunded with spill kits to hand. These measures would prevent pollution from fuel and oils and refuelling activities.
- 16.6.51. Proposed concrete management measures would ensure that ready-mixed concrete is used, and chute cleaning would be restricted to lined washout ponds. The timing of pours would coordinate with dry weather forecasts, which would prevent contaminated runoff. Areas of directional drilling would incorporate containment bunds around equipment and use biodegradable drilling fluids to minimise the risk of contamination of groundwater and surface water. I am satisfied that implementing these proposed mitigation measures would prevent significant adverse impacts on the water environment.
- 16.6.52. Regarding indirect effects on groundwater, I consider that the shallow depths of excavation works required and the location of proposed works, mostly on existing roads and tracks, minimise potential impacts on aquifers and reduce the likelihood of groundwater pollution. I note the EIAR's classification of aquifer vulnerability as low to extreme along different sections of the route. However, I consider that the implementation of strict containment and spill response measures would adequately protect groundwater quality, mitigating any significant residual impacts.
- 16.6.53. Regarding cumulative impacts, I consider that interaction with other nearby developments, including the Fahey Beg Wind Farm and Drummin Solar Farm grid connections cable routes, would not create a risk of significant cumulative impact to water quality. These developments are separated hydrologically, and their activities along public roads would be effectively managed and coordinated by road opening licenses subject to oversight by the local authority and the EirGrid manager at Ardnacrusha. This would prevent significant cumulative impacts to water resources. Residual impacts would not be significant.

# 16.6.54. **Conclusion**

16.6.55. In conclusion, I consider that the proposed development, subject to the implementation of the proposed mitigation measures, would not result in significant adverse effects on water quality and hydrology.

### 16.7. Land and Soil

#### 16.7.1. Issues Raised

- 16.7.2. Third-party submissions expressed concerns regarding how excavations could destabilise soil, contaminate local wells, and degrade peatlands in sensitive areas. Observers questioned how peatlands would be protected from erosion, siltation, and invasive species during excavation activities. Concerns were also raised regarding the potential impacts of heavy machinery movement along narrow, rural roads, which could impact the structural integrity of roads and property along the route.
- 16.7.3. Clare County Council and the Prescribed Bodies did not raise any specific concerns regarding impacts on land and soil from the proposed development.
- 16.7.4. The applicant responded by stating that construction methods, including horizontal directional drilling, would prevent impacts with watercourses, soil and groundwater. The applicant states that trenches would be backfilled daily, and the phasing of work would prevent disturbance and erosion of soil. The applicant states that the route of the proposed development was selected to avoid sensitive conservation areas and minimise impacts on peatland and soil. The applicant states that the peatlands are degraded and of low ecological importance. The applicant submits that the mitigation measures in the EIAR prevent impacts on land and soil.

#### 16.7.5. Methodology

- 16.7.6. The EIAR methodology included a desktop study and field surveys. The desktop study included an analysis of OS Maps and environmental databases on geology and geomorphology. Walkover field surveys and baseline monitoring were conducted between 2018 and 2022.
- 16.7.7. The EIAR states that it adheres to relevant guidelines. Regarding hydrology, the study area includes an examination of groundwater under, downgradient and within the Zol of the proposed development. The scope of assessment criteria uses NRA criteria,
identifying importance levels from "Very High" to "Low" based on factors including degree of contamination and resource value. Impact descriptors follow EPA guidance (2022), classifying impacts by their extent, magnitude, complexity, probability, duration, frequency, and reversibility with reference to their degree and direct and indirect effects.

# 16.7.8. Baseline Conditions

- 16.7.9. The EIAR describes the existing land use along the proposed grid connection as mainly public transport roads, forestry access tracks, agricultural land, and permitted wind farm access roads, with surrounding land mostly agriculture and residential. The southern section at Ardnacrusha is urban.
- 16.7.10. Bedrock consists mainly of Old Red Sandstone and Silurian meta-sediments, with sandstone, shales, and limestone formations at the far southern end. Soil types are identified as mainly acidic, deep, well-drained mineral soils at the northern and middle sections and acidic, deep, poorly drained mineral soils at the southern end, with subsoils comprising mainly sandstone and shale tills.
- 16.7.11. The EIAR states that there are no mapped geological heritage sites within the application site and that nearby geological heritage sites, such as Ballymalone and Ballyvorgal South, contain fossil assemblages from the Ordovician and Silurian ages. GSI mapped crushed and granular aggregate along the route is rated as Low to Moderate by the Geological Survey of Ireland.

## 16.7.12. **Potential Effects**

16.7.13. During the construction phase, the EIAR states that minor temporary changes to land and topography would occur due to road openings and local traffic diversions necessary for the construction of the proposed grid connection route. Construction works are estimated to last 6-8 months. Temporary traffic management measures along the grid route would include alternating one-way stop/go traffic and temporary road closures with local diversion routes, as described in the Traffic Management Plan (Appendix 2-3) and the CEMP (Appendix 2-2). The report states that this would have a temporary moderate short-term negative impact on road users, local landowners and property owners/residents in the vicinity of the route. However, once complete, the report states that the development would not affect existing or further land uses.

- 16.7.14. The EIAR states that excavation of soils, subsoils, and bedrock along the route would result in temporary and transient disturbance of road surfaces, subsoil, and bedrock. Pre-mitigation, this would have a stated negative, slight/moderate, direct, likely permanent effect on soils, subsoils and bedrock.
- 16.7.15. Regarding soil contamination, the EIAR states that there is the potential for soil/subsoil to become contaminated following the spillage of chemicals from fuel. The report states that pre-mitigation this would have a negative, direct, slight, short-term, unlikely effect on soil, subsoil and bedrock.
- 16.7.16. During the operation phase, the EIAR states that occasional excavation work would be required along the route for the repair of faults. However, these works would be temporary and short-term, having a negative pre-mitigation effect on soils, subsoils, and bedrock. The report states that potential fuel/oil spills during the operational stage vehicles would have a similar potential effect.
- 16.7.17. The report states that land, soil, and geology would remain unaltered in a donothing scenario. Regarding cumulative impacts, the EIAR states that interactions with other developments, including the Fahy Beg Wind Farm and Drummin Solar Farm grid connections, would be managed by the local authority through the road opening licence process. Interaction with the proposed development and developments within the Ardnacrusha substation will be controlled by the Ardnacrusha EirGrid Station Manager, who would implement traffic management measures, thereby avoiding potential cumulative impacts. The EIAR states that impacts on land soil and geology would not extend beyond the vicinity of the excavations/works and concludes that cumulative impacts between the proposed development and the other existing, permitted development, as listed in Appendix 1-5, would not occur.

## 16.7.18. Mitigation Measures

- 16.7.19. The EIAR states that no specific mitigation measures are required for land use as the land take would be small and the duration of construction works would be temporary.
- 16.7.20. Regarding excavations, the EIAR details that the existing road network would be used as much as possible to reduce subsoil excavation volumes. All excavated material would be exported to a licensed facility or reused for reinstatement works and

site restoration. Fuel storage areas, if required, would be bunded. Construction plant would be regularly inspected for leaks. An emergency plan for the construction phase to deal with accidental spillages is contained within the CEMP (Appendix 2-2). Spill kits would be available to deal with accidental spillages.

16.7.21. During the operation phase, the proposed mitigation measures include minimising the area and duration of work, temporarily storing materials for reuse and reinstatement, off-site refuelling and bunding of fuel storage areas if required.

## 16.7.22. **Residual Effects**

- 16.7.23. The EIAR stated that during the construction phase, residual effects on land would be small and limited mostly to existing roadways. The report states that effects on land and land use would not be significant. Regarding excavations, the EIAR classifies the soil and subsoil at the site as "Low to moderate" and the peat deposits as "Low" as they are degraded by historical harvesting and drainage. The EIAR states that the residual effect on peat and subsoil would be negative, direct, slight, likely, and permanent, and the impact on bedrock would be negative, direct, slight, unlikely, and permanent.
- 16.7.24. Regarding potential soil contamination from spillages, the EIAR states that subject to the implementation of the mitigation measures, no significant effects on land, soils, subsoils, or bedrock will occur.
- 16.7.25. During the operation phase, the EIAR states that emergency repair works, if required, would implement the mitigation measures as proposed for the construction phase. The report states that residual effects on soils, subsoils, and bedrock would be negative, direct, imperceptible, unlikely, and permanent. The report states that no significant effects on soils or subsoils would occur during the operation phase.

## 16.7.26. **Risk of Major Accidents and Disasters**

16.7.27. The EIAR states that the procedures in the Emergency Response Procedure in the CEMP would reduce the potential for incidents such as contamination, infrastructure loss, or accidents. The report states that the design and construction of the proposed development would adhere to best practice measures, thereby mitigating the risk of major accidents and/or disasters.

16.7.28. Regarding peat stability, the EIAR states that there are no recorded occurrences of historical landslides on or near the site. The closest landslide event was in 2003, c. 4km west of the northern section. The report states how the GSI Landslide Susceptibility Maps classifies the site's landslide risk as predominantly "Low" to "Moderately Low". The report states that given that the project extends along existing roads and tracks where no peat is mapped, the risk of landslides occurring due to peat instability at the site is very low. The report states that the risk of the proposed development contributing to an increased risk of landslides within the vicinity of the site is very low by reason that site excavations would be localised, shallow, and temporary in nature.

### 16.7.29. **Assessment**

- 16.7.30. Having examined Chapter 8 of the EIAR, associated documentation, and submissions on file, I consider the proposed development would not have significant adverse effects on land and soil by reason of its confined location, limited scope of impact, and the proposed mitigation measures.
- 16.7.31. Potential direct and indirect effects from the proposal on land and soil would primarily arise from trenching/excavation works, contamination and soil stability. However, I consider these risks to be adequately mitigated through the proposed mitigation measures. Impacts during the construction phase would include temporary excavation, which would be limited to the grid connection route, which would, for the most part, extend along existing roads and forestry access tracks. I consider that the temporary nature of these impacts and the proposed reinstatement measures would effectively minimise long-term disturbance to soil and land use.
- 16.7.32. The excavation, disposal and storage of soil, subsoil, and peat would be appropriately managed with their disposal to licensed waste facilities or used for the backfilling and reinstatement of land. The potential for soil destabilisation or degradation in sensitive peatland areas would be avoided or disturbed to a minimum extent. The route of the grid connection cable avoids areas with significant peat deposits or high geological sensitivity, which I consider reduces the risk of soil erosion, subsidence, or peat slippage.
- 16.7.33. Regarding the possibility of contamination of soil or land, I consider the proposed mitigation measures would effectively prevent the risks of contamination.

Proposed mitigation measures include the use of bunded fuel storage, routine inspections of plant and machinery, and the implementation of emergency plan procedures in the event of an occurrence, as detailed in the CEMP. The likelihood of accidental fuel spills would be low and appropriately mitigated in the event of an occurrence.

- 16.7.34. I consider that residual impacts on land and soil would be minimal during the operational phase. Repair and maintenance activities would be infrequent, and any excavation required would be temporary. The proposed mitigation measures for spillages during the operation phase would mirror those proposed for the construction phase, thereby preventing soil and land contamination.
- 16.7.35. The CEMP in Appendix 2-2 includes mitigation measures to prevent significant adverse effects on land and soil. Excavations would be managed to limit soil and subsoil removal. Any excavated materials would be either disposed to licensed waste facilities or temporarily stored near excavation works for the backfilling and reinstatement of land. Surface water runoff would be controlled through measures, including silt fencing and sediment traps, preventing sedimentation and minimising erosion. Fuel would be stored in bunded areas, reducing risks of contamination. Emergency spill response procedures are detailed, and spill kits would be readily available to address accidental leaks or spills. I consider these mitigation measures would adequately protect the quality of land and soil throughout the stages of the development.
- 16.7.36. I do not consider the proposed development would have significant adverse cumulative impacts with nearby projects, including the Fahey Beg Wind Farm and Drummin Solar Farm grid connection works. The requirement for road opening licences, with oversight by the local authority and also oversight by the EirGrid Manager at Ardnacrusha station, would ensure there are no significant cumulative effects on land and soil.
- 16.7.37. The third-party submissions raised valid concerns regarding excavations and soil stability, contamination risks and potential degradation of peatland. However, I am satisfied that these issues have been adequately addressed by the proposed mitigation measures.

### 16.7.38. **Conclusion**

16.7.39. In conclusion, I consider that subject to the implementation of the proposed mitigation measures, the proposed development would not have significant adverse effects on land or soil. Any impacts would be temporary, limited in extent, and would not create a significant risk of long-term or cumulative degradation of the quality and stability of land and soil. The proposed mitigation measures would prevent the identified impacts on land and soil.

## 16.8. Noise and Vibration

## 16.8.1. Issues Raised

- 16.8.2. Third-party submissions raised concerns regarding increased noise and vibration from construction traffic, excavation works and drilling activities, particularly near residential dwellings and along narrow rural roads. It is submitted that these activities would cause disturbance, impacting residential amenities and structural damage to nearby properties. Concerns were also raised about cumulative impacts from the proposed development with other nearby developments, questioning whether sufficient mitigation measures have been proposed to minimise disturbance during the construction and operational phases.
- 16.8.3. The Local Authority and Prescribed Bodies raised no concerns or issues regarding noise or vibration.
- 16.8.4. The applicant responded to the concerns regarding noise in the third-party submission, stating that the EIAR includes noise mitigation measures. For the operation phase, the applicant states that no noise mitigation is necessary as the proposed development would be underground and would not generate noise. The applicant states that potential cumulative noise impacts would be managed through the Road Opening Licence process with coordination by the Local Authority.

## 16.8.5. Methodology

16.8.6. The methodology for assessing noise and vibration impacts states that it adheres to best practice and professional judgement. The methodology includes a desktop review of previous information on the Noise and Vibration EIAR Chapter of the Carrownagowan Wind Farm, which details baseline noise data for the proposed development. The EIAR states that no new background noise monitoring was

necessary as previous measurements from October 2018 remain accurate, based on a site visit in November 2022.

- 16.8.7. The EIAR states the area has low background noise, which is typical of rural locations with no major dominant noise sources. The report notes the absence of mandatory construction or operational noise limits in Ireland specifically for the proposed development. It references best practice guidelines such as BS 5228, EPA Guidance Note for Noise (2016), and TII's Good Practice Guidance for the Treatment of Noise guidelines (2014).
- 16.8.8. The EIAR states that the scope of the assessment includes establishing existing baseline noise conditions at representative noise-sensitive receptors, establishing noise limits as per best practice and guidelines, and predicting noise emissions from the project at noise-sensitive receptors for comparison against noise threshold criteria. The report states that traffic noise is scoped out from further assessment as the increase from construction traffic would not be significant. Because of the underground nature of the cable, noise and vibration impacts during the operation phase, including cumulative effects, are scoped out, as there would be no noise or vibration once installed.
- 16.8.9. Regarding assessment criteria, the EIAR states that the noise significance of effects is based on the EPA's guidelines for EIARs (2022). The EIAR states that, in the absence of statutory noise limits during construction in Ireland, thresholds in BS 5228 have been adopted, which specifies noise levels for different times of day. Category A thresholds (applied to low ambient noise areas) are set at 65dB LAeq(T). The EIAR states that these thresholds in BS 5228 are usually applied to large construction sites, with lots of operating machinery, in densely populated areas, and to projects which are likely to continue for a prolonged period where there is potential for significant adverse impacts to residential amenities.

## 16.8.10.**Baseline Conditions**

16.8.11. The EIAR states that the main sources of noise in the area include traffic on local and regional roads, agricultural and forestry machinery, wind noise in vegetation, and water noise in streams. The report states that there are 163 residential dwellings within 50m of the route as primary noise-sensitive receptors and that noise influence dissipates quickly beyond this distance.

16.8.12. The EIAR describes that these receptors are accustomed to elevated noise levels due to road traffic. The report states that construction hours would be limited to 8:00 am to 8:00 pm on weekdays and 8:00 am to 6:00 pm on Saturdays (if required), with no construction work during the night or Sundays. The EIAR states that no new permanent noise sources will be introduced into the environment after the construction phase.

## 16.8.13. **Potential Effects**

- 16.8.14. The EIAR states that potential noise impacts during the construction phase would come mostly from trench excavation machinery, which has noise emissions of 79dB at 10 metres for 30-50 tonne tracked excavators. The report states that this noise is similar to agricultural tractors common to the area and would operate in phases of 100-200 metres of road sections at any one time. The report states that they would move at a quick pace that limits exposure at any noise-sensitive receptor to not more than 1 to 2 days. The EIAR states that construction works would take c. 8 months, with cabling trenching undertaken over the first 4 months and joint bay works over the next 4 months, with 35 joint bays requiring 1-2 days of work each. The report states that the effect would be temporary, negative, and slight to moderate at noise-sensitive receptors near construction works areas before mitigation.
- 16.8.15. At watercourse crossings, the EIAR states that horizontal directional drilling would occur at 9 no. locations, which would involve temporary launch pits/trenches in the road on either side of each crossing. Noise effects are estimated to be slight to moderate, temporary, and negative at noise-sensitive receptors.
- 16.8.16. During the operational phase, the EIAR states there would be no noise or vibration emissions due to the cable being underground. Required maintenance would be occasional and unlikely to be a significant source of major noise nuisance and disturbance.

## 16.8.17. **Cumulative Effects**

16.8.18. The EIAR states that during the construction phase, potential cumulative noise and vibration impacts would be minimal. It details that the construction of the proposed development would overlap with the permitted Carrownagowan Wind Farm and site development works. However, due to its 1km distance from residential receptors, potential cumulative impacts are deemed temporary, negative and imperceptible to slight.

- 16.8.19. Regarding forestry operations in the area, the EIAR states forestry operations would continue for the duration of the construction phase. However, this would take place within the commercial forestry stand, which is distant from the grid works area. The report states that any cumulative impact can be avoided through timing.
- 16.8.20. The report states that potential interactions with the proposed Fahy Beg Wind Farm Grid Connection and Drummin Solar Farm Grid Connection in specific locations would be managed through the local authority's road opening licence process, where timelines would be agreed upon and connections sequenced, thereby avoiding significant cumulative effects.

## 16.8.21.Mitigation Measures

- 16.8.22. During the Construction phase, the EIAR states that as there would be no significant effects, there is no requirement for specific construction phase mitigation measures. Best practice from BS5228 –1&2:2009 + A1 2014 Code of Practice for the Control of Noise and Vibration on Construction and Open Sites would be adopted. This includes:
  - A pre-construction commitment to manage noise nuisance and notify and consult with affected parties where necessary.
  - Restricted work hours from 8:00 am to 8:00 pm on weekdays, 8:00 am to 6:00 pm on Saturdays and no work on Sundays or Bank Holidays, unless in the event of an emergency, subject to prior agreement with Clare County Council.
  - Construction contractors would comply with noise-level regulations, including the EC (Construction Plant and Equipment) Regulations and the Safety, Health, and Welfare at Work (Control of Noise at Work) Regulations.
  - In accordance with BS 5228 standards, minimise unnecessary revving, use lownoise equipment where possible, use effective silencers, position noise-generating equipment so that noise is directed away from sensitive receptors, and undertake regular maintenance of machinery.

- Train staff in the proper use and maintenance of tools, shutting down or throttling machinery when not in use, sequencing the start-up of machinery, maintaining internal access tracks, and minimising drop heights for materials like gravel when practicable.
- 16.8.23. The EIAR states that no mitigation measures are required during the operation phase.

#### 16.8.24. **Assessment**

- 16.8.25. Having examined Chapter 9 of the EIAR as well as all associated documentation and submissions received, I consider that the EIAR has adequately identified and addressed the direct, indirect and cumulative effects of the proposed development on noise and vibration.
- 16.8.26. The main impacts from noise and vibration would arise during the construction phase from excavation works, drilling, and associated construction vehicular movements near residential dwellings. I am satisfied that noise impacts and emission levels have been adequately quantified in the EIAR and would accord with best practice guidelines, including BS 5228 Code of Practice for noise and vibration control on construction and open sites. The EIAR's assessment of noise and vibrations aligns with standard methodologies, which in this instance included establishing baseline noise levels in the mostly rural areas along public road corridors and identifying relevant assessment criteria for assessing impacts.
- 16.8.27. I consider the temporary and minor nature and the limited extent of the noiseemitting construction works, along with the proposed mitigation measure, which aligns with best practice, would prevent adverse impacts on sensitive receptors beyond minimal, short-term disruption. In the absence of evidence to the contrary, I accept the EIAR's exclusion of noise impacts during the operation phase as logical and appropriate, given that the cable would be underground.
- 16.8.28. I consider the proposed mitigation measures specified in the EIAR would minimise noise impacts during construction. The proposed mitigation measures include limiting construction hours, providing advance notification to affected parties along the route, and adhering to noise regulations. I am satisfied that these procedures would prevent adverse impacts on sensitive receptors along the grid connection route.

The requirement for Road Opening Licences would allow Clare County Council to coordinate and manage overlapping construction operations.

16.8.29. I note that building activities may overlap with other projects in the vicinity, such as the Carrownagowan Wind Farm and forestry operations in the northern section. However, I consider that the distance between these projects and sensitive receptors, as well as the project's phasing, would reduce major noise impacts. Given that there would be no noise or vibration throughout the operation phase, I consider there would be no significant residual noise or vibration impacts following the completion of the development. I consider that the proposed mitigation measures adequately address the noise issues raised by third parties.

## 16.8.30. **Conclusion**

16.8.31. I conclude that subject to the implementation of the proposed mitigation measures, the proposed development would not adversely affect sensitive receptors in the surrounding area through noise or vibration impacts.

### 16.9. Cultural Heritage

#### 16.9.1. Issues Raised

- 16.9.2. Third-party submissions raise concerns regarding potential damage to Protected Structures along the proposed route, including Kilbane Bridge, Holy Wells and Megalithic Tombs. Observers question whether archaeologist monitoring alone would adequately protect these cultural heritage sites during construction. It is submitted that excavations, directional drilling, and increased traffic during construction would affect the stability and integrity of these heritage sites and impact the cultural heritage of the landscape.
- 16.9.3. The Department of Housing, Local Government, and Heritage reviewed the Archaeological Impact Assessment. While concurring with archaeology and cultural heritage findings in the EIAR, the submission recommends implementing the proposed mitigation measures. Furthermore, the Department requests that the CEMP provide detailed mapping of archaeological and cultural heritage constraints, including direct and indirect impacts and that a final Archaeological Report be submitted to Clare

County Council and the National Monuments Service following the completion of the development.

- 16.9.4. The Planning Authority did not raise any concerns regarding Cultural Heritage.
- 16.9.5. In response to concerns regarding cultural heritage, the applicant states that the EIAR lists cultural heritage assets close to the grid connection path and details mitigation measures to protect these sites. The applicant states that horizontal directional drilling would be used to prevent damage to Protected Structures. The applicant states that the Invasive Species Management Plan (Appendix 6-3) details the risks associated with Glenomra Wood SAC. The applicant states that the mitigation measures detailed in the EIAR would be implemented as per the Department's recommendation.

## 16.9.6. Methodology

- 16.9.7. The EIAR states that the methodology used to evaluate cultural assets included desktop research and filed inspections. The desktop study examined sources including the County Development Plan, the National Monuments Database, the Record of Monuments and Places, the Sites and Monuments Record, the Record of Historic Monuments, Preservation Orders, and maps and aerial photos. The EIAR states that the development boundary includes no national monuments or sites with preservation orders.
- 16.9.8. The EIAR states that a study area of 250 meters from the site boundary was applied to examine impacts on heritage sites. This buffer was applied based on precedence and professional judgment. The field inspection examined the condition of known sites and features in the project area that might have historical, architectural, archaeological or cultural importance. The EIAR states that the assessment identified the location of cultural assets, the likelihood that unrecorded remains would be found, and the need for mitigation measures. The study concludes with an evaluation of possible effects based on the EPA's significance criteria, which range from 'imperceptible' to 'profound'.

## 16.9.9. Baseline Conditions

16.9.10. The EIAR describes the cultural heritage baseline for the proposed development, which traverses 25 townlands in County Clare. The EIAR states that

while no recorded Mesolithic sites within the 250m study area exist, archaeological evidence exists from later periods. The EIAR identifies from the early Bronze Age a wedge tomb (AH 01) in Cloongaheen West, located c. 111m west of the proposed site on the slopes of Slieve Bernagh mountains (refer to Figs. 10-2, a-d). The EIAR also identifies a burnt mound (CL053-036) located c. 494m southeast of the site.

- 16.9.11. From the Early Medieval Period (c. AD 400–1169), the EIAR identifies 11 no. enclosures (AH 02-08, 10-12, and 16) within the study area, with the nearest enclosure (AH 03) located c. 34m south of the route. The EIAR also provides details of Holy Island (Inis Cealtra) on Lough Derg, located c. 10.5km northeast, which was founded in the 6<sup>th</sup> century and is home to over 200 recorded monuments. This National Monument served as an important pilgrimage site.
- 16.9.12. From the medieval period, the EIAR identifies an unclassified tower house or castle in Caherhurley, c. 1.9km north of the proposed route. The EIAR identifies several structures from the post-medieval period, including 'Trough Castle' (AH 15), an 18th–19th-century house, located c. 98m east of the route and two former demesnes including Ballyquin House (DL 01) and Roo Cottage/Trough Castle (DL 02). The EIAR states that various vernacular farmsteads, visible on historic maps, are recorded across the landscape, many of which have been demolished.
- 16.9.13. From cartographic analysis, the EIAR notes how the First Edition OS map 1840–42 shows Kilbane Bridge (BH 01) and its surrounding structures (CH 28), the demesne landscape of Ballyquin House (DL 01), a gate lodge (CH 42) west of the site roadway and the demesne of and Roo Cottage (DL 02), adjacent to the proposed route. The OS map 1893 shows the construction of Trough Castle (AH 15) replacing Roo Cottage.
- 16.9.14. From aerial photography (1995-2022), the EIAR identifies no additional unknown archaeological features along the route, and the Excavations Bulletin (1970 2023) indicates no previous archaeological excavations along or within the 250m study area. Topographical files reveal the discovery of a polished stone axe (NMI Ref: IA/L/1978:1) in Ardnacrusha at the southern end of the route, which suggests prehistoric activity.
- 16.9.15. The EIAR's assessment of archaeological heritage identifies 16 no. recorded monuments (AH sites) within the receiving environment. These include a wedge tomb

at Cloongaheen West (AH 01, located c.111m west of the site), several enclosures (e.g., AH 03, located c. 34m south and AH 10, c. 43m north of the site), and a church and graveyard at Trough (AH 13 and AH 14, c. 5m west of the site). The EIAR states that the development passes through several Zones of Notification for these sites. However, it notes that Section 12 notification does not apply to the proposed development as the project is proceeding through the statutory planning process.

- 16.9.16. Regarding designed landscapes, the EIAR identifies the demesne of Ballyquin House (DL 01) directly adjoining the route and records that its main features are unrecognisable, and Trough Castle (DL 02) immediately east of the route.
- 16.9.17. The EIAR details that 3 no. Built heritage assets are within the study area. This includes Protected Structure, Kilbane Bridge (BH 01, directly on the route), NIAH designated, Glenomra House (BH 02, 207m west of the site), and the Church of the Mother of God (BH 03, 17m south of the project). The EIAR details a range of cultural heritage assets in Table 10-5 of the EIAR within the receiving environment of the proposed development. They mainly include vernacular structures and other structures such as homes, lime kilns, farmsteads, smithies, farmsteads, etc. These were identified through historic OS mapping, aerial photography, and field inspections. The EIAR lists 62 cultural heritage assets in total, and Table 10-5 states that none have statutory protection.
- 16.9.18. The EIAR provides details on placenames and townlands within the receiving environment of the proposed development, detailing their origin, derivation and possible meaning. Examples include "Carrownagowan," derived from the Irish Ceathrú na nGaibhne (meaning The smith's Quarterland), and "Kilbane," derived from "An Choill Bhán" meaning "White Wood".
- 16.9.19. The EIAR details areas of archaeological potential along the route. The report notes the Protected Structure Kilbane Bridge (BH 1), which is located along the route. The route also passes through or adjacent to Zones of Notification (ZON) associated with archaeological sites, including enclosures and ringforts (ref no. AH 03, AH 07, AH 10, AH 11, AH 12) and a graveyard with church remains (AH 13 and AH 14) near the townland of Ballybrack.
- 16.9.20. The EIAR states how the proposed development extends along existing roads. The report notes how the route passes through the demesne associated with Ballyquin

House (DL 01) and immediately west of the demesne landscape associated with Roo Cottage/ Trough Castle (DL 02), which is characterised by a stone wall that separates the demesne from the road.

## 16.9.21.Potential Effects

- 16.9.22. During the construction phase, the EIAR states that the proposed development would not directly impact recorded or unrecorded sites of archaeological significance. However, as the proposed development passes through the Zones of Notification associated with monuments AH03, AH07, AH10, AH11, AH12, AH13, and AH14, there is potential for there to be archaeological features to be under the roadway, which could result in direct, negative, and permanent impacts. The EIAR states that in the absence of mitigation, potential impacts could range from moderate negative to profound negative, depending on the nature, extent, and significance of any remains that may be present.
- 16.9.23. The report states that where the proposal crosses undeveloped land, there may be undetected archaeological features. Ground disturbance of these sites could result in direct, negative, and permanent impacts on the present archaeological remains.
- 16.9.24. Regarding the only Protected Structure along the route, Kilbane Bridge (BH 1), the report states that there would be no impacts as the cable would be laid beneath the adjacent stream bed at a minimum depth of 1.5m.
- 16.9.25. During the operational phase, the EIAR states that the proposed development would not impact archaeological, architectural, or cultural heritage resources. Maintenance and repair work would be temporary and of short duration, where excavations and backfilling occur. The EIAR states that in a "do-nothing" scenario, there would be no impacts on archaeological, architectural and cultural heritage resources.

## 16.9.26. Cumulative Impacts

16.9.27. Proposed, permitted and existing developments within the study area are detailed in Appendix 1-5. The EIAR states that there would be no cumulative impacts on identified archaeological, architectural and cultural heritage resources. This is based on the absence of operational impacts and the proposed mitigation measures,

which would be preserved by record, or in situ, any archaeological remains encountered during the construction of the Proposed Development.

16.9.28. The EIAR notes the potential of the proposed development to interact with the proposed Fahy Beg Wind Farm Grid Connection at two locations and with the Drummin Solar Farm Grid Connection at one location within Ardnacrusha. However, the report states that the Local Authority would control interaction through the Road Opening Licence process and by the EirGrid Station Manager at Ardnacrusha. Solutions might include road closures and traffic diversions or staggered construction periods.

## 16.9.29. **Mitigation Measures**

- 16.9.30. The EIAR details the following mitigation measures to prevent impacts on the cultural heritage resources from the proposed development:
  - All excavations within the Zones of Notification (ZONs) for monuments AH03, AH07, AH10, AH11, AH12, AH13, and AH14 would be monitored by a suitably qualified archaeologist.
  - Monitoring would also apply to excavations in previously undisturbed greenfields.
  - The Department of Housing, Local Government and Heritage would be notified immediately of any features of archaeological potential be discovered during excavation.
- 16.9.31. No mitigation measures are proposed for the operational phase.

#### 16.9.32. **Assessment**

16.9.33. Having examined Chapter 10 of the EIAR, all associated documentation and the submissions received, it is my view that the proposed development would not have significant adverse impacts on cultural heritage sites, subject to the implementation of the proposed mitigation measures. I consider that direct impacts on known cultural heritage sites would be minimal by reason that the proposed grid connection cable would be laid for the most part along existing roadways, thereby avoiding direct impacts on adjacent heritage sites. While there is the potential for indirect impacts on subsurface archaeological features within Zones of Notification (ZON), I consider the proposed archaeological monitoring by a suitably qualified archaeologist during

excavations within the ZONs would mitigate any potential interference effectively, ensuring that features are identified, protected and preserved in situ or recorded.

- 16.9.34. I am satisfied that the proposed mitigation measures, as detailed above, would effectively prevent impacts to Protected Structures, such as using HDD directional drilling in the watercourse to avoid and protect the integrity of the Protect Structure, Kilbane Bridge.
- 16.9.35. Regarding cumulative impacts, I have analysed the interaction of the proposed development with other permitted or proposed projects in the vicinity, including the Fahy Beg Wind Farm Grid Connection and Drummin Solar Farm Grid Connection. I am satisfied that the measures outlined in the EIAR, including the scheduling and phasing of works and traffic management by the Local Authority and the Ardnacrusha EirGrid Station Manager, would control cumulative impacts effectively, thereby preventing significant impacts on cultural heritage sites.
- 16.9.36. Regarding the third-party concerns, I consider that the proposed monitoring by a suitably qualified archaeologist and the immediate reporting to the Department of Housing, Local Government, and Heritage if archaeological remains are discovered during the works sufficiently address these concerns. This reporting would require further mitigation measures, including the preservation in situ or by record, subject to approval by the Department.

## 16.9.37. **Conclusion**

16.9.38. I conclude that the proposed development, subject to the full implementation of the proposed mitigation measures, would not have significant adverse effects on cultural heritage features in the project's zone of influence.

## 16.10. Air Quality and Climate

### 16.10.1. **Issues Raised**

16.10.2. Third-party submissions contend that the EIAR does not adequately address CO<sub>2</sub> emissions associated with the proposed development, stating that the claims of offsetting emissions are misleading. Concerns are raised over using SF6 gas in turbine switchgear in the permitted wind farm served by the proposed development, which is known for its high global warming potential. Third-party submissions also raise concerns regarding emissions from construction traffic, dust emissions, and waste materials disposal during the construction phase.

- 16.10.3. The Local Authority and Prescribed Bodies did not raise concerns regarding Air Quality and Climate.
- 16.10.4. In response to the third-party concerns, the applicant states that dust and emissions during construction would be temporary and minor. The applicant submits that the proposed development would, in the long term, contribute positively to air quality by enabling the transmission of renewable energy.

#### 16.10.5. **Methodology**

- 16.10.6. The methodology assesses both existing air quality and the nature, scale and duration of construction and maintenance works. The local climate was characterised based on 30-year averages measured at the nearest representative weather observatory.
- 16.10.7. As part of the desk study, the EIAR identifies potential sensitive receptors, taking into consideration the project description, construction methodology, and the existing baseline environment to assess potential impacts on air quality. The assessment follows industry guidance documents, including the Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes (TII, 2011) and Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2014).
- 16.10.8. The study area includes all receptors within 50m of the proposed development. Assessment criteria are set for Air Quality and Climate. For Air Quality, the project is classified as a "minor construction site". The report states that with standard mitigation measures in pace, potential significant dust effects would be limited to 25 metres for soiling and 10 metres for PM<sub>10</sub> emissions, as per Table 11-1. The report states pollutants from machinery, including CO<sub>2</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and PM<sub>10</sub>, would be minor and temporary, remaining below limit values set out in the CAFÉ Directive 2008/50/EC.
- 16.10.9. Regarding climate, the EIAR describes the developments alignment with Ireland's Climate Action and Low Carbon Development (Amendment) Act 2021 and

the Climate Action Plan 2023. It details national targets, including achieving a 51% reduction in GHG emissions by 2030 and net zero emissions by 2050, and states how the proposal aligns with these objectives. The report also details Ireland's 5-year carbon budgets and sectoral emissions ceilings as context for the proposed development.

### 16.10.10. Baseline Conditions

- 16.10.11. The EIAR describes the baseline environment for air quality conditions in the region as 'Good' based on data from the nearest representative air quality station in Limerick. The Grid Connection study is located within the EPA's Air Quality Monitoring Zone D, where background concentrations of air pollutants (NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>) are found to be substantially below EU limit values.
- 16.10.12. Regarding Local Climate conditions, the EIAR details climate data sourced from the nearest synoptic station at Shannon Airport over the period 1981-2010, which identifies mean monthly temperatures ranging from 6°C to 16°C, an annual mean temperature of 10.7°C, and a yearly mean rainfall 978 mm per year. The EIAR provides details on global climate change trends, sourcing data from the World Meteorological Organisation (2022), including details on rising global temperatures, rising sea levels, and extreme weather events. The report also provides EPA data showing Ireland's decreasing GHG emissions by 1.9% in 2022, Ireland's performance to date and the challenging reductions required (12.4%) under Ireland's Carbon Budget for 2021-2025.

#### 16.10.13. **Potential Effects**

- 16.10.14. During the Construction phase, the EIAR states that there would be emissions from vehicle exhausts containing carbon dioxide (CO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NOx), carbon monoxide (CO), and particulate matter (PM<sub>10</sub>). However, the report states that the exhaust emissions are unlikely to have adverse impacts on local air quality and would not significantly impact local, regional or national Air Quality Standards given the scale of machinery involved, the high dispersion levels, and the limited extent and duration of the works.
- 16.10.15. The report states that dust would be generated from work activities but prevented and controlled by standard mitigation measures. Effects from dust are

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classified as having temporary, negative and imperceptible effects on nearby sensitive receptors during the construction phase.

- 16.10.16. Regarding climate change, the EIAR states that machinery would generate GHG emissions during construction. However, these emissions would be a small and negligible fraction of Ireland's total annual emissions (60.76 Mt CO<sub>2</sub>eq in 2022). Effects on climate are deemed to be temporary, negligible-negative and imperceptible.
- 16.10.17. During the operation phase, the EIAR states that there would be no impacts associated with dust or vehicle emissions. The report states that the proposal would have a positive effect on air quality during its operation phase as it would enable the transmission of renewable energy from the wind farm to the national grid, thereby reducing emissions. In the event of a Do-Nothing scenario, the report states that the air and climate environment along the route is unlikely to change significantly.

#### 16.10.18. **Cumulative Effects**

- 16.10.19. The EIAR describes projects which have the potential to interact with the Proposed Development, including the Carrownagowan Wind Farm (permitted but not constructed) and its associated forestry operations, the Fahey Beg Wind Farm and Drummin Solar Farm grid connection. During the construction phase, the report estimates that construction works would take c. 6-8 months and overlap with the permitted Carrownagowan Wind Farm works. However, the report states that the potential for significant cumulative effects would be very low by reason of the geographical distance between construction work areas. The report identifies how forestry operations would continue during the construction phase. However, they would be distant from the grid works area, and cumulative effects would be avoided.
- 16.10.20. The report acknowledges the potential to interact with the proposed Fahey Beg Wind Farm Development Grid Connection in two locations and the Drummin Solar Farm Grid Connection in one location within Ardnacrusha. However, the report states that cumulative effects would be avoided when the development would have to secure a road opening licence from the local authority, where timelines would be agreed and connections sequenced. Interactions within the Ardnacrusha substation would be controlled by the Ardnacrusha EirGrid Station Manager, who would implement traffic management measures, thereby avoiding potential cumulative impacts.

- 16.10.21. During the operation phase, the EIAR states the proposed development would operate cumulatively with the permitted Carrownagowan Windfarm Development. However, there would be no significant emissions from the project, and thereby, no cumulative impact on air quality or climate would occur.
- 16.10.22. The report notes how the proposal aligns with the national targets in Ireland's Climate Action Plan 2023 (currently 2024), including achieving the target of increasing renewable electricity to 80% by 2030. The proposed development would enable the transmission of c. 224,694 MWh per year of renewable electricity to the national grid from the permitted Carrownagowan wind farm.

### 16.10.23. **Mitigation Measures**

- 16.10.24. During the construction phase, the EIAR proposes a range of mitigation measures to minimise dust emissions, following best practice measures. These include:
  - The use of water as a dust suppressant during extended dry periods.
  - Carrying out regular inspections and cleaning of public roads near the site.
  - Covering all loads entering and leaving the site if dust becomes a nuisance.
  - Control of vehicle speeds within the construction area.
  - Installation of wheel wash facilities at the site entrance to prevent the transfer of dust and debris onto public roads.
  - Conduct daily site inspections to assess the effectiveness of these dust control measures.
  - Regular maintenance and inspection of vehicles, plant and equipment to ensure efficiency.
  - Implementation of the Traffic Management Plan (refer to Appendix 2-3) to minimise congestion.
  - Ensuring vehicles and machinery are switched off when not in use
- 16.10.25. For the operation phase, the EIAR states that no mitigation measures are required.

### 16.10.26. **Risk of Major Accidents and Disasters**

16.10.27. The EIAR states that the risk of the proposed development causing a major accident or disaster/or being vulnerable to a major accident or disaster is low. Extreme weather events would not affect the proposed development as it will be underground. Flooding is considered unlikely as the site is not in an area prone to flooding.

### 16.10.28. **Residual Impacts**

16.10.29. The report states that there would be no significant residual effects from the construction or operational phases of the project. Once complete, the cable would be buried underground, and there would be no emissions once in operation. Emission effects from maintenance activities would be minor, temporary, and have no significant impact.

#### 16.10.30. **Assessment**

- 16.10.31. Having examined Chapter 11 of the EIAR and all associated documentation and submissions received, it is my view that the proposed development would not have significant adverse effects on air quality and climate.
- 16.10.32. The construction phase would generate temporary emissions from construction vehicles and machinery, including CO<sub>2</sub>, SO<sub>2</sub>, NOx, and PM<sub>10</sub>. However, considering the nature, scale, and extent of the proposed site and its context, I consider that the emissions would be temporary and not significant. Any emissions would be dispersed quickly into the open air in what is a mostly rural area. While exact figures for pollutant levels have not been provided, and in the absence of evidence to the contrary, I do not consider the emission levels from the construction activities of the proposed grid connection cable would be excessive given the small scale and temporary nature of the works.
- 16.10.33. Regarding dust, the EIAR proposes standard dust control measures, including water for the suppression of dust, wheel washing of vehicles exiting the site, and regular cleaning of roads. I consider these mitigation measures, as detailed further above, would mitigate dust impacts on nearby sensitive receptors along the grid route.

- 16.10.34. There would be no emissions during the operational phase as the grid connection cable would be underground. Repair and maintenance activities would generate negligible emissions.
- 16.10.35. Regarding effects on climate, I consider that GHG emissions during construction would be temporary, limited and minimal. I accept as logical the EIAR's statement that the proposed development would contribute to achieving Ireland's renewable energy targets and contribute to and consistent with the 2024 Climate Action Plan's goal of increasing renewable energy to 80% by 2030.
- 16.10.36. Regarding cumulative effects with other relevant projects in the area, including the Carrownagowan Wind Farm and associated forestry operations, and the Fahey Beg Wind Farm and Drummin Solar Farm grid connection, I consider given the geographical distance between these projects, and the phased scheduling, monitoring and control of road opening licences along the grid route by the Local Authority and by the EirGrid manager at Ardnacrusha, I do not consider there would be significant adverse cumulative impacts on air quality and climate. There would be no significant adverse residual effects as the grid connection cable would be underground, and maintenance-related emissions would be temporary, minor, and insignificant.

#### 16.10.37. **Conclusion**

16.10.38. I conclude that subject to the full implementation of the proposed mitigation measures, the proposed development would not result in significant adverse effects on air quality or climate. Furthermore, the proposed development would enable the transmission of c. 224,694 MWh per year of renewable electricity to the national grid from the permitted Carrownagowan wind farm. This would contribute to Ireland's targets under the 2024 Climate Action Plan's goal of increasing renewable energy to 80% by 2030.

## 16.11. Material Assets

## 16.11.1.Issues Raised

16.11.2. Third-party submissions raise concerns about the impact of the proposed development on local rural roads, particularly single-lane roads, which are unsuitable for heavy construction traffic. Concerns are raised about impacts to protected sod

stone ditches, hedgerows and Kilbane bridge along the route and how it would disrupt farming activities along narrow rural roads and restrict access for locals.

- 16.11.3. The Transport Infrastructure Ireland (TII) submission raises concerns about how abnormal load deliveries during construction would affect the national road network. The submission notes how details are not provided of haul routes or if abnormal loads would be used. TII recommends that in the event of abnormal loads, the applicant should obtain relevant licences, consult with relevant PPPs and MMaRC Companies, and adhere to national road standards. TII specifies that the applicant must repair any damage to national road pavements in accordance with TII standards, and this must be agreed upon with TII prior to the commencement of development. The Department of Housing, Local Government, and Heritage raise no specific issues regarding material assets.
- 16.11.4. The submission from Clare County Council states the requirement of a €500,000 bond to protect the road network, that a Council Clerk of Works be assigned to oversee the project, and that a Community Relations Officer be appointed to liaise with the local community. The report states that the development should comply with road reinstatement standards, including the reinstatement of junctions and lanes and reinforcing roads in marshy or peat areas. The Council states that there should be unrestricted access along the East Clare Way and recommends footpath enhancements in Ardnacrusha as a community gain. The report states that surplus soil and spoil should be exported to licensed facilities.
- 16.11.5. The applicant responds to the submissions stating that no abnormal loads will be used and that construction traffic will adhere to local authority requirements, including obtaining road licenses and coordination with Gardaí. The applicant states that a Community Liaison Officer would maintain communication with the local community to prevent disruption. The applicant states that the proposal would comply with Council guidelines regarding road reinstatement and erosion control, especially in Glenomra Wood SAC. Regarding groundwater and local wells, the applicant states that the proposed mitigation measures in the EIAR would prevent contamination risks. The applicant states that lead would not be used in cabling and that all materials would meet EirGrid's standards.
- 16.11.6. **Methodology**

- 16.11.7. The EIAR states that the methodology for assessing material assets included desk-based research of published information and site visits in November 2022 to gather information on the local receiving environment. Data was sourced from Gas Networks Ireland, ESB, EIR, and existing road maps. The methodology follows guidelines and best practices, including EPA's EIAR Guidelines (2022), TII Guidelines on Traffic and Transport, and the Clare County Development Plan 2017-2023.
- 16.11.8. The study area is defined by the construction footprint of the site boundary for built services and traffic. The study area for the waste impact assessment includes suitable licenced waste facilities that would accept waste from the development. The scope of assessment includes built services (electricity, telecommunications, gas, water supply and sewage infrastructure) and roads and traffic during the construction and operation phases. The assessment criteria significance of each effect is based on criteria from the EPA's EIAR Guidelines (2022).

### 16.11.9. Baseline Conditions

- 16.11.10. The EIAR details the sensitivity of the baseline environment by identifying the ability of the receptor to respond to potential effects, specifically existing built services network (i.e. electricity, telecommunications, gas, water supply and sewerage networks), transport network and waste management infrastructure capacity within the study area. The assessment adheres to the EPA's Guidelines on EIAR (2022) as well as professional judgement, given that descriptors for sensitivity are not provided within Irish guidance.
- 16.11.11. Regarding transport infrastructure, the EIAR categorises transport network sensitivities as high for motorways/national roads, medium for regional roads, and low for local roads. For built services infrastructure/networks, the EIAR describes high sensitivity for the 220 kV electricity network and high-pressure transmission gas pipelines, medium sensitivity for 38 kV and 110 kV electricity networks and mediumpressure distribution gas networks, and low sensitivity for low/medium voltage electricity, telecommunications, water, and drainage networks.
- 16.11.12. For waste impacts, the EIAR states that the typical approach of identifying receptors and determining their sensitivity does not apply for various reasons, including the legal duty of care of the waste producers to manage their waste in

accordance with Waste Management Regulations and the requirement to transfer to a licenced facility or apply for an exemption.

- 16.11.13. Regarding transport infrastructure, the report states that the proposed grid connection extends for c. 25 km, starting in the wind farm site for an initial 4.2km, then along c. 0.89 km of existing wind farm access roads and traversing c. 2.3 km of third-party land before travelling c. 16.96 km along public roads before finishing with crossing c. 0.52km of third-party lands leading to the substation in Ardnacrushna. The EIAR details the townlands through which the grid connection cable would travel through. Public road and track widths would range from 3.0 to 7.3 metres.
- 16.11.14. The EIAR provides data on road traffic volumes recorded on the R352 in November 2018 as part of the EIAR for the permitted Carrownagowan Wind Farm, with adjusted opening year traffic volumes for 2024 in Table 12-6. The EIAR estimates that the R352 and R465 would operate within their capacity, with AADT Volume/Capacity Ratios of 76% and 77%. The L8821-0 local road is estimated to operate at a 29% Volume/Capacity Ratio based on TII Rural Road Link Design DN-GEO-03031 and conservative central growth scenarios.
- 16.11.15. The EIAR provides details on grid capacity and electrical infrastructure, detailing EirGrid's role and its Transmission Development Plan 2018-2027, which plans reinforcement projects of the Transmission Network in Clare, including the redevelopment of the 110 kV Station at Ardnacrusha, to which the proposed development would connect. Details are provided on how the 110kV substation has recently been upgraded to a new 110kV GIS busbar, and there are currently 4 no. 110kV feeders, which would allow enough MW capacity for the proposed 110kV generation connection.
- 16.11.16. The EIAR provides details and maps of ESB infrastructure in the southern section of the study area, including 38kV and higher-voltage overhead lines,10KV/20KV medium-voltage overhead lines, 400V/230V low-voltage overhead lines, and 10KV/20/KV/400V/230V underground cable routes. Details and maps of the study area's gas distribution network, water supply network, drainage infrastructure, and telecommunications are also provided.

16.11.17. Waste facilities in the study area include Clare Waste & Recycling at Tuamgraney, Inagh Central Waste Management Facility in Ballyduff Beg, Inagh and Enva, located at Smithstown Industrial Estate in Shannon, Co. Clare.

### 16.11.18. **Potential Effects**

- 16.11.19. During the construction phase (6-8 months), the EIAR states that there would be an increase in local traffic generated by up to 25 personnel vehicles commuting to and from the site each. The report states that site personnel would travel to the site before 7.30 a.m. and depart from the site from 8.30 p.m. on weekdays, outside the peak traffic hours. Construction hours would be between 8.00 a.m. and 8.00 p.m. on weekdays and 6.00 p.m. on Saturdays (if required, subject to planning consent). The report states that the proposed development would generate a total of 39 vehicles, including trucks, vans, construction vehicles and employee vehicles, creating a total of 31 vehicle movements per day. The report states that the additional traffic volumes during the construction phase would have a negative, temporary, and negligible effect on existing traffic infrastructure with low to medium sensitivity. The effect on the existing road infrastructure during construction works is deemed to be not significant.
- 16.11.20. Regarding traffic management measures, the EIAR states that 100-200 metres single-lane closures would be required on sections of the R466, R471, and L-3056-0. These would be controlled by stop-go systems, priority yield systems or temporary traffic lights, subject to agreement with the Council. Full road closures would include the R471 (for c. 2.2 km) and several local roads, including the L-30302-0, L-3044-0 and L-7004-17. The report states that diversions of various distances would be implemented to provide an alternative route for road closures during construction. The report states that the additional traffic during the construction phase would likely result in a negative, temporary, and low effect on existing roads with low medium sensitivity and that the impact on the existing road infrastructure during construction works will likely be insignificant.
- 16.11.21. The EIAR states that heavy vehicle traffic volumes generated by the construction of the proposed development could damage existing road pavements on public roads. The report notes how road pavements would be regularly monitored and reinstated under the requirements of Clare County Council if damaged. Prior to the commencement of development, a pre-construction survey will be carried out,

photographing/videoing and noting any existing damage or defects to structures or road surfaces. The report states that this additional heavy traffic volume would likely result in a negative, temporary, and negligible effect on the existing road pavements on public roads with low and medium sensitivity, and the significance of the impact would be imperceptible.

- 16.11.22. Regarding built services infrastructure, the EIAR states that laying cables under and along local road networks would require excavations close to existing underground services such as water mains, gas networks, telecommunications, or existing cables. Prior to construction, detailed surveys would be undertaken to locate services. If encountered, the relevant service provider would be consulted to determine the requirement for specific excavation methods and to schedule a suitable time to carry out work. Likely impacts on services are deemed to be negative, brief and low on the existing built services networks of low – medium sensitivity, and the significance of the effect on the built services network during construction works would not be significant. The report states that onsite generators would supply electricity during construction; thereby, there would be no additional power demands on the existing network.
- 16.11.23. Regarding waste management, the EIAR calculates that there would be c. 22,204 m<sup>3</sup> of material excavated during the construction phase and that all excavated soils and sub-soils within the public road network would be disposed of to a licenced facility, including Clare Waste & Recycling at Tuamgraney, Inagh Central Waste Management Facility in Ballyduff Beg, Inagh and Enva, at Smithstown Industrial Estate in Shannon. The report states that, given the volumes of waste materials generated, the generation of waste from the project would likely result in a neutral, temporary and negligible effect on waste management infrastructure in the region, with an imperceptible effect.
- 16.11.24. During the operation phase, the EIAR states that maintenance would be periodic, generating a low volume of maintenance and repair vehicles, including occasional heavy vehicles. Their effect is deemed to be neutral, long-term, negligible and of imperceptible significance. There would be no impacts on built services or waste management during the operation phase. The report states that in a 'do-nothing' scenario, there would be no change to the existing material assets other than ongoing maintenance of existing built services and road networks.

### 16.11.25. **Cumulative Impacts**

- 16.11.26. Regarding transport infrastructure, the EIAR states that the proposed development has the potential to interact with the proposed Fahey Beg Wind Farm Development Grid Connection in two locations and the Drummin Solar Farm Grid Connection in one location within Ardnacrusha. The EIAR outlines how the Local Authority would control and monitor cumulative effects through road opening licences, where timelines would be agreed upon, and connections sequenced. When necessary, road closures and traffic diversions would be implemented. Interactions at the Ardnacrusha substation would be controlled by the Ardnacrusha EirGrid Station Manager, who would implement traffic management measures to prevent potential cumulative impacts. The report states that there would be no significant cumulative effects in relation to traffic and transport during the operation phase.
- 16.11.27. Regarding built services infrastructure, the EIAR states that there are no planning applications that will significantly increase demand for built services supply networks during the construction phase. As such, it is deemed that there would be no cumulative effects on existing built service networks with other surrounding permitted, planned and existing developments during the construction phase. The report states that during the operation phase, the proposed development, combined with the permitted Carrownagowan Wind Farm, would complement the national grid development strategy and help contribute to the region's expected overall wind generation.
- 16.11.28. Regarding waste management, the report states that cumulative waste generation effects on exiting waste management infrastructure in the region, with other developments, including the permitted Carrownagowan Wind Farm, would not be significant.

## 16.11.29. **Mitigation Measures**

- 16.11.30. Proposed mitigation measures during the construction include the following:
  - All signage relating to construction traffic routes for construction traffic will be agreed upon with the Local Authority.
  - Excavated materials deliveries would avoid peak traffic hours
  - Provision of adequate parking for employees on site.

- Road sweeping to prevent mud deposits on public roads.
- 16.11.31. Proposed mitigation measures for built services infrastructure:
  - All utility providers, i.e. ESB Networks, EirGrid and Gas Networks Ireland, would be consulted, and drawings for all existing underground services along the route would be obtained.
  - As per ESB Networks requirements, a minimum clearance of 300mm from the bottom of the ducting to the top of any underground service would be maintained. If this cannot be achieved, the ducting will pass below the service, with a minimum clearance maintained from the top of the ducting to the bottom of the service.
  - All excavations will be kept within the public roadway boundaries.
  - Construction works will comply with relevant guidance documents from Gas Networks Ireland, ESB and the HSA.
  - The contractor would ensure no significant interruptions to existing services and maintain the integrity of all services and built services.
- 16.11.32. Regarding waste management, the report states that all waste would be managed in accordance with relevant EU Waste Directive requirements and section 21A of the Waste Management Act 1996. All waste will be removed from the site by authorised waste contractors and transported to an authorised location.

## 16.11.33.Residual Effects

16.11.34. The EIAR states that residual effects on transport infrastructure in the area would remain imperceptible and not significant and that no mitigation measures are required. For built services infrastructure, the EIAR states that the residual effect on the existing built services infrastructure would not be significant, and no mitigation measures are necessary to reduce the impact of the suspension of services during the construction phase. Regarding waste management, the region would remain imperceptible, and no mitigation is necessary to reduce the impact of the generation of waste during the construction phase. It is noted that there would be no residual effects during the operational phase.

### 16.11.35. **Risk of Major Accidents and Disasters**

16.11.36. The EIAR states that the risk of the proposed development causing a major accident or disaster/or being vulnerable to a major accident of disaster is low. Poor driving conditions caused by adverse weather could result in a road traffic accident. However, construction activities during unsafe conditions would be suspended, as detailed in the CEMP (Appendix 2-2). The report states that the implementation of the CEMP would reduce risks to an acceptable level during the construction phase.

### 16.11.37. **Assessment**

- 16.11.38. Having examined Chapter 12 of the EIAR and all associated documentation and submissions received, it is my view that the proposed development would not adversely impact material assets, subject to the implementation of the proposed mitigation measures. The direct impacts of the proposed development would relate to road and utility infrastructure. The EIAR establishes that the proposed development would generate an estimated temporary increase of 31 construction vehicles per day. However, I am satisfied that the existing road network has the capacity for the estimated increase in construction-related traffic. Road closures would be implemented on specific sections of R471 (for c. 2.2 km) and several local roads, including the L-30302-0, L-3044-0 and L-7004-17. Furthermore, the project would result in temporary road closures and diversions. However, I consider that these impacts would be temporary and effectively controlled by the Local Authority through road opening licences, agreement with TII where required, and general oversight by An Garda Síochána. Areas of excavation work would be restricted to 100-200m stretches of roadway at any one time. As detailed in the EIAR, traffic management measures would include the closure of single lanes for distances of 100-200 meters and the requirement for stop-go systems or temporary traffic lights, all of which would require agreement with the local authority prior to the commencement of development. As detailed in the CEMP, a Traffic Management Plan, subject to the agreement of the Roads Authority, would be implemented in the event of a grant of permission, ensuring road and traffic safety.
- 16.11.39. The delivery of materials in and out of the site would occur outside of peak traffic hours, particularly during school terms, and employee parking would contained on-site, preventing offsite roadside parking. I am satisfied that the CEMP sets out

adequate measures to protect pavement damage from construction traffic. Prior to the commencement of development, a pre-construction survey would be carried out to photograph and document the condition of road surfaces, with surveys to be submitted to the local authority. To ensure the protection of roads, Clare County Council require a bond of €500,000 and the appointment of a Council Clerk of Works to oversee the project. The CEMP sets out specific mitigation measures, including regular monitoring of road surfaces for cleanliness and cleaning if required and ensuring that any damage is repaired to the Council's road reinstatement standards.

- 16.11.40. Regarding potential damage to road pavements, I am satisfied that the proposed pre-construction surveys would identify existing damage to road surfaces and structures. These would be submitted to the Local Authority prior to the commencement of development. The Council's requirement for a development bond would ensure the reinstatement of damages caused to Council standards. The appointment of a Council Clerk of Works would provide oversight of the project, and the appointment of a Construction Manager for the project would ensure mitigation measures are applied, as detailed in the CEMP.
- 16.11.41. Regarding built service infrastructure, I consider the potential for disruption and interference with existing underground services and utilities during excavations to be adequately mitigated in the EIAR. Mitigation measures include liaising with all utility providers to confirm the location of existing services along the grid route, undertaking surveys and maintaining minimum clearances required in accordance with Codes of Practice or alternatives where needed, e.g. crossing in flat formation or horizontal directional drilling. All excavations would be kept within road boundaries.
- 16.11.42. In consideration of the above, I am satisfied that any likely direct effects are adequately mitigated and would not have adverse impacts on service utilities.
- 16.11.43. Regarding concerns raised in submissions received, I do not consider the proposed development would have significant adverse impacts on local access or agricultural activities. The CEMP details that a Client Liaison Officer would be appointed to undertake consultation with the local community two months in advance of construction works to maintain communication and minimise disturbance. The implementation of a Traffic Management Plan would mitigate single and full road closures and diversions, subject to the agreement of the Local Authority. Any restricted

access to the East Clare Way would be temporary and minor. The provision of a development bond to the Local Authority would ensure the protection of material assets.

16.11.44. Regarding cumulative effects with relevant developments in the area, including the Fahey Beg Wind Farm and Drummin Solar Farm grid connections, I am satisfied that any cumulative effects would be mitigated through Local Authority control of road opening license, the EirGrid Manager at Ardnacrusha station and the implementation of a traffic management plan. The applicant confirms that abnormal loads would not be used during construction, which addresses Transport Infrastructure Ireland's concerns. The submission of a Traffic Management Plan to the road authority for agreement prior to commencement would address any outstanding issues.

### 16.11.45. **Conclusion**

16.11.46. I conclude that subject to the implementation of the proposed mitigation measures, the proposed development would not result in significant adverse effects on material assets.

#### 16.12. Landscape and Visual Impact

### 16.12.1. **Issues Raised**

16.12.2. The submissions received from Third Parties and Prescribed Bodies do not raise any specific concerns regarding the impact of the proposed development on landscape and visual amenities.

## 16.12.3.Methodology

16.12.4. The EIAR states that the methodology used is in accordance with the methodology in the Guidelines for Landscape and Visual Impact Assessment (GLVIA, 2013). Key Policy and Guidance documents used in the methodology are referenced. Baseline data included a desktop study and a site visit/field study. The desktop study included a review of the County Development Plan, OS maps and NIAH records. The site visit was carried out in August 2023. Assessment of Effects categorises landscape sensitivity from Very High to Negligible based on landscape values and susceptibility. It also includes an evaluation of the Magnitude of Landscape Change, categorising

the landscape sensitivity of the receiving environment from Very High sensitivity to Negligible. The sensitivity of Visual Receptors is categorised from Very High to Negligible. The assessment also categorises the Magnitude of Visual Change from Very High to Low.

16.12.5. The Study area is defined as c.100 metres to either side of the proposed cable. The rationale for the study area is that the cable will be laid mostly along roads and tracks, with only short sections going through grassland (c 1.50 km) and shorter sections of coniferous forestry within the permitted wind farm site.

## 16.12.6. Baseline Conditions

- 16.12.7. The EIAR examines the Clare County Development Plan 2023-2029 and the Clare Landscape Character Assessment and identifies that the proposed development is located in LCA 8 Slieve Bernagh Uplands and LCA 9 River Shannon Farmlands. Rolling hills and scattered settlements characterise the LCA 8 Slieve Bernagh Uplands, and well-enclosed roadsides, mature trees and hedgerows characterise the LCA 9 River Shannon Farmlands.
- 16.12.8. The EIAR describes the proposed development as comprising four sections, as follows:
  - Section 1: UGC from Ardnacrusha 110kV substation to R-471 Road (Chainage 0 m to 5000 m),
  - Section 2: UGC within R-471 and L-3046 Carriageway (Chainage 5000 m to 11850 m)
  - Section 3: UGC within R466 & L-3022-8 roadways, through Kilbane Village (Chainage 11850 m to 17500m)
  - Section 4: UGC within Consenting 3rd party folios to Windfarm (Chainage 17500 m to 25000 m)
- 16.12.9. The EIAR describes the topography as ranging between 10 and 20m OD near the Ardnacrusha power station to 240-250 metres in Section 4 near the wind farm. The EIAR describes the land cover across the route of the proposed grid connection, which includes the hard-surfaced area of roads and roadside boundaries of walls, trees, hedges and grass and land cover of adjacent lands ranging from urban to agricultural

and forestry. The EIAR provides details of 3 no. Protected Structures within the study area. These include Glenomra House (RPS No. 427), Church of the Mother of God (RPS No. 102), and Kilbane Bridge (RPS No. 188). A section of the East Clare Way runs through the study area, where it begins in Kilbane Village (Section 3) and continues west along the local road L-3022-8 until the junction at Cloongaheen West, where it continues north within the study area, as far as the junction with another local track, as detailed on Figure 13-4.

## 16.12.10. **Potential Effects**

- 16.12.11. The EIAR states that the sensitivity of the majority of the landscape is considered Low. The report identifies several areas of higher sensitivity (Medium), including Roo Cottage entrance walls and gates and mature trees (in Section 1), Trough Graveyard walls, mature trees near Glenomra Wood Stream, Kilbane bridge and stream and the East Clare Way east, west and north of Kilbane village.
- 16.12.12. The report states that construction works would last 6-8 months during the construction phase. The majority of cables would be laid within road corridors. Minor vegetation clearance and trimming may occur at road edges and potentially at Bridge 3 over the Glemomra Wood Stream. The report states that the cable would be laid by Directional Drilling across all but one watercourse, Bridge 4 over the Broadford River along the L- (L-3022-8). As such, the report states that there would be no effects on bridges or watercourses during the construction stage, including the Kilbane Bridge, which is in one of the more sensitive areas identified, as well as Bridge 4. The crossing for Bridge 4 would be carried out by installing the UGC ducting within the bridge deck. Construction areas would be confined to 100-200m stretches of roadway at any one time. The EIAR assess the magnitude of visual change as Negligible to Low, resulting in Temporary to Short-Term, Not Significant Visual Effects.
- 16.12.13. Regarding visual effects during the construction phase, the EIAR states that the Magnitude of Visual Change and Significance of Effect would be Negligible to Low. Visual effects would only be evident during the construction stage. Disturbed areas would be reinstated or revegetated.

#### 16.12.14. **Cumulative Impacts**

- 16.12.15. The EIAR states that the proposed development has the potential to interact with the proposed Fahy Beg wind farm development grid connection in two locations and the Drummin Solar Farm Grid Connection in one location within Ardnacrusha. The report notes how each project would have to apply for a road opening licence, which would require engagement with and control by the Local Authority to avoid disruption. The extent of the overlay between the project and other grid connections would comprise c. 250m of the Drummin grid connection and c. 810m of the Fahy Beg grid connection within the ESB site at Ardnacrusha. Outside of the ESB facility, the only interaction would be c. 1800m along the R471 and the L-3046, where the Fahy Beg grid connection is proposed.
- 16.12.16. The report states that if the proposed development proceeds at the same time as the section of the other projects at Ardnacrusha, it would result in a non-significant, temporary effect on the landscape. Visual receptors within the existing ESB power station have low sensitivity, and visual effects are deemed non-significant and temporary. The EIAR states that should the proposed development proceed at the same time as the section of the other projects along the R471 and L-3046, its effect on the landscape would not be significant and temporary.
- 16.12.17. The EIAR states that the proposed development's potential construction phase cumulative landscape and visual effects in conjunction with the permitted wind farm development would not occur. The report states that construction related to the wind farm is of a scale where additional construction of the proposed development would not be perceptible. The report further states that the proposed development's operational phase landscape and visual effects in conjunction with the wind farm would not occur.

## 16.12.18. Mitigation Measures

- 16.12.19. The EIAR notes that most of the proposed development would be underground within existing road and track corridors, so this minimises impact. Notwithstanding this, several measures are proposed, as follows:
  - Avoid any damage to vegetation and walls, especially those of built or cultural heritage value.
- Obtain advice from a qualified Arboriculturist for the construction team during construction.
- Re-vegetation of disturbed areas
- Protect the degraded upland blanket bog in the northern section with stakes and fencing.
- 16.12.20. The EIAR states that no mitigation measures are required during the operation phase.

## 16.12.21. **Assessment**

- 16.12.22. Having examined Chapter 13 of the EIAR, associated documentation, and the submissions received, it is my view that the proposed development would not have significant adverse impacts on landscape and visual amenities along the grid route. The most significant direct effects would arise during the construction phase. However, I consider that impacts on trees and vegetation would be temporary and not significant. Appropriate mitigation measures are proposed for the protection of walls, structures, vegetation and sensitive habitats.
- 16.12.23. Excavation works would be temporary and confined to 100-200m stretches of roadway, minimising visual impact on the landscape. Excavated land along roads would be reinstated to Local Authority standards, and other areas outside roads and tracks would be re-vegetated. Given the underground nature of the grid connection cable, it would not be visible once in operation. The proposed directional drilling at eight watercourses would prevent impacts to watercourses at these locations.
- 16.12.24. I do not consider the proposed development would result in cumulative impacts with other projects in the area. The requirement for road opening licences would mitigate and control impacts on the landscape. Given the temporary and confined 100-200 metres stretches of excavations at any one time, I do not consider the proposed development would significantly impact access along the East Clare Way. No cumulative effects would occur during the operation phase, and residual effects would be insignificant.

# 16.12.25. **Conclusion**

16.12.26. I conclude that subject to the implementation of the proposed mitigation measures, the proposed development would not significantly adversely affect the landscape or visual amenities in the area of the proposed development.

#### 16.13. Interactions between the Environmental Factors

#### 16.13.1. **Issues Raised**

16.13.2. It is submitted in third-party submissions that the EIAR does not adequately address interacting effects, such as between water quality and human health and the interactions between the removal of roadside vegetation and biodiversity. Concerns regarding cumulative impacts on traffic, hydrology, and the East Clare Way are also expressed. It is also submitted that the EIAR does not adequately address cumulative impacts on bird species, notably hen harriers and protected SPAs, in particular the Slieve Aughty SPA site, located 7km from the wind farm site.

#### 16.13.3. Methodology

16.13.4. The EIAR states that the interactions between the environmental factors and their effects are already addressed within each assessment topic area or chapter of the EIAR. The methodology for assessing the interaction of environmental factors uses a matrix of impacts (Table 14-1) to summarise the relevant interactions and interdependencies between specific environmental aspects, and a significance rating is given. The interactions are identified for the construction [C] and operation [O] phases of the development and are classified as minor or major based on the impacts previously identified in the EIAR. The report states that the significance rating is in accordance with EPA significance rating criteria. The report states that where the potential for significant effects has been identified, mitigation measures have avoided or reduced these impacts, as detailed in the EIAR.

#### 16.13.5. **Potential Effects**

16.13.6. The EIAR states that the majority of the impacts will occur during the construction phase. The report then details the critical interactions identified between the various environmental topics assessed in this EIAR during the construction and operational phases.

- 16.13.7. Regarding Population and Human Health, the report identifies interacting effects from noise and vibration from plant and machinery. However, mitigation measures detailed in Chapter 9 of the EIAR (as summarised above) would address these issues. The report notes the potential for temporary, negative effects in terms of dust emissions during the construction phase. However, the proposed dust mitigation measures, as detailed in Chapter 11, would minimise these risks.
- 16.13.8. Regarding Material Assets, the EIAR describes how the proposed development would give rise to increased traffic on the local road network and traffic management measures, including alternating one-way stop/go traffic and temporary road closures and diversions. This would result in temporary disruption to existing traffic and access for the local community. However, the report states that implementing a Traffic Management Plan would manage traffic coming to and from the site.
- 16.13.9. Regarding landscape and visual impact, the EIAR acknowledges the visual impact of the proposed development during the construction phase. However, this would be temporary and short-term, with no visual effects during the operation phase.
- 16.13.10. Regarding biodiversity, the report identifies interactions arising from noise and vibration and from water, land, and soil. During the construction phase, the report acknowledges that noise from the proposed development would likely impact fauna. However, noise disturbance would be temporary and not significant. The report notes the potential for water pollution from different sources during construction, which may affect the quality of aquatic habitats and thereby adversely impact the fauna that depend on the habitat. The report states that the mitigation measures in Chapter 6, Biodiversity and Chapter 7, Water of the EIAR, would prevent any impacts. The report also notes that habitat disturbance would occur during the construction phase. However, the report states that the development would be confined to existing forestry tracks and public roads, except where it would traverse degraded upland blanket bog, conifer plantation, and recently felled woodland and agriculture habitats at the site's northern extent. The report states that upland blanket bog habitat will be lost along a stretch of no more than 40 meters and that this loss is not significant as it is already in a degraded condition. Proposed mitigation measures in Chapters 6 and 7 would address any other potential impacts.

- 16.13.11. Regarding water quality, the report notes the construction phase would require excavations requiring the removal of vegetation cover/ road pavement and excavation of mineral subsoil (where present), which would lead to potential sources of pollution for surface waters. However, the report states that the mitigation measures detailed in Chapter 7 of the EIAR would prevent any impact on water quality.
- 16.13.12. Regarding Cultural Heritage, the EIAR states that there is potential for previously unrecorded sites of archaeological interest to be disturbed during excavation works. However, all excavations across previously undisturbed greenfields would be monitored by a suitably qualified archaeologist. Any features of archaeological potential discovered would be notified to the Department of Housing, Local Government and Heritage and preserved in situ or recorded, subject to approval by the Department.
- 16.13.13. Regarding Air Quality and Climate, the report details how dust would be generated by construction traffic on public roads. However, dust prevention measures would minimise potential impacts. The report also notes the potential for exhaust emissions from vehicles during construction. However, the report states that they are unlikely to have an adverse effect on local air quality and would not significantly impact local, regional or national Air Quality Standards.

#### 16.13.14. **Assessment**

- 16.13.15. Having examined Chapter 14 of the EIAR, associated documentation and issues raised in the submissions received, I am satisfied that interactions between the environmental factors arising from the proposed development have been adequately addressed in the EIAR. The methodology used, including the matrix and the description of impacts, clearly indicates the potential significant interacting effects between each environmental factor.
- 16.13.16. In terms of direct and indirect effects, I consider the interactions detailed in the EIAR regarding Population and Human Health, Material Assets, Landscape and Visual Impact, Biodiversity, Water and Cultural Heritage and Air Quality and Climate are unlikely to result in significant environmental impacts. For example, the implementation of the Traffic Management Plan, CEMP, and the requirement to obtain road opening licences from the Local Authority would prevent significant traffic congestion, disruption and road safety issues for the local community. Dust

suppression methods would prevent impacts on human health. Underground directional drilling (HDD) or over-bridge in-road solutions would avoid instream works and disturbance to fluvial habitats. The implementation of the mitigation measures in the CEMP (Appendix 2-2) would prevent risks to water quality and biodiversity and impacts on the local community. Restricted hours of construction and delivery of materials would prevent an impact on residential amenities and disruption to the local community. Construction noise would accord with relevant noise standards and regulations.

- 16.13.17. Implementing the Invasive Alien Species Management Plan would prevent the spread of invasive species that would otherwise affect sensitive habitats and species. The degraded upland blanket bog at the northern end would be fenced to avoid access beyond working areas. Construction works would avoid the loss of mature trees. Implementing the Emergency Spill Response Plan would mitigate accidental spillages, preventing impacts on water quality and biodiversity. Given the underground nature of the grid connection and its distance from sensitive breeding areas, I do not consider the proposal would have significant adverse effects on sensitive bird species such as hen harrier.
- 16.13.18. I consider that the proposed mitigation measures in each of the environmental chapters in the EIAR, CEMP, and associated documents would be effective and appropriate, preventing adverse effects on the environment.
- 16.13.19. Regarding cumulative impacts, I do not consider the proposed development would result in significant cumulative effects with other existing or permitted developments in the area. The proposed mitigation measures would ensure that interactions between the environmental factors remain within acceptable limits.

### 16.13.20. **Conclusion**

16.13.21. I conclude that the interactions between the environmental factors would have no significant adverse impacts, either directly, indirectly or cumulatively. The proposed mitigation measures would adequately manage potential interactions for each environmental factor.

### 16.14. Reasoned Conclusion

- 16.14.1. Having regard to the examination of environmental information contained above, and in particular, to the EIAR and associated information provided by the Applicant, and the submission from the Planning Authority, Observers and Prescribed Bodies in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:
  - Positive short-term impacts on **Population** and **Human Health** in terms of the local economy from employment during the construction period.
  - Potential short-term negative impacts on Population and Human Health due to dust and noise during the construction stage. These effects would be effectively mitigated through the mitigation measures detailed in the EIAR and the implementation of the CEMP.
  - Direct effects on **Biodiversity**. There would be potential for habitat loss, notably a 40m stretch of degraded upland blanket bog at the northern end of the route. However, the loss would not be significant due to the already degraded condition of the upland blanket bog habitat. Excavated areas on undisturbed land would be backfilled and revegetated. Noise disturbance to fauna would not be significant. The proposal would not involve direct disturbance to Natura 2000 European Sites. The underground nature of the grid connection and its distance from sensitive breeding areas and habitats such as Hen Harrier would not pose a risk to protected species.
  - Positive long-term effects on Air Quality and Climate Change during the operation phase as it would enable the transmission of renewable energy from the wind farm to the national grid, thereby reducing GHG emissions.
  - Temporary disruptions to Traffic, resulting in road closures and diversions. Direct effects would be temporary and limited to short stretches of public roads. These would be managed by implementing the Traffic Management Plan and controlled by the Local Authority through road opening licences.
  - Potential negative impacts on **Water Quality** as a result of sediment release into surface waters and accidental pollution spillages into the local drainage system during the construction phase. These impacts would be mitigated through the

implementation of the CEMP, horizontal directional drilling, and drainage control measures detailed in the EIAR.

- Potential contamination of Land and Soil from accidental spillages of chemicals from fuel. These impacts would be mitigated through the implementation of the Emergency Spill Response Plan and the mitigation measures detailed in the CEMP and EIAR.
- Potential impacts on **Cultural Heritage** would be mitigated during the construction stage through archaeological monitoring of groundworks.
- Regarding waste, excavated materials would be disposed of at licenced facilities.
- 16.14.2. In consideration of the above, I am satisfied that the proposed development, subject to the implementation of the proposed mitigation measures, would not have any unacceptable direct or indirect effects on the environment, including population and human health, biodiversity, land, soil, water, air and climate. Furthermore, there would be no significant adverse impacts on material assets, cultural heritage, or the landscape. Any interactions between these environmental factors would not lead to adverse impacts on the environment. The implementation of the proposed mitigation measures during the construction and operation phases of the proposed development would ensure no residual impacts occur.

# 17.0 Appropriate Assessment Screening

17.1.1. This section details the requirements under Article 6(3) of the Habitats Directive, which requires the screening of projects to determine the need for Appropriate Assessment (AA). This assessment is carried out in accordance with Part XAB, Section 177U of the Planning and Development Act 2000 (as amended), to ensure that all potential impacts for designated Natura 2000 European Sites are fully evaluated. This assessment for Appropriate Assessment follows the steps outlined in the OPR's Practice Note PN01: Appropriate Assessment Screening for Development Management (2021) and other relevant AA guidance documents.

# 17.2. Overview of the Screening Report

17.2.1. The applicant has submitted with the application a Screening Report for Appropriate Assessment, dated April 2024, prepared by MWP Engineering.

- 17.2.2. The Screening Report sets out the methodology for the Screening for Appropriate Assessment based on relevant guidance and is informed by the description of the proposed development, an overview of the site location, a desktop study to gather available information on the site's natural environment, field surveys to provide an overview of the baseline ecology in the study area and an assessment of the potential impacts and effects of the proposed development on Natura 2000 sites within the zone of influence (5km). Other documents accompanying the planning application include an Environmental Impact Assessment Report, a Construction and Environmental Management Plan and a Construction Methodology Report.
- 17.2.3. The Screening Report identifies two designated Special Areas of Conservation (SACs) with the selected 5 km zone of influence (ZOI), including the Slieve Bernagh Bog SAC (Site Code: 002312) adjacent to the northern section of the proposed development and Glenomra Wood SAC (001013) intersected by the public road serving the proposed development. Table 2 in the report details the qualifying features of conservation interest of these Natura 2000 sites.
- 17.2.4. The report states that the ZOI of 5km was selected based on the nature, scope, scale and location of the works required to install and operate the proposed grid connection. The screening uses a source-pathway-receptor model stating that given there are no instream works and taking account of distance and that watercourses would be crossed by horizontal directional drilling, there would be no potential effects on Natura 2000 sites beyond the ZOI of 5 km downstream or where there are indirect links to the proposed development via surface water pathways. The report states that the proposed development does not have the potential to affect Natura 2000 sites outside of the ZOI due to the lack of hydrological, landscape and ecological connectivity and the nature, scope, scale and location of the works required to install and operate the proposed grid connection.
- 17.2.5. The AA Screening Report concludes that the proposed development would not have a significant effect on any Natura 2000 European site, either individually or in combination with other plans and projects, including all other elements of the overall project.
- 17.2.6. Having reviewed the documentation submitted and the submissions from Prescribed Bodies, I am satisfied that the information provided allows for an examination and

identification of any potential significant effects of the development, both individually and in combination with other plans and projects, including all other elements of the overall project, on Natura 2000 European Sites.

### 17.2.7. Screening for Appropriate Assessment -Test of likely significant effects

17.2.8. The proposed grid connection cable route is located adjacent to the west of and, at two points, adjoins the western boundary of the Slieve Bernagh Bog SAC (Site Code: 002312) in the northern section of the site. The proposed development also intersects the Glenomra Wood SAC (Site Code: 001013), located near the middle section of the site. The proposed development is examined in relation to any possible interaction with these Natura 2000 sites to assess whether it may give rise to significant effects on these European Sites.

### 17.2.9. Brief Description of the Proposed Development

17.2.10. The AA Screening Report provides a brief description of the proposed development. In summary, the proposal is described as comprising a 25 km long 110kV underground cable connection from the permitted Carrownagowan Wind Farm substation (permitted under ABP Ref 308799) to the existing ESB-owned 110kV substation at Ardnacrusha, which would allow the electrical energy generated from the wind farm to be exported onto the national grid. The grid connection works would take c. 6-8 months to complete. Other project elements include a total of 9 no. major watercourse crossings along the route. Eight of the watercourse crossings would be completed using a Horizontal Directional Drill (HDD), which would require a service trench (launch pit) for the drill in the road on either side of the watercourse, and one of the watercourse crossings would be completed using over-bridge in road solution. The AA Screening report states that there would be no interactions with any watercourse. Joint bays are pre-cast concrete chambers which would be required along the grid connection route over its entire length. These are required to join cables together to form one continuous cable. They would be located at various points along the route c. every 700 - 850 metres depending on gradients, bends, etc. It is proposed to install 35 no. joint bays and communication chambers along the route.

# 17.2.11. **Description of Site Characteristics**

17.2.12. The proposed development extends c. 25km from the permitted Carrownagowan wind farm substation in the northern section of the site in the townland of Caherhurly, to the Ardnacrusha substation in the southern section of the site. The proposed development would be installed mostly along public roads, with sections in the northern section of the site across agriculture and forestry land, degraded blanket bog and commercial forestry tracks where the grid route deviates off the public road. The public roads themselves are hard surfaced, with grass or vegetated verges in some sections, as well as sections of wall, tree lines, and hedgerow vegetation. The grid connection route would travel through Ardnacrusha and Kilbane village. Land adjoining the route is characterised by residential dwellings, agricultural landholdings and structures, historical and cultural features, bridges, coniferous plantations, mature trees and woodlands (e.g. Glenomra Wood), hedgerows, peatland and scrub. Further details of the site and surrounding area are described in the preceding sections of this report.

### 17.2.13. **Prescribed Bodies Consulted**

17.2.14. An Bord Pleanála consulted with the Department of Housing, Local Government and Heritage, Transport Infrastructure Ireland and Clare County Council.

### 17.2.15. Relevant Natura 2000 European Sites

- 17.2.16. Table 1.0 below details Natura 2000 Sites within a 15 km radius of the proposed development, identified using the Source-Pathway-Receptor model. It lists their qualifying interests/conservation objectives, distance from the site, potential source-pathway connections between the site and the Natura 2000 sites and whether or not they are considered further in the screening assessment.
- 17.2.17. As detailed above, at the northern end of the site, the proposed development passes along and, at two points, adjoins the western boundary of the Slieve Bernagh Bog SAC (Site Code: 002312). The Proposed Development is also located within the existing road intersecting the Glenomra Wood SAC (Site Code: 001013) towards the centre of the site.
- 17.2.18. Surface waterbodies draining the proposed development in the southern section of the site section drain into the Lower River Shannon SAC (Site Code:

002165). At its closest point, this Natura 2000 site is located c.1.6km to the southwest of the site. The Lower River Shannon SAC is hydrologically connected with the site via the Glenlon South, the Blackwater [Clare] and the Shannon (Lower) Rivers, respectively.

# 17.2.18.1. Table 1.0 Identification of European Sites within 15 km of the Proposed Development, including Qualifying Interests, Conservation Objectives, and Pathways

European Site (code)	List of Qualifying Interest/Special Conservation Interest	Distance from proposed development (km)	Connections (Source- Pathway- Receptor)	Considered further in screening Y/N
Slieve Bernagh Bog SAC (Site Code: 002312)	Northern Atlantic wet heaths with Erica tetralix [4010] European dry heaths [4030] Blanket bogs (* if active bog) [7130]	0km	Potential hydrological connections through surface water runoff and groundwater	Yes
Glenomra Wood SAC (Site Code: 001013)	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	0km	Potential hydrological connections through surface water runoff and groundwater	Yes
Lower River Shannon SAC (Site Code: 002165)	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140]	c. 1.6km to the southwest and 4.3km to the east	Potential hydrological connections through surface water runoff and groundwater	Yes

Coastal lagoons [1150]		
Large shallow inlets and bays [1160]		
Reefs [1170]		
Perennial vegetation of stony banks [1220]		
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]		
Salicornia and other annuals colonising mud and sand [1310]		
Atlantic salt meadows (Glauco- Puccinellietalia maritimae) [1330]		
Mediterranean salt meadows (Juncetalia maritimi) [1410]		
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho- Batrachion vegetation [3260]		
Molinia meadows on calcareous, peaty or clayey- silt-laden soils (Molinion caeruleae) [6410]		
Alluvial forests with Alnus glutinosa and Fraxinus		

Slieve Aughty	excelsior (Alno- Padion, Alnion incanae, Salicion albae) [91E0] Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Petromyzon marinus (Sea Lampetra planeri (Brook Lamprey) [1096] Lampetra fluviatilis (River Lamprey) [1099] Salmo salar (Salmon) [1106] Tursiops truncatus (Common Bottlenose Dolphin) [1349] Lutra lutra (Otter) [1355]	c. 8km to the	No potential	Νο
Mountains SPA (Site Code: 004168)	(Circus cyaneus) [A082] Merlin (Falco columbarius) [A098]	north	connections	
Lough Derg (Shannon) SPA (Site Code: 004058)	Cormorant (Phalacrocorax carbo) [A017] Tufted Duck (Aythya fuligula) [A061]	c. 6.8km to the northeast, east and southeast.	No potential connections	No

	Goldeneye (Bucephala clangula) [A067] Common Tern (Sterna hirundo) [A193] Wetland and Waterbirds [A999]			
Slievefelim to Silvermines Mountains SPA (Site Code: 004165)	Hen Harrier (Circus cyaneus) [A082]	c. 15km to the east.	No potential connections	No
and River Fergus Estuaries SPA (Site Code: 004077)	(Phalacrocorax carbo) [A017] Whooper Swan (Cygnus cygnus) [A038] Light-bellied Brent Goose (Branta bernicla hrota) [A046] Shelduck (Tadorna tadorna) [A046] Wigeon (Anas penelope) [A050] Teal (Anas crecca) [A052] Pintail (Anas acuta) [A054] Shoveler (Anas clypeata) [A056] Scaup (Aythya marila) [A062]	southwest.	connections	
	Ringed Plover (Charadrius hiaticula) [A137]			

Golden Plover		
(Pluvialis		
apricaria) [A140]		
Grey Plover		
Squatarola)		
Lapwing		
(Vanellus		
vanellus) [A142]		
Knot (Calidris		
canutus) [A143]		
Dunlin (Calidris		
alpina) [A149]		
Black-tailed		
Godwit (Limosa		
limosa) [A156]		
Bar-tailed Godwit		
(Limosa		
lapponica)		
[A157]		
Curlew		
(Numenius		
arguata) [A160]		
Dodobonk		
(Tringa totanus)		
(11inga totanus) [A162]		
Greenshank		
(Tringa pobularia) [A164]		
Black-headed		
Gull		
(Chroicocephaius		
[A179]		
Wetland and		
[,,000]		

#### 17.2.19. Assessment of Likely Significant Effects

- 17.2.20. During the construction phase, the proposed development poses the risk of potential for surface water runoff to carry suspended solid contaminants into rivers and streams. This could affect aquatic fauna by degrading fluvial habitats and impairing feeding habitats. However, the proposed development route would be almost entirely confined to existing roads, diverging slightly at watercourse crossings and some joint bay locations. Also, in the northern section, it would cross fields and commercial forestry land. Where the proposed development crosses watercourses, construction works would use underground directional drilling (HDD) or over-bridge in-road solutions, avoiding instream works and disturbance to fluvial habitats. No instream works would occur.
- 17.2.21. The proposed development has the potential for habitat loss, notably a 40 m stretch of degraded upland blanket bog at the northern end of the route. However, this loss would not be significant due to the already degraded condition of the upland blanket bog habitat and ongoing commercial forestry operations within the surrounding area. The extent of excavations in the degraded upland blanket bog would be limited (40m) and shallow in depth. Given that the upland blanket bog is already degraded, its ecological value is diminished. Spoil from excavations would not be deposited on peatland.
- 17.2.22. The proposed development has the potential for disturbance to sensitive species in adjoining SACs from noise and vibration from construction traffic and machinery. However, the impact would not be significant given the temporary and phased nature of the proposed works (100-200m at any one time) and the implementation of best practice measures to manage noise, as detailed in the EIAR and CEMP. Furthermore, species in the adjoining Natura 2000 sites are accustomed to vehicular traffic and agricultural and forestry activities and would not be significantly disrupted by construction works and machinery.
- 17.2.23. During the construction impact, dust would be generated from work activities. However, the effects of dust would be prevented and controlled by best practice measures. Emissions from vehicle exhausts and machinery would not be significant. Any emissions from construction and machinery would be temporary, limited in extent, and dispersed quickly, given the development site's mostly open rural location.

- 17.2.24. There is potential for loss of treeline habitat in the northern section of the route for a maximum length of 30 m. However, this is not located in the adjacent Slieve Bernagh Bog SAC. The majority of cables would be laid within road corridors. While minor vegetation clearance and trimming may occur at road edges and potentially at Bridge 3 over the Glemomra Wood Stream, hedgerows, treelines and other seminatural habitats close to proposed works along the grid connection cable route would be protected from accidental damage.
- 17.2.25. There is a threat to the favourable conservation condition of old sessile oak woods in Glenomra Wood SAC, which is sensitive to invasive species. However, the implementation of the Invasive Species Management Plan would prevent impacts on old sessile oak woods in the Glenomra Wood SAC, maintaining their habitat conservation condition. Given that the proposed grid connection cable would be contained for the most part within public roads, particularly where it intersects the Glenomra Wood SAC, the risk of spreading invasive species is low. On this basis, it is my view that the Invasive Species Management Plan would be a precautionary prevention measure rather than a mitigation measure.
- 17.2.26. It should be noted and emphasised that while best practice construction methods are detailed in the EIAR and the CEMP (Appendix 2-2), these are not required to avoid or reduce any significant effects on any Natura 2000 site in proximity to and zone of influence of the proposed development.

#### 17.2.27. **Description of any likely changes to European sites:**

17.2.28. The qualifying interests of Slieve Bernagh Bog SAC (Site Code: 002312) are habitats consisting of Wet Heath, Dry Heath and Blanket Bogs (Active). Slieve Bernagh Bog is a site of considerable conservation importance as it contains a range of peatland types, including active blanket bog, a habitat listed with priority status under the E.U. Habitats Directive. It is one of the last remaining areas of intact open moorland habitat in this part of the country. The favourable conservation status of this habitat is achieved when (i) its natural range and the area it covers within that range are stable or increasing, (ii) the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and (iii) the conservation status of its typical species is favourable.

This criteria also applies to habitats protected in the Glenomra Wood SAC and the Lower River Shannon SAC below.

- 17.2.29. The qualifying interests of Glenomra Wood SAC (Site Code: 001013) are Old Oak Woodlands. The dominant tree in Glenomra Wood SAC is Downy Birch (Betula pubescens), mixed with Sessile Oak (Quercus petraea), Ash (Fraxinus excelsior) and Beech (Fagus sylvatica) throughout. Glenomra Wood is recognised by the NPWS as a good example of a deciduous semi-natural woodland and is of considerable conservation significance as it is of a type listed on Annex I of the E.U. Habitats Directive.
- 17.2.30. The qualifying interests of the Lower River Shannon SAC (Site Code: 002165) are extensive and detailed in Table 1.0 above. The favourable conservation status of a species in the SAC is achieved when (i) population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, (ii) the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and (iii) there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
- 17.2.31. The proposed development would not directly affect the qualifying interests of the Slieve Bernagh Bog SAC, Glenomra Wood SAC or Lower River Shannon SAC, as the proposed grid connection route is not located within the habitats listed as qualifying interests. The proposed development would, for the most part, be confined to existing public roads and forestry tracks. In particular, where the route intersects the Glenomra Wood SAC, the grid connection would be laid underground along the public road. There would be no loss or fragmentation of habitats listed as qualifying interests in the Glenomra Wood SAC, Slieve Bernagh Bog SAC or distant Lower River Shannon SAC.
- 17.2.32. The only potential impact on the Slieve Bernagh Bog SAC, Glenomra Wood SAC, and Lower River Shannon SAC would be surface water runoff and discharges from construction working areas, including occasional pumping to dewater excavations. Potential impacts could result in indirect effects, such as sediment or other pollutants contaminating surface water systems and deteriorating water quality. However, this would not occur given that the proposed works would be confined to the public road and shallow excavations, and no significant dewatering is proposed during

construction. Any pumping required would be temporary and at a very shallow depth. As detailed in the CEMP, drilling fluid returns would be contained within a sealed tank/sump to prevent migration from the works area. Spills of drilling fluid would be cleaned up immediately and stored in an adequately sized skip before being taken offsite.

- 17.2.33. The conservation objectives of the qualifying interests of Slieve Bernagh Bog SAC and Glenomra Wood SAC would not be affected by the identified potential impacts as the habitats concerned do not rely on surface water receptors' water quality. Furthermore, given that there are no instream works and that watercourses would be crossed by horizontal directional drilling, there is limited risk of discharge of contaminated surface water to surface water receptors. Thus, there is no risk of sediment-laden or polluted surface water affecting Slieve Bernagh Bog SAC and Glenomra Wood SAC or downstream Lower River Shannon SAC. In the event that discharge of sediment-laden or polluted surface water was to occur, it is considered that any indirect effect on Natura 2000 sites would not be significant due to geographical separation distances and lack of hydrological, landscape and ecological connectivity.
- 17.2.34. In-combination impacts have been considered, including the permitted Carrownagowan Wind Farm, the Fahey Beg Wind Farm and Drummin Solar Farm grid connections and other planning applications near the proposed grid connection cable route. Any work along public roads relating to the proposed development and the Fahey Beg Wind Farm and Drummin Solar Farm grid connections would require road opening licences, which are controlled by the Local Authority. This would ensure that works are carried out in accordance with Local Authority requirements, preventing potential impacts to adjacent Natura 2000 sites. Projects within 5 km of the proposed development, as detailed in Clare and Limerick County Council's databases, relate to small-scale residential and agricultural development, which would not create cumulative effects with the proposed development due to the nature, scale, and context. The proposed development itself would not have any effects on the qualifying interests/ special conservation interests or conservation objectives of any European Sites, and there is no potential for any other plan or project to act in combination with it to result in significant effects on any European Site.

## 17.2.35. Mitigation Measures

17.2.36. No specific mitigation measures are required to prevent likely significant effects on European sites in this screening for Appropriate Assessment. While best practice construction methods are referenced, they are not required to avoid or reduce any effects on a European site. These measures are not relied upon to reach a conclusion of no likely significant effects on any European site.

## 17.2.37. Screening Determination

- 17.2.38. Having carried out Screening for Appropriate Assessment of the project, it is concluded that the project individually or in combination with other plans or projects would not be likely to give rise to significant effects on any of the above-listed Natura 2000 Sites, or any other European designated Natura 2000 site, in view of the sites' Conservation Objectives, and Appropriate Assessment is not therefore required. This determination is based on the following:
  - The proposed works would be confined to public roads, thereby minimising direct impacts on habitats and species in adjacent Natura 2000 sites.
  - Excavations would be shallow in depth and localised in extent, reducing the risk of impacts to groundwaters, which are hydrologically connected to Natura 2000 sites.
  - Best practice construction methods would prevent contamination of surface water runoff.
  - Construction works would be temporary and short-term, limiting potential impacts from noise vibration and air emissions.
  - The implementation of the Invasive Species Management Plan would prevent impacts to sensitive species in adjacent Natura 2000 sites.
  - Cumulative impacts with other existing or planned developments in the surrounding area would not be significant.

# 18.0 **Recommendation**

18.1.1. I recommend that planning permission for the proposed development be approved, subject to conditions, for the reasons and considerations set out below.

# 19.0 Reasons and Considerations

19.1.1. In coming to its decision, the Board had regard to the following:

- a) the nature, scale and extent of the proposed development,
- b) the characteristics of the site and surrounding area,
- c) the national targets for renewable energy,
- d) European, national, regional and county level support for renewable energy development such as:
  - Consistency with the Climate Action Plan, 2024
  - Project Ireland 2040 National Planning Framework
  - Regional Spatial and Economic Strategy for the Southern Region
  - Clare County Development Plan 2023-2029
  - Clare Wind Energy Strategy (2023)
- e) the documentation submitted with the application including the Environmental Impact Assessment Report, Appropriate Assessment Screening Report, and associated documentation.
- f) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites,
- g) the planning history of the immediate area, including proximity to the permitted Carrownagowan Windfarm and Substation (ABP Ref. 308799-20),
- h) the distance to dwellings or other sensitive receptors from the proposed development,
- the submissions on file, including those from observers, prescribed bodies and the Planning Authority,
- j) the mitigation measures proposed for the construction and operation of the site,
- k) the report of the Inspector.

#### 19.1.2. Proper Planning and Sustainable Development

19.1.3. It is considered that subject to compliance with the conditions set out below, the proposed development would accord with European, national, regional and local planning and related policy, it would not have an unacceptable impact on landscape, cultural heritage or ecology, it would not seriously injure the visual or landscape amenities of the area or of property in the vicinity, and it would be acceptable in terms of water and drainage impacts. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

#### 19.1.4. Appropriate Assessment Screening

19.1.5. In conducting a screening exercise for Appropriate Assessment, the Board considered the nature, scale and context of the proposed development, the documentation on file, in particular, the Appropriate Assessment Screening Report submitted in support of the proposed development, the submissions on file and the assessment of the Inspector in relation to the potential for significant effects on European Sites. In undertaking the screening exercise, the Board accepted the analysis and conclusions of the Inspector. The Board concluded that, by itself and in combination with other developments in the vicinity, the proposed development would not be likely to have significant effects on any European Site in view of the Sites' Conservation Objectives. In reaching this conclusion, the Board took no account of mitigation measures intended to avoid or reduce the potentially harmful effects of the project on any European Sites.

#### 19.1.6. Environmental Impact Assessment

- 19.1.7. The Board completed an environmental impact assessment of the proposed development, taking into account:
  - a) the nature, scale and extent of the proposed development,
  - b) the Environmental Impact Assessment Report and associated documentation submitted in support of the application,
  - c) the submissions from the applicant, observers and prescribed bodies in the course of the application, and

d) the Inspector's report.

- 19.1.8. The Board considered that the Environmental Impact Assessment Report, supported by the information submitted by the applicant, identifies and describes adequately the direct, indirect and cumulative effects of the proposed development on the environment. The Board is satisfied that the information contained in the EIAR complies with the provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU.
- 19.1.9. The Board agreed with the summary and examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and the submissions made in the course of the application as set out in the Inspector's report. The Board was satisfied that the Inspector's report sets out how these various environmental issues were addressed in the examination and recommendation which are incorporated into the Board's decision.

Reasoned Conclusion of the Significant Effects:

- 19.1.10. The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, provided information which is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed development on the environment, taking into account current knowledge and methods of assessment. The Board is satisfied that the information contained in the Environmental Impact Assessment Report is up to date and complies with the provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU. The Board considered that the main significant direct and indirect effects of the proposed development on the environment are those arising from the impacts listed below.
- 19.1.11. The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the proposed mitigation measures, as set out in the EIAR "Mitigation Measures' section of the various chapters and, subject to compliance with the conditions set out herein, the effects on the environment of the proposed development by itself and cumulatively with other development in the vicinity would be acceptable. In doing so, the Board adopted the report and conclusions of the reporting Inspector.

- 19.1.12. The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and will be mitigated as follows:
  - Positive short-term impacts on Population and Human Health in terms of the local economy from employment during the construction period.
  - Potential short-term negative impacts on Population and Human Health due to dust and noise during the construction stage. These effects would be effectively mitigated through the implementation of the mitigation measures detailed in the EIAR and CEMP.
  - Direct effects on Biodiversity. There would be potential for habitat loss, notably a 40m stretch of degraded upland blanket bog at the northern end of the route. However, the loss would not be significant due to the already degraded condition of the upland blanket bog habitat. Excavated areas on undisturbed land would be backfilled and revegetated. Noise disturbance to fauna would not be significant. The proposal would not involve direct disturbance to Natura 2000 European Sites. The underground nature of the grid connection and its distance from sensitive breeding areas and habitats such as Hen Harrier would not pose a risk to protected species.
  - Positive long-term effects on Air Quality and Climate Change during the operation phase as it would enable the transmission of renewable energy from the wind farm to the national grid, thereby reducing GHG emissions.
  - Temporary disruptions to Traffic, resulting in road closures and diversions.
     Direct effects would be temporary and limited to short stretches of public roads. These would be managed by implementing the Traffic Management Plan and controlled by the Local Authority through road opening licences.
  - Potential negative impacts on Water Quality as a result of sediment release into surface waters and accidental pollution spillages into the local drainage system during the construction phase. These impacts would be mitigated through the implementation of the CEMP, horizontal directional drilling, and drainage control measures detailed in the EIAR.
  - Potential contamination of Land and Soil from accidental spillages of chemicals from fuel. These impacts would be mitigated through the implementation of the Emergency Spill Response Plan and the mitigation measures detailed in the CEMP and EIAR.

- Potential negative impacts on Cultural Heritage would be mitigated during the construction stage through archaeological monitoring of groundworks.
- Regarding waste, a planned and mitigated approach to waste management will ensure that the impact on the environment will be short-term, neutral and imperceptible.
- 19.1.13. The Board is satisfied that the reasoned conclusion is up to date at the time of making the decision.

# 20.0 Conditions

1.	The development shall be carried out and completed in accordance with
	the plans and particulars lodged with the application, except as may
	otherwise be required in order to comply with the following conditions.
	Where such conditions require details to be agreed upon with the planning
	authority, the developer shall agree to such details in writing with the
	planning authority prior to the commencement of development, and the
	development shall be carried out and completed in accordance with the
	agreed-upon particulars.
	Reason: In the interest of clarity.
2.	The mitigation measures identified in the EIAR and other plans and
	particulars submitted with the planning application shall be implemented in
	full by the developer in conjunction with the timelines set out therein, except
	as may otherwise be required in order to comply with the conditions of this
	permission.
	Reason: In the interest of clarity and protection of the environment during
	the construction and operational phases of the proposed development.
3.	Prior to the commencement of development, the developer shall submit for
	written agreement with the Planning Authority the following:
	(a) Drawings showing cross sections of existing foul water sewers adjacent
	to the cable route hereby permitted, including horizontal and vertical

	distances between proposed cables and existing watermains adjacent to same;
	(b) Drawings showing cross sections of existing foul water sewers adjacent to the cable route hereby permitted, including horizontal and vertical distances between proposed cables and existing foul water sewers adjacent to same;
	(c) Drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the Planning Authority for such works in respect of both the construction and operational phases of the proposed development.
	Reason: In the interest of environmental protection and public health.
4.	The crossing of watercourses by the 110kV underground grid connection cable shall be constructed using the Horizontal Directional Drilling (HDD) methodology in accordance with the Construction Methodology Statement submitted with the application.
	Reason: In the interest of environmental protection.
5.	Reason: In the interest of environmental protection. Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following:
5.	<ul> <li>Reason: In the interest of environmental protection.</li> <li>Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following:</li> <li>(a) a tree and hedgerow survey of the site;</li> </ul>
5.	<ul> <li>Reason: In the interest of environmental protection.</li> <li>Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following: <ul> <li>(a) a tree and hedgerow survey of the site;</li> <li>(b) an arboricultural impact report;</li> </ul> </li> </ul>
5.	<ul> <li>Reason: In the interest of environmental protection.</li> <li>Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following: <ul> <li>(a) a tree and hedgerow survey of the site;</li> <li>(b) an arboricultural impact report;</li> <li>(c) a landscaping plan to include tree protection plans coupled with proposasl for reinstatement and/or mitigation planting.</li> </ul> </li> </ul>
5.	<ul> <li>Reason: In the interest of environmental protection.</li> <li>Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following: <ul> <li>(a) a tree and hedgerow survey of the site;</li> <li>(b) an arboricultural impact report;</li> <li>(c) a landscaping plan to include tree protection plans coupled with proposasl for reinstatement and/or mitigation planting.</li> <li>Landscaping to replace felled trees and hedging shall be carried out within the first planting season following the proposed development's construction. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two</li> </ul> </li> </ul>
5.	Reason: In the interest of environmental protection. Prior to commencement of development, the developer shall submit for the written agreement of the Planning Authority the following: (a) a tree and hedgerow survey of the site; (b) an arboricultural impact report; (c) a landscaping plan to include tree protection plans coupled with proposasl for reinstatement and/or mitigation planting. Landscaping to replace felled trees and hedging shall be carried out within the first planting season following the proposed development's construction. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted. The landscaping and correction shall be maintained at require intervals. All tree and abruh

	removal and the demolition of buildings shall be undertaken outside the
	bird nesting season.
	Reason: In the interests of orderly development and the protection of birds.
6.	Prior to commencement of development, a detailed final Construction
	Environmental Management Plan (CEMP) for the construction phase shall
	be submitted to and agreed upon in writing with the local authority,
	generally in accordance with the Outline CEMP included in the
	Environmental Impact Assessment Report. The CEMP shall incorporate the
	following:
	(a) a detailed plan for the construction phase incorporating, inter alia, the
	construction programme, supervisory measures, noise, dust and surface
	water management measures, including the appointment of a Client Liaison
	Officer, construction hours and the management, transport and disposal of
	construction waste,
	(b) a comprehensive programme for the implementation of all monitoring
	commitments made in the planning application and supporting
	documentation during the construction period,
	(c) an emergency response plan, and
	(d) proposals in relation to public information and communication. A record
	of daily checks that the works are being undertaken in accordance with the
	Construction Environmental Management Plan shall be kept for inspection
	by the local authority.
	Reason: In the interest of environmental protection and orderly
	development
7.	The developer shall appoint a suitably qualified ecologist to monitor and
	ensure that all avoidance/mitigation measures relating to the protection of
	flora and fauna are carried out in accordance with best ecological practice
	and to liaise with consultants, the site contractor, the National Parks and
	Wildlife Services and Inland Fisheries Ireland. A report on the
	implementation of these measures shall be submitted to the planning
	authority and retained on file as a matter of public record.

	Re	eason: To protect the environmental and natural heritage of the area.
8.	Th	e developer shall facilitate the preservation, recording and protection of
	ard	chaeological materials or features that may exist within the site. In this
	reę	gard, the developer shall –
	a)	notify the local authority in writing at least four weeks prior to the
		commencement of any site operations (including hydrological and
		geotechnical investigations) relating to the proposed development,
	b)	employ a suitably qualified archaeologist who shall monitor all site
		investigations and other excavation works. No groundworks of any type
		shall take place in the absence of the archaeologist without his/her
		express consent. The use of appropriate machinery to ensure the
		preservation and recording of any surviving archaeological remains
		shall be necessary.
	c)	The archaeological monitoring programme must be carried out under
		license from National Monuments Service and in accordance with an
		approved method statement, note a period of 5-6 weeks should be
		allowed to facilitate processing and approval of the licence application
		and method statement.
	d)	Should archaeological material be found during the course of the
		archaeological monitoring, the archaeologist shall have work on site
		stopped pending a decision regarding appropriate mitigation. The
		developer shall be prepared to be advised by the National Monuments
		Service with regard to any mitigating action (preservation in situ and/or
		excavation). The developer shall facilitate the archaeologist in recording
		any material found.
	e)	The planning authority and National Monuments Service shall be
		furnished with a final archaeological report describing the results of
		archaeological monitoring and of any archaeological investigative
		work/excavation required, following the completion of all archaeological
		work on site and any necessary post-excavation specialist analysis. All

	resulting and associated archaeological costs shall be borne by the developer.			
	Reason: In order to conserve the archaeological heritage of the site and to			
	secure the preservation and protection of any remains that may exist within			
	the site.			
9.	The construction of the development shall be managed in accordance with			
	a Construction Management Plan, a Traffic Management Plan and a Waste			
	Management Plan, which shall be submitted to, and agreed in writing with,			
	the planning authority prior to commencement of development.			
	Reason: In the interest of orderly development and the protection of the			
	environment.			
10.	Site development and building works shall be carried out only between the			
	hours of 0700 to 1900 Mondays to Fridays inclusive, between 0800 to 1400			
	hours on Saturdays and not at all on Sundays and public holidays.			
	Deviation from these times will only be allowed in exceptional			
	circumstances where prior written approval has been received from the			
	planning authority.			
	Reason: In order to safeguard the amenities of property in the vicinity.			
11.	(a) During the construction phase of the proposed development, the noise			
	level arising from the development, as measured at the nearest noise			
	sensitive location shall not exceed:			
	i. An LAeqT value of 55 dB(A) during the period 0700 to 1900 hours			
	from Monday to Friday and 0800 to 1400 on Saturdays. [The T value			
	shall be one hour.]			
	ii. An LAeqT value of 45 dB(A) at any other time. [The T value shall be			
	15 minutes]. The noise at such time shall not contain a tonal			
	component. At no time shall the noise generated on site result in an			
	increase in noise level of more than 10 dB(A) above background			
	levels at the boundary of the site.			

	(b) All sound measurement shall be carried out in accordance with ISO
	Recommendation R 1996 "Assessment of Noise with respect of
	Community Response" as amended by ISO Recommendations R 1996 1, 2
	or 3 "Description and Measurement of Environmental Noise" as applicable.
	Reason: To protect the amenities of property in the vicinity of the site.
12.	All road surfaces, culverts, watercourses, verges, and public lands shall be
	protected during construction and, in the case of any damage occurring,
	shall be reinstated to the satisfaction of the planning authority at the
	developer's expense. Prior to the commencement of development, a road
	condition survey shall be carried out to provide a basis for reinstatement
	works. Details in this regard shall be submitted to and agreed in writing with
	the planning authority prior to the commencement of development.
	Reason: In order to ensure a satisfactory standard of development.
13.	Prior to commencement of development the applicant shall submit to and
	agree with the planning authority plans and particulars for the
	implementation of the Invasive Species Management Plan submitted with
	the application. These plans and particulars shall include the employment
	of suitable qualified and experienced personnel to monitor the development
	works and the removal and safe disposal of contaminated material when it
	arises.
	Reason: To prevent the spread of invasive plant species.
14.	Prior to commencement of development, the developer shall lodge with the
	planning authority a cash deposit, a bond of an insurance company, or
	such other security as may be acceptable to the planning authority, to
	secure the satisfactory reinstatement of the site on cessation of the project
	coupled with an agreement empowering the planning authority to apply
	such security or part thereof to such reinstatement. The form and amount
	of the security shall be as agreed between the planning authority and the
	developer or, in default of agreement, shall be referred to An Bord Pleanála
	for determination.
	Reason: To ensure satisfactory reinstatement of the site.

15. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme. **Reason:** It is a requirement of the Planning and Development Act 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Brendan Coyne Planning Inspector

applied to the permission.

26<sup>th</sup> November 2024