

# Inspector's Report ABP-318545-23

Development	Underground electrical cabling linking wind farm (to be constructed) to operational substation with associated and ancillary site development works. An Environmental Impact Assessment Report and Natura Impact Statement accompany this application.
Location	Keereen Upper, Woodhouse or Tinakilly and Knocknamona, Dungarvan, County Waterford
Planning Authority	Waterford City and County Council
Planning Authority Reg. Ref.	2360416
Applicant(s)	Knocknamona Windfarm Limited
Type of Application	Permission
Planning Authority Decision	Grant permission with conditions
Type of Appeal	Third Party
Appellant(s)	<ol> <li>John &amp; Niamh Reynolds</li> <li>Moya Power</li> </ol>
	3. Gianna & Michael Alen Buckley

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Observer(s)

Date of Site Inspection

Inspector

None

17<sup>th</sup> December 2024

Donal Donnelly

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# 1.0 Site Location and Description

- 1.1. The appeal site is located in the townlands of Keereen Upper, Woodhouse or Tinakilly and Knocknamona in western Co. Waterford approximately 9km west of Dungarvan. The villages of Aglish and Villierstown are approximately 2km and 4km to the west of the site respectively.
- 1.2. The surrounding area is characterised by rolling hills and valleys forming part of the Drum Hills upland area. Carronadavderg to the south of the site rises to 301m OD and Kilnafarna Hill to the east is 263m OD. Knocknamona itself is 206m OD. Elevations in and around the appeal site are between 100m and 200m, with the lowest point at the existing entrance to Woodhouse Windfarm and the highest point to the east of the location of the proposed link road.
- 1.3. The main watercourses in the vicinity are the Goish River to the south, the Finisk River to the north-west and the Brickey River to the east. The nearest 1<sup>st</sup> order stream is the Mountodell Stream which flows 280m to the east and is a tributary of the Brickey River. The site lies within the Finisk\_SC\_010, Goish\_SC\_010 and Colligan\_SC\_010 Sub-Catchments. The Brickey River enters Dungarvan Bay to the east and both the Goish and Finish flow into the River Blackwater to the east. Both the Blackwater and Dungarvan Bay are European Designated Sites. The Finisk River also forms part of the River Blackwater (Cork/ Waterford) SAC.
- 1.4. The main land uses in the surrounding area are forestry and agriculture. The nearest main roads are the R671 to the west and the N72 National Secondary Route further to the north. The appeal site will use the existing access off a local road to the existing Woodhouse Windfarm comprising 8 no. turbines. Woodhouse 110kV Substation is located to the north of the appeal site. The other access to the site is to the south-east via a forestry road off a local road. The appeal site essentially comprises an existing windfarm access road (Woodhouse), Woodhouse Substation, a section of forestry road which will be used for access to Knocknamona Windfarm, and the 190m length of scrub for the link road. The overall site area is 15.23 hectares.
- 1.5. There is sporadic housing and farm buildings in the surrounding area. The nearest house to Woodhouse Substation (330m) and the next nearest dwelling (460m) are owned by landowners involved in the development. The nearest 3<sup>rd</sup> party house is at

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a distance of 550m from the construction works area for the proposed grid connection.

# 2.0 **Proposed Development**

- 2.1. Planning permission is sought for underground electrical cabling linking Knocknamona Windfarm (to be constructed) to an operational substation with associated and ancillary site development works. The proposal comprises the following:
  - 1940m of underground cabling (up to 33kV) linking Knocknamona Windfarm to Woodhouse Substation.
  - Works within Woodhouse Substation comprising a new control building; a 110kV electrical transformer; an electrical transformer bay; 2 no. lightning masts; access track; and gateways and fencing.
  - 190m long link road connecting the existing forestry road network to the existing Woodhouse Windfarm access roads.
  - Widening of 960m of existing forestry road by 1m.
  - All ancillary site works.
- 2.2. It is envisaged that the proposed development will be constructed within four months maximum.

# 3.0 Planning Authority Decision

# 3.1. Decision

- 3.1.1. On 31<sup>st</sup> October 2023, Waterford County Council issued notification of decision to grant permission subject to 9 conditions.
- 3.1.2. Standard conditions are attached relating to plans and particulars and the carrying out of works and mitigation in accordance with submitted documentation. Conditions are also attached on the duration of the permission; decommissioning; submission of the final CEMP; construction traffic management; archaeology; and development contributions.

# 3.2. Planning Authority Reports

3.2.1. The recommendation to grant permission in the Planner's Report reflects the decision of the Planning Authority. The main points raised under the assessment of the application are summarised as follows:

#### Development Principle

- Subject to EIAR being robust and adequate, it is considered that the current application does not amount to project splitting - a number of consents already exist for the substantive developments, and the various authorities considered that these developments would not result in significant environmental impacts.
- Grid connection is to a substation which has planning permission and there is no record of non-compliance regarding the substation - allegations of unauthorised development relate to a number of turbines being non-compliant, and in any instance, these turbines do not facilitate the current proposal.
- The principle of the proposed development is open to consideration on the basis that the proposed grid connection is to serve a permitted wind farm and having regard to the fact EIAR and NIS have been undertaken.

# EIA

- Previously proposed grid connection route was c.12km to Dungarvan Substation Woodhouse has since been commissioned and the grid connection is now 2km only and largely within existing and consented development sites. There is far less potential for impacts.
- Current proposal benefits from significant engineering and realignment works for delivery of turbines to Woodhouse Windfarm - the only further modifications required are internally. Applicant can reuse haul route previously upgraded by adjoining developer rather than carrying out significant civil works to the east of the site.
- Do nothing alternative is deemed a missed opportunity if current application not progressed. Satisfied that the consideration of alternatives has been adequately addressed in the EIAR.

- Potential impacts in respect of population and human health have been adequately addressed in the EIAR - findings of noise survey, separation distance to closest dwelling, the nature of the proposal, and the short duration of construction works are noted. Satisfied that there would be no significant adverse impacts in terms of population and human health.
- Given the nature of existing habitat, the separation distance to water courses, and subject to implementation of mitigation measures, it is considered that the proposed development would not have any significant adverse direct or indirect effects on biodiversity. Internal referral response from Heritage Officer expresses no objection on the basis of the lower ecological value of habitats such as spoil, bare ground, forestry roads and scrub.
- Agrees with the findings of the EIAR that the impact of the proposed works on the environment in terms of land and soils will be imperceptible.
- Proposal does not provide for any discharges to groundwater, and surface water runoff will be managed by way of mitigation measures. It is considered that the potential impacts in respect of water are not significant and have been adequately addressed in the EIAR. Assessment is presented in the context of the cumulative proposed, permitted and operational developments adjoining the development site.
- It is considered that the potential impacts in respect of air quality have been adequately addressed and the EIAR, that the overall impacts are negligible, and that no significant cumulative impacts are expected - notes the response from the Environment Section that the impacts on air will be imperceptible.
- It is considered that the potential impacts in respect of climate have been adequately addressed in the EIAR - concurs with the findings that the proposed development would result in significant indirect positive impacts on climate.
- Notes that haul route is similar to that for the permitted windfarm and subject to mitigation measures in respect of *inter alia* sequencing/ traffic management, there is no difficulty with the findings regarding impacts on the road network. Assessment is presented in the context of adjoining proposed, permitted and operational developments.

- It is considered that the potential impacts in respect of material assets, including the public road network and built services have been adequately addressed in the EIAR – impacts relating to material assets, including cumulative impacts, would not be significant.
- As there are no designated assets of architectural or cultural heritage significance within the proposed development site, and having assessed potential impacts, mitigation measures, and predicted impacts, it is considered that environmental impacts relating to cultural heritage are not significant.
- Site is located within areas of visually sensitive and visually vulnerable landscape; however, cumulative impacts on landscape/ visual amenity will not be significant.
- Subject to implementation of monitoring and mitigation measures the proposal would not have adverse impacts on the receiving environment. It is not foreseen that any interrelationships would give rise to significant residual negative impacts.
- Mitigation measures set out in the conclusion relating to deployment of Environmental Clerk of Works; management of site drainage and welfare facilities; silt fencing and good construction practice; sequencing of deliveries of abnormal loads; and assimilation into landscape due to limited scale and undergrounding of cable. There will be positive significant impacts on climate through export of renewable energy to the National Grid.
- Considered reasonable to attach a condition relating to duration of permission corresponding to the permitted wind farm to ensure that private development connected to the windfarm would be time limited and subject to restoration, while omitting that portion of the development which will relate to the public transmission network.

# Appropriate Assessment

- Three European sites identified with potential impacts / receptor pathways.
   Mitigation measures in NIS to avoid works during heavy rainfall; manage and control surface water; and prevent spread of invasive species.
- Notes the review by the Heritage Officer regarding the low ecological value of the site, along with no observations of Whooper Swans or birds of medium or high conservation concern relying on the site as non-breeding/ overwintering habitat.

- Reasonable to conclude that the proposed development, individually or in combination with other plans and projects, would not adversely affect the integrity of European sites.
- Development contributions liable for the new control room only.
- Concluded that the proposed development would be in accordance with national and regional policy with regard to wind energy and the facilitation of wind energy projects, would be in accordance with the provisions of the development plan, would not seriously injure the amenities of the area or property in the vicinity, would not give rise to a risk of pollution, and would not be prejudicial to public health and would be acceptable in terms of traffic safety and convenience.
- 3.2.2. Other technical reports were received from the Heritage Officer and Senior Executive Engineer. The Heritage Officer has no objection to the proposed development on the basis of the lower ecological value of habitats along the proposed route, distance from closest water courses, and the scale and short duration of works. A condition is recommended that works be carried out in accordance with the CEMP.
- 3.2.3. The Senior Executive Engineer is in agreement with the findings of the EIAR in relation to noise, dust and air quality. There is no objection subject to conditions.

# 3.3. Prescribed Bodies

3.3.1. No responses.

# 3.4. Third Party Observations

- 3.4.1. A total of 15 valid observations were received by the Planning Authority on the application. The main points raised in these submissions, as summarised in the Planner's Report, are as follows:
  - Inadequate public consultation site notices not erected in townland of Knocknamona/Knocknaglogh;/Barranas;
  - Project splitting application deviates from undertaking given under Judicial Review proceedings. Only options were in the context of the EIS 2015. Any deviation requires a new application for the totality of the development including the windfarm;

- 2 route options for grid connection were identified at Dungarvan current grid connection proposal at Woodhouse was never envisaged or included in the original planning applications for Knocknamona Windfarm;
- Woodhouse is the subject of High Court proceedings in respect of alleged unauthorized development;
- Negative visual impact;
- EIAR fails to address cumulative impacts;
- Adverse impact on amenities of area information inaccurate in relation to habitats and St Declan's Way. Significant risk to Whooper Swan population;
- Concerns regarding scale of permitted windfarm;
- Number of submissions reiterating objections to permitted windfarm;
- Application must be assessed against 4 sets of legal tasks: 1. Planning & Development Act 2000; 2. EIAR regulations; 3. Habitats Directive; 4. Water Framework Directive.

# 4.0 **Planning History**

# Authorised Knocknamona Windfarm

# Waterford County Council Reg. Ref: 14/600109 (PL93.244006)

- 4.1. Permission was sought for 12 wind turbines, one meteorological mast with wind measuring equipment, access roads, electrical substation compound, and equipment and control building at Knocknaglogh Lower, Barranastook Upper, Dungarvan, Co. Waterford.
- 4.2. The Board granted permission in December 2016 for 8 turbines only for a period of 10 years from the date of the order. The maximum tip height of the permitted turbines is 126m.

# Waterford County Council Reg. Ref: 20/845 (ABP-309412-21)

4.3. The Board granted permission on 28<sup>th</sup> September 2022 for amendments to PL93.244006 to include increased turbine tip heights from 126m to 155m and amendment in height and design of the permitted meteorological mast. 4.4. Judicial Review proceedings were taken to challenge this decision and the Court of Appeal referred the question to the CJEU on 5<sup>th</sup> December 2024 on whether valid conservation objectives for a SPA are a pre-requisite to the Board's jurisdiction to carry out a valid appropriate assessment.

# Waterford County Council Reg. Ref: 22/407 (ABP-314219-22)

4.5. The Board granted permission on 7<sup>th</sup> December 2022 for junction and bend widening works comprising road widening and ancillary works to facilitate the delivery of wind turbine blades.

# **Grid Connection**

# Waterford County Council Reg. Ref: 19/369 (ABP-306497-20)

4.6. The Board granted permission for the Knocknamona grid connection in February
 2021. This decision was quashed by Order of the High Court on 20<sup>th</sup> February 2023.

# Woodhouse Windfarm and Substation

# Waterford City and County Council Reg. Ref: 04/1788

4.7. Permission granted for the 8-turbine Woodhouse Windfarm with overall tip heights of 112m.

# Waterford City and County Council Reg. Ref: 10/45

4.8. Permission granted for modifications to the windfarm granted under Reg. Ref: 04/1788 comprising an increase in permitted tower height (70m to 80m) and blade length (42m to 45m); minor re-alignments of internal access tracks; and relocation of four turbines.

# Waterford City and County Council Reg. Ref: 10/175

4.9. Permission granted for extension of duration of permission Reg. Ref: 04/1788 up to 23<sup>rd</sup> May 2015.

# Waterford City and County Council Reg. Ref: 09/642

4.10. Permission granted for a 110kV electrical transformer substation on a site of 3.6 hectares located adjacent to the previously approved windfarm (Reg. Ref: 04/1788).

# Waterford City and County Council Reg. Ref: 11/355

4.11. Permission granted for alterations to the previously permitted Woodhouse Substation.

# 5.0 **Policy Context**

#### 5.1. European Green Deal

- 5.1.1. The European Green Deal is a set of policy initiatives approved in 2020 that pledge to transform the EU into a modern, resource efficient and competitive economy, ensuring:
  - No net emissions of greenhouse gases by 2050;
  - Economic growth decoupled from resource use; and
  - No person and no place left behind.
- 5.1.2. The European Green Deal will improve the well-being and health of citizens and future generations by providing fresh air, clean water, healthy soil and biodiversity; renovated, energy efficient buildings; healthy and affordable food; more public transport; cleaner energy and cutting-edge clean technological innovation; longer lasting products that can be repaired, recycled and re-used; future-proof jobs and skills training for the transition; and globally competitive and resilient industry.

# 5.2. Renewable Energy Directive<sup>1</sup>

5.2.1. The Renewable Energy Directive is a legal framework for the development of clean energy across the EU. Directive EU2018/2001 has been legally binding since June 2021 and this sets an overall European renewable energy target of 32% by 2030. The Commission proposed a revision of this Directive in July 2021 raising the 2030 target to 40%. However, following Russia's invasion of Ukraine, and the need to

<sup>&</sup>lt;sup>1</sup> Directive (EU) 2023 of the European Parliament and of the Council of amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652

accelerate the EU's independence from fossil fuels, it was proposed to raise the target further to 45% by 2030. The European Parliament gave its final approval to the legally binding target on 12<sup>th</sup> September 2023 requiring at least 42.5%, aiming for 45%, of EU energy to be renewable by 2030.

5.2.2. Guidance on Article 20a on sector integration of renewable electricity of Directive (EU) 2018/2001 on the promotion of energy from renewable sources, as amended by Directive (EU) 2023/2413, states that *"there is an urgent need to tackle the remaining barriers that still prevent a massive roll-out of renewable electricity. These include the need for expanding grid capacities at distribution and transmission levels and developing a more flexible and smarter grid infrastructure that can integrate an increased amount of variable renewable electricity, and distributed energy resources such as electric vehicles (EVs), PVs and heat pumps. The EU Action Plan on Grids (13) proposes concrete measures to accelerate investments in deployment and digitalisation of the grids."* 

#### 5.3. National Planning Framework, 2018

- 5.3.1. The National Planning Framework provides policies, actions and investment to deliver 10 National Strategic Outcomes (NSO) and priorities of the National Development Plan. Transitioning to a low carbon and climate resilient society is the main NSO that pertains to the proposed development. It is stated that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system.
- 5.3.2. Chapter 9 of the NPF: Realising Our Sustainable Future recognises the need to accelerate action on climate change for a low carbon energy future. In this regard, National Policy Objective 54 seeks to *"reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions."*
- 5.3.3. The transition to renewable sources of energy is an integral part of Ireland's climate change strategy as a means of reducing reliance on fossil fuels. Reflecting this, National Policy Objective 55 will *"promote renewable energy use and generation at*

appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050."

# 5.4. Climate Action Plan, 2024

- 5.4.1. The Climate Action Plan (CAP24) sets out a roadmap to halve emissions by 2030 and reach net zero by no later than 2050. CAP24 builds upon CAP23 by refining and updating the measures and actions required to deliver carbon budgets and sectoral emissions ceilings that were introduced under the Climate Action and Low Carbon Development (Amendment) Act, 2021. Sector emission ceilings were approved by Government in July 2022 for the electricity, transport, built environment residential, built environment commercial, industry, agricultural and other (F-gases, waste & petroleum refining) sectors. Reflecting the continuing volatility for Land Use, Land Use Change and Forestry (LULUCF) baseline emissions to 2030 and beyond, CAP24 puts in place ambitious activity targets for the sector reflecting an EU-type approach.
- 5.4.2. Citizen engagement and a strengthened social contract between the Government and the Irish people will be required around climate action. It is also recognised that policies on spatial planning, taxation, sustainable finance, and non-financial reporting have a key role to play in supporting and enabling the delivery of emissions reductions across multiple sectors and in mobilising climate finance, facilitating a just transition to a carbon neutral society. A just transition framework structures how we will integrate just transition considerations into our climate action policies, as highlighted by sectoral examples provided throughout this Plan.
- 5.4.3. The electricity sector will help to decarbonise the transport, heating and industry sectors and will face a huge challenge to meet requirements under its own sectoral emissions ceiling. A large-scale deployment of renewables will be critical to decarbonising the power sector, as well as enabling the electrification of other technologies. CAP24 seeks to accelerate the delivery of onshore wind, offshore wind and solar through a competitive framework to reach 80% of electricity demand from renewable energy by 2030.
- 5.4.4. CAP24 details the significant changes required to enhance the electricity grid's capacity and flexibility to accommodate the significant upsurge in renewable energy

while ensuring the system's reliability and efficiency. To reach 80% of electricity demand from renewable sources by 2030, a streamlined electricity generation grid connection policy and process will need to be delivered, and where possible, barriers for the installation of renewables and flexible technologies should be removed and the need to build new grid, including hybrid (wind/solar/ storage) connections reduced.

# 5.5. National Adaption Framework, 2018

- 5.5.1. The Framework was developed under the Climate Action and Low Carbon Development Act, 2015. A number of Government Departments are required under this Framework to prepare sectorial adaptation plans to reduce the vulnerability of the country to the negative effects of climate change and to avail of the positive impacts. The Climate Change Adaptation Plan for Electricity and Gas Networks Sector has been prepared under the National Adaption Framework to identify the potential impacts of climate change on energy infrastructure, assess associated risks and set out an action plan for adapting to those impacts.
- 5.5.2. The Transmission System Operator, EirGrid, and the Distribution System Owner, ESB Networks have identified, categorised, and prioritised risks to the electricity infrastructure.

# 5.6. National Energy and Climate Plan for Ireland, 2021–2030

5.6.1. The plan establishes key measures to address the five dimensions of the EU Energy Union: decarbonisation, energy efficiency, energy security, internal energy markets and research, innovation and competitiveness.

# 5.7. Government Policy Statement on Security of Electricity Supply, November 2021

5.7.1. The policy statement seeks to ensure that the continued security of electricity supply is a priority at national level and within the overarching EU policy framework in which the electricity market operates. Adequate electricity generation capacity, storage, grid infrastructure, interconnection and system services should be put in place to meet demand, including peak periods.

# 5.8. Regional Spatial & Economic Strategy for the Southern Region, 2020

- 5.8.1. This document is a 12-year strategic regional development framework that will facilitate the delivery of the NPF. The Southern Regional Assembly will support the implementation of the Climate Action Plan by prioritising decarbonisation, resource efficiency and climate resilience.
- 5.8.2. The Strategy states that opportunities for both commercial and community wind energy projects should be harnessed. Objective (RPO 99) seeks "...to support the sustainable development of renewable wind energy (on shore and off shore) at appropriate locations and related grid infrastructure in the Region in compliance with national Wind Energy Guidelines."

#### 5.9. Waterford City and County Development Plan 2022-2028

- 5.9.1. The site is zoned Agriculture: To provide for the development of agriculture and to protect and improve rural amenity (A). The Wind Energy Map shows the appeal site located within a "preferred" area.
- 5.9.2. The Renewable Energy Strategy is contained in Appendix 7 of the Development Plan. Renewable Energy objectives are set out in Chapter 6: Utilities Infrastructure, Energy & Communications, as well as Section 5.24 of Volume 2: Development Management Standards (Renewable Energy Developments).
- 5.9.3. It is a strategic objective of the Development Plan as set out in Chapter 6 "to promote and facilitate the provision of energy efficient, low carbon infrastructure and utilities and support infrastructure, whilst supporting industry to innovate, decarbonising the energy sector in order to contribute to a national target of zero net emissions of greenhouse gases in Ireland by 2050."
- 5.9.4. Table 6.3 sets out the 2030 renewable energy targets for the county for on shore wind energy of 211.2 MW. There is 62.87 MW of operational, and 34.85 MW of permitted and undeveloped windfarms in the county, and therefore the shortfall is 113.48MW.
- 5.9.5. The relevant Policy Objectives from the Utility, Energy and Communication Policy Objectives Section are set out in Appendix 1 of this report. A summary of the Renewable Energy Strategy is also included in this appendix.

- 5.9.6. It is stated within the Development Management Standards that the Planning Authority may require that electricity and other cables be placed underground for all or part of their length or be re-routed in order to avoid injury to amenity. It is noted that the destruction of hedgerows and trees has become a feature of cable route maintenance, and this will be discouraged.
- 5.9.7. In terms of Landscape and Seascape Character Assessment the appeal site is within a "Low Sensitive" area, which is a common character type with a potential to absorb a wide range of new developments. There is an area of high sensitivity immediately to the south of the appeal site. There are no protected views in the vicinity or facing the direction of the appeal site.

#### 5.10. Natural Heritage Designations

5.10.1. The table below sets out all the designated sites within 10km of the proposed grid upgrade route:

Site Name	Site Code	Distance (nearest point to proposed development)
Dungarvan Harbour pNHA	000663	6.93km east
River Blackwater and Estuary pNHA	000072	4.4km west
Blackwater River (Cork/Waterford) SAC	002170	2.9km north
Dungarvan Harbour SPA	004032	6.95km east
Blackwater Estuary SPA	004028	8.11km south-west

# 6.0 The Appeal

# 6.1. Grounds of Appeal

6.1.1. Three third party appeals were submitted to the Board against Waterford County Council's decision to grant permission for the proposed development. The grounds of appeal and main points raised in each of these submissions are summarised as follows:

# John & Niamh Reynolds, Kereen, Villierstown

- Grid connection into Woodhouse Substation was never envisaged or included in the original planning applications for the Knocknamona Windfarm - Principle of that application has to be reconsidered, with EIA carried out for the full development. EIAR submitted with the application fails to consider or address the cumulative effects on the appellant.
- Wind farm developers are bound by commitment to connect to the grid via either of the two options into Dungarvan (12.5km or 15km), which are applicable and the only choice for the developer is to proceed on the basis of the original planning permission for the wind farm. The same principle applies in respect of the haul route.
- Not permissible for the proposed grid connection to connect into the Woodhouse Substation in circumstances where the Local Authority is aware that the wind turbines within Woodhouse Windfarm are materially different from the permitted turbines.
- If Woodhouse Windfarm is unauthorised, the only way it can be regularised is by way of an application for retention, but Section 34(12) excludes such an application where there is an EIA requirement.
- Habitats Directive requires consideration not just of the subject matter of the present application but of all projects - cannot be concluded that a Stage 2 Appropriate Assessment is not required for this development.
- Entire development at Woodhouse and Knocknamona windfarms and grid connections has not been considered as one planning application – there has been project splitting. EIA is required to properly assess and identify the effects of this entire development.
- Unauthorised works were carried out in August 2019 by way of widening of forestry roads, both for the link road and the transport of turbine parts and unspecified works within the substation site. Local authority advised that it undertook road widening works as routine maintenance. Road widening

constitutes development under the Planning and Development Act 2000 (as amended) - such development is not exempt where the works are carried out on a site subject to the EIA Directive, as arises here.

#### Moya Power, Ballymullalla, Cappagh

- Re-submission of same application without addressing the fundamental flaws in the EIA and AA of the cumulation of wind farm development in this area, or without addressing the unauthorised nature of previous works at Woodhouse Windfarm and substation undermines the principles of the EIA and AA process and public participation in planning.
- Oral hearing requested because complex issues are raised in respect of the planning application which cannot be addressed solely by way of written submission.
- Linkage to Woodhouse Windfarm creates a single development project with EIA implications in terms of project splitting.
- Woodhouse Windfarm comprises unauthorised development and is subject of High Court proceedings - proposed development would comprise a material extension of unauthorised development.
- In the absence of EIA or AA of the substation and Woodhouse Windfarm, approach fails to comprehensively assess environmental impacts of the whole project as is required under the EIA Directive and the Habitats Directive. Density and height of turbines on the top of Drumhills is likely to impact on qualifying interest bird species.
- Integration of Knocknamona and Woodhouse windfarms and substation as a result of the proposed grid connection, and integral haul route, and use of internal roads connecting the two windfarms, would result in the clustering of single windfarm development in highly sensitive landscape with pathways to the Blackwater River SAC and Dungarvan Harbour SPA.
- Approach avoids proper and full planning process scrutiny resulting in project splitting with minimal communication to local communities.
- Appellant lives within 500m of Woodhouse Windfarm noise levels vary from tolerable to annoying to intrusive levels. Assessment of noise in this application is

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completely unsatisfactory - noise assessment from the grid connection is the only noise assessed and within a limited study area.

- Infrasound needs a lot more understanding before any more people and communities are impacted by it.
- Appellants live with shadow flicker on an ongoing basis before sensors kick in it is very disruptive and impactful.
- There are further overriding reasons why planning permission should be refused, including failure to comply with EIA and Habitats Directives, unauthorised development, and risk to Whooper Swans, Hen Harrier and other protected birds.
- Public notice does not include for a haul route in the application description, and description of the nature and extent of the proposed development is inadequate.
- Agrees with grounds of appeal submitted on behalf of Giancarla and Michael Allen Buckley.

#### Giancarla & Michael Allen Buckley

#### Need for Oral Hearing

 Oral hearing requested because of complex issues raised in respect of the planning application. Decision of the Board to quash its own decision in respect of a previous application for a grid link could most likely have been avoided if the Board had held an oral hearing in that case.

# Breach of Regulations

- Appellant not entirely satisfied that letters of consent have been furnished from all relevant landowners.
- Public notice for the proposed Knocknamona grid connection does not include a proposal for a haul route in the application description. There is reliance on the use of a haul route to Woodhouse Windfarm and Knocknamona Windfarm as already authorised developments although there is no permission in place for either haul route. Haul route works are not exempt and were undertaken without any EIA, AA, WFD assessment or relevant application for planning permission. Plans are inadequate to show the detail of development in accordance with the Regulations.

# No permission for haul route to Knocknamona Windfarm

 In Michael Alen Buckley and Giancarla Alen Buckley v An Bord Pleanála [2017] IEHC 541, Justice Haughton stated that the application for Knocknamona Windfarm did not seek planning permission in respect of the grid connection or haul routes. Judge noted that the Inspector stated that neither the haul route nor the grid connection comprised exempted development.

# No application or EIA for haul route

- Proposed grid connection is reliant upon the Knocknamona Windfarm haul route. The proposed change to route turbine parts through Woodhouse Windfarm materially deviates from the route which was subject to EIA in 2016 – there is no permission for this route.
- Where any requirements of Articles 18 or 19 have not been complied with, or the public notice is misleading or inadequate, the planning application shall be invalid (Southwood Park Residents Association and An Bord Pleanála, HC JR 2019 No. 191 JR).

# Planning Authority decision is flawed

- Planning Authority failed to consider breaches of the Regulations and failed to adequately undertake an EIA of the totality of the development, or properly consider the Habitats Directive or WFD, or the implications of unauthorised development.
- Planning report assumes that previously proposed haul route and grid connection is permitted – they were part of the EIA but not permitted.
- Board quashed its own decision on ABP-306497-20, and in doing so, avoided having to address the substantive issues of the case, which impact the subject development. Application has been resubmitted without addressing the fundamental flaws in the EIA, AA and WFD and the unauthorised nature of previous works at Woodhouse Windfarm.

Planning Authority decision failed to adequately assess cumulative impacts

• Planning application and EIA, AA and WFD assessments must encompass the totality of wind farm development at this location, both Woodhouse and

Knocknamona, because of the previous failures to undertake relevant AA, EIA and WFD assessments - substation link must be properly grounded to include the wind farm development and the various unauthorised haul route and other road works.

- Subject application includes for use of the existing entrance at Woodhouse and the windfarm roads for the haul route for the delivery of the turbines. This similarly differs from the authorised permission whereupon the EIS and EIA were predicated upon a haul route completely independent of Woodhouse.
- WFD assessment states that the status of the downstream waterbodies of the grid connection range from poor to high. WFD requires that water quality is protected and maintained with the aim of achieving good status by 2027 - any new development must ensure that this fundamental requirement of the Directive is not compromised. Previous development failed to undertake such assessment and now there is an obligation to ensure the entirety of the wind farm development is assessed for the purpose of the WFD.
- Planning report and decision fail to acknowledge nature and extent of unauthorised works at Woodhouse substation, on the forestry tracks and on the local road network. Turbine blades at Woodhouse were also erected significantly larger than the permitted (51m instead of 45m).
- Proposed development is reliant upon unauthorised development and the predication of the subject application on such unauthorised development would have necessitated a remedial EIAR and application for substitute consent.

Ad hoc clustering or sporadic wind farm development resulting in project splitting

- In the absence of any national or county wind energy strategy with a spatial dimension, the proposed development would set an undesirable precedent for ad hoc clustering of wind farms in a visually sensitive rural area contrary to Development Plan Policy UTL 12, and premature pending a detailed energy master plan incorporating spatial energy demand and generation analysis.
- There is a need for a proper and full comprehensive EIA of the entirety of the wind farm development at this location Grid connection and integral access and haul

route directly links Knocknamona and Woodhouse windfarms and substation in a high sensitive landscape.

# Further overriding reasons for refusal of permission

 Failure to comply with EIA Directive and Habitats Directive; failure to have sufficient regard to the fact that there was no EIA or AA of the windfarm and substation development at Woodhouse – the fact that it is operational does not absolve it from the need for EIA or AA where there was no prior compliance; failure to have regard to the unauthorised nature of development at Woodhouse Windfarm and substation; and the risk to whooper swan and hen harrier and other protected bird species.

# Development linking both windfarms creating a single development

- If applicant wants to proceed on the basis of the extant 2016 planning permission, the only application they can make for a grid connection is in relation to one of the two options shown in the 2015 EIS.
- Two windfarms are proposed to link physically through the link road and by reason of the connection to Woodhouse Substation grid connection, and would therefore operate as a single energy project.
- Site layout plan shows both Knocknamona and Woodhouse windfarms under the one landowner's control.
- There is a need for site notices to be erected at the public road adjacent to the proposed Knocknamona site entrance.
- Link road and widening of forestry road do not appear to incorporate any drainage save for 1% gradient to allow run off.
- If Woodhouse Windfarm is determined as comprising unauthorised development, then the proposed development would comprise an extension to unauthorised development.

Knocknamona permission integral with EIA at the time and dependent on alterative grid connection and haul route

• As above.

- Any deviation from previous EIA necessitates a fresh planning application and assessment of the totality of the development from first principles.
- If the third option of connecting to Woodhouse substation had been openly
  proposed at the time, then it would have been clear that the application amounted
  to project splitting.
- Entirety of windfarm development at Woodhouse/ Knocknamona must now be the subject of the planning application or the application be dismissed on the basis that the development amounts to substantive project splitting.

# Woodhouse windfarm the subject of High Court proceedings

- Turbines T1, T2, T6, T7 and T8 have all been constructed with a blade length of about 50m there is no development consent for these turbines.
- There are substantial grounds that the proposed development would comprise an extension to an unauthorised development - Board would be precluded from granting permission to the Knocknamona application.

# Habitats and Appropriate Assessment

- AA and AA Screening are limited by the screening out of the Woodhouse Windfarm and substation, which forms an integral part of the development proposal.
- Applicant is not relieved from compliance with the Habitats Directive on the basis that the Woodhouse Windfarm and substation is operational given the direct linkage and integral nature of the proposed development with that windfarm.
- Blackwater Callows is host to the Whooper swan and there is the possibility of bird flight paths through the site. Freshwater pearl mussel and white clawed crayfish are QI species for the Blackwater River SAC.

# Failure to comply with EIA Directive and cumulative impacts

- Appears that the Planning Authority assessed potential cumulative impacts based on the potential impacts of the grid connection as assessed in respect of PL93.244006 instead of carrying out a new and current assessment.
- EIS for Knocknamona was carried out in 2014-2016 and therefore the assessment was carried out based on old data.

- Applicant has entirely misunderstood and mischaracterised cumulative impact both in terms of EIAR and AA Screening – development impacts have been disaggregated rather than looking at the combined cumulative impacts of the totality of development.
- Original grid connection by Ecopower was for 34MW, which shows evidence of future potential cumulative impact from further development on this vulnerable ridgeline.

# EIAR deficiencies show failure to comply with EIA Directive

- Screening scoping applicant merely accepts Woodhouse as a given baseline without consideration of the pre-planning greenfield baseline conditions.
- Lyrecarrigia Windfarm and Scart Mountain Windfarm should not have been scoped out at screening stage for consideration of cumulative effects.
- Screening of the project is undertaken in isolation from its role and integration as part of a much bigger windfarm cluster at Woodhouse / Knocknamona.
- Subject application would preclude the implementation of the mitigation measures and planning conditions imposed by the 2016 Board Order to grant permission, which are based on an entirely different grid connection and haul route.
- EIAR did not carry out a new evaluation of Knocknamona Windfarm relied on previous EIS for a different grid route and haul route and which did not interconnect the windfarms.
- Consideration of alternatives no account taken of the question mark over the unauthorised status of Woodhouse substation and works to the haul route for Woodhouse Windfarm.
- True impact is the comparison with the baseline conditions prior to commencement of construction of Woodhouse Windfarm, as these works were never subject of an EIA or AA screening and were only included in the management plan for construction works.
- *Population and Human Health* no assessment of impacts on residential population amenities and health arising from Woodhouse and Knocknamona.

Study area restricted to grid connection. Totality of development stretches for 3.5km east-west and 2.2km north-south.

- Impact on health due to changes in ambient noise and vibration is given as no potential for cumulative impacts – demonstrates failure to consider the totality of the development.
- Residential amenity residents in the vicinity have filed a nuisance action in the High Court. Proposal would exacerbate existing impacts.
- Bird surveys Studies are too limited to capture potential for cross flight of birds from surrounding designated sites. Flight path of Whooper Swan is directly over the wind turbines and surveys are inadequate. Flight of Hen Harrier passes directly over the substation in the vicinity of the link road.
- *Surface water* There is a pathway from the substation to the drainage catchment and the potential for adverse impacts on the Blackwater SAC cannot be ruled out.
- *Water and habitats* potential impact of Woodhouse Substation and windfarm on wetland of biodiversity importance WD284 has not been assessed.
- Works on site give rise to a risk that silt run off, sediment or cement could enter the drainage catchment and find their way to the Blackwater SAC, which is host to pearl mussel.
- No assessment of impact from Woodhouse Windfarm and the fact that this windfarm is operational does not relieve the applicant of the obligation to review the cumulative impact arising.
- Study area for assessment of impact on groundwater is limited solely to within 300m from the construction boundary of the grid connection.
- Noise noise assessment from grid connection is the only noise assessment and within a very limited study area. Operation noise from Woodhouse Windfarm is excluded and there is no consideration in the EIAR of the Knocknamona Windfarm on the basis that noise related impacts were previously assessed by the Board as not significant.

- Empirical operation of the windfarm has given rise to significant noise impacts on surrounding residents in terms of amplitude modulation impacting their health and their sleep pattern and general wellbeing.
- Landscape and visual impact assessment similarly discounts the visual impacts of the proposed development and the cumulative impact on the basis of the established Woodhouse Windfarm and substation.
- Assessment fails to evaluate the impact of the substation on the landscape inclusion of additional building within the site further exacerbates the adverse landscape impacts.
- Catchment study area indicated in the landscape and visual assessment is totally inadequate and fails to recognise or address the fundamental issue arising from the linkage of the two wind farms.
- If Woodhouse is found to be unauthorised in the courts, then the creation of a single linked development project is problematic, as it would exacerbate an existing unauthorised development.
- EIAR Conclusion EIAR is defective as a screening scoping, study area catchment and overall assessment fails to adequately describe, identify and assess the full extent of environmental impacts and cumulative impact of the totality of development.

# Development Plan Policy and Objectives

- There is an inherent conflict between the agricultural zoning, the heritage, environmental and landscape objectives, and the identification of the subject lands as a strategic area in the context of the County Wind Energy Strategy.
- Conflict between two objectives does not allow a decision maker to contravene one of the objectives and to dismiss that contravention as immaterial.
- Objective UTL 12 of the Development Plan identifies a need for spatial energy demand analysis, i.e., the spatial location of energy supply should relate to evidence of energy demand.

# 6.2. Applicant Response

6.2.1. The applicant responded to the third party appeals as follows:

#### Response to Allen-Buckley Submission

- *Oral hearing* application is not complex and represents a very straightforward connection method to the National Grid for wind farm development.
- Quashing of previous grid connection application (ABP-306497-20) was not informed by the issues arising during appeal which, it should be noted, was granted by the local authority and the Board.
- Breach of Planning and Development Regulations letters of consent cover the entire lands subject to the application, and application was validated by the local authority on that basis.
- No works required on the haul route, and as such, details would not normally be required on the public notices.
- Haul route for all equipment to the Woodhouse Windfarm was agreed with the Local Authority prior to construction in 2014 – this haul route is now proposed for some of the Knocknamona Windfarm components. Appellant's assertion regarding the validity of works carried out on the public road for the Woodhouse Windfarm is irrelevant as works were completed in 2015, prior to commissioning of that windfarm, and no additional public road works are required.
- Section drawing of proposed link road was submitted with the current application and this drawing is adequate to show the detail of the proposed development.
- Minor works required at some points along the Knocknamona Windfarm route were authorised under ABP-314219-22.
- No permission for haul route to Knocknamona Windfarm was assessed in 2015 revised EIS and, as amended under ABP-314219-22.
- No application or EIA for haul route alternative haul route now proposed for grid connection has been assessed cumulatively with the previously authorised Knocknamona Windfarm. No works required for alternative route through Woodhouse Windfarm entrance and access road, but route is assessed in the subject application EIA and AA.

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ABP-318545-23
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- *Planning decision is flawed* appellant's assertion is non-specific. Previous grid connection application is not relevant here.
- Planning Authority decision failed to adequately assess cumulative impacts cumulative assessment carried out in accordance with EIA and Habitats Directives. Baseline is that of the established development, operational for 8 years. Evaluated that there are no likely significant interactions between the Woodhouse projects and the proposed grid connection on any of the environmental topics because Woodhouse projects are already constructed and operational. Cumulative evaluations are no potential (noise), neutral (cultural heritage setting), and imperceptible (landscape).
- Proposed grid connection, when considered alone or in-combination, will not give rise to adverse impacts on the integrity of any European Site.
- Grid connection is discussed and evaluated in EIAR as part of the whole Knocknamona Windfarm project, and cumulatively with Woodhouse Windfarm and substation.
- No potential for cumulative impacts on water due to the small scale of the grid connection, which is spread out over several river sub-basins and across groundwater bodies. Summary conclusion of the WFD assessment submitted with the application that the proposed development will not compromise the achievement of WFD objectives for any waterbody, is valid.
- No unauthorised works have been carried out by the applicant at Woodhouse Substation, on the forestry tracks, or on the local road network.
- Woodhouse Substation is already a node on the transmission network and the grid connection will not change this.
- Application for Knocknamona Windfarm in 2013 did not include the grid connection, but a likely grid connection point in Dungarvan was assessed in the EIS. The now proposed grid connection is a better alternative when a comparison of environmental effects is considered.
- EIAR concluded that the haul route through Knocknamona Windfarm will be used for construction materials and some turbine components, and the alternative route through Woodhouse Windfarm was chosen as the predominant turbine

component and grid connection electrical equipment haul route, when a comparison of environmental effects was carried out.

- Ad hoc clustering of sporadic wind farm development resulting in project splitting principle of development of Woodhouse Windfarm and Knocknamona Windfarm has already been established by planning consent.
- Knocknamona Windfarm is located within the most favourable zone for wind farm development in the county within previous and current development plans.
   Subject development is within a 'low sensitive' scenic classification.
- Not clear to the applicant how a grid connection development would hinder any assessment of spatial energy demand and generation analysis.
- There is no intention to avoid EIA evident throughout the whole Knocknamona Windfarm project process. EIAR includes an assessment of cumulative effects.
- Further reasons to refuse Existing Woodhouse Windfarm does not need to be part of the current application because it is already constructed and forms part of the existing baseline. No works are proposed to existing entrance or internal roads.
- Allegations of unauthorised development at Woodhouse Windfarm relate to a number of turbines being non-compliant – Woodhouse turbines do not facilitate the proposed grid connection.
- There is no potential for risk to avian species from the proposed underground cabling and additional apparatus in an existing substation compound.
- Appeal submission summary The issue is whether the purpose of the EIA Directive is met and that projects likely to have significant effects on the receiving environment are made subject to a requirement for EIA.
- Appellant suggests that permission for development requiring EIA cannot be revised without revisiting the whole development/ principle of development. Class 13 of Part 2 of the Fifth Schedule of the Regulations expressly anticipates and provides for such applications.

- Current application ought to be the subject to EIA so that a cumulative assessment of the impact of the grid connection application with the previously authorised Knocknamona Windfarm can be assessed.
- At the time of the 2015 EIS, the grid connection method for Knocknamona Windfarm issued by ESB Networks was to connect Dungarvan Substation
- It was only upon receipt of confirmation from EirGrid in 2017 that an application to modify the grid connection agreement to connect to Woodhouse Substation instead of Dungarvan Substation, could have been investigated by the applicant.
- Windfarm is authorised and predicted noise from the windfarm itself and cumulatively with Woodhouse Windfarm was deemed not to be significant by the authorising body.
- More comprehensive noise limits associated with 'Area of Low Background Noise' have been applied to all 17 dwellings in the study area. At all locations, the predicted substation noise emissions are below any of the EPA noise limit criteria for licenced sites. Cumulative operational noise is at least 10dB(A) below the allowable noise limit for the authorised Knocknamona Windfarm.
- 2023 Appropriate Assessment Report assesses the implications of the grid connection individually and in combination with the whole Knocknamona Windfarm project, and the Woodhouse Windfarm and Woodhouse Substation.
- Knocknamona Windfarm and Woodhouse Windfarm are separate legal entities connecting to the same grid node, and will be metered separately and will operate completely independent of each other. Interactions do not create a single entity.
- Landowner consent is delineated as land under control of the applicant, i.e. blue line boundary. This does not negate the ownership or use of lands by others and to state that the windfarms are now under one landowner's control is a misunderstanding of the purpose and meaning of the blue line boundary in the planning process.
- Waterford County Council considered that the site notices were clearly displayed and clearly worded on the date of site inspection, and the application was validated on that basis.

- Failure to comply with EIA Directive and cumulative impact In the EIAR, passage
  of time was considered for each environmental factor to determine whether there
  have been any relevant or material changes in the baseline environment. Any
  new impact pathway was examined for Knocknamona Windfarm also, so that the
  cumulative whole project impact with the grid connection could be determined for
  this new impact.
- There can be no doubt about the scale and nature of the whole Knocknamona Windfarm project on reading of the EIAR. Cumulative impact of the proposed development with all other projects is described in every topic chapter.
- *EIAR deficiencies show failure of compliance with EIA Directive* EIA Directive describes the baseline scenario as the current state of the environment.
- Proposed grid connection has demonstrably no cumulative effects and actually mitigates the effects of the previously proposed grid route and haul route.
- Appellant is endeavouring to halt unauthorised development by seeking to quash the permission for facilitating development.
- There is no potential for noise, shadow flicker and visual impacts to seriously injure the amenity of properties in the vicinity.
- In terms of bird surveys, the appellant speaks only of the perceived negative effects of the operational and authorised windfarms.
- Appellant's statement that the proposed development presents risk from damage to the Blackwater River SAC is not substantiated. Risk to designated sites from drainage pathway links is assessed in the EIAR.
- Noise from Woodhouse Windfarm is not relevant in the context of no cumulative impact from the grid connection.
- Appeal submission concentrates on landscape and visual impacts of existing Woodhouse Windfarm, Woodhouse Substation and the additional effects expected from Knocknamona Windfarm – this is again an attempt to hinder the development of the authorised Knocknamona Windfarm.
- Development Plan policy and objectives applicant does not accept that there is any contradiction between the proposed development and the Waterford City &

County Development Plan. Council considers that the principle of the proposed development is open to consideration.

- Concluding statement Applicant contends that appeal submission concentrates almost exclusively on the perceived adverse effects of the existing Woodhouse Windfarm and the supposed cumulative effects when Knocknamona Windfarm is operational.
- Appeal is an attempt to prevent the construction of a previously authorised wind farm, through the quashing of the grant of development, which is necessary to facilitate the operation of the wind farm. This is not a valid approach to effecting proper planning and sustainable development.

#### Response to Appeal from Moya Power

- Background context Refers to Planner's Report which states that "...subject to the current EIAR being robust and adequate same is considered not to be project splitting..." and that "... a number of consents already exist for the substantive developments and in providing those consents the various authorities considered the developments granted to date would not result in significant environmental impact."
- Oral Hearing as above.
- Link to Woodhouse Windfarm as above.
- Ad hoc clustering as above.
- Impact of single development project encompassing two windfarms on residents There is no direct impact on residential amenity from the proposed grid connection.
- Predicted cumulative noise at appellant's residence was examined in EIAR for larger turbines in 2021 and never exceeds 42.6 dB(A), which is below the limit of 43 dB(A) set by the planning authority.
- Knocknamona Windfarm noise effect alone is 12.4 dB(A) lower than the cumulative noise levels from both wind farms - therefore, there is a negligible increase in noise at the appellant's residence due to Knocknamona Windfarm.

- There is no shadow flicker from the proposed grid connection and therefore no potential for cumulative impacts. Appellant's residence is greater than 10 rotor diameters from the Knocknamona turbines, and in any case, turbines will be fitted with a shadow flicker control module.
- Further overriding reasons and concluding statement as above.

# Response to Appeal from John & Niamh Reynolds

- No potential for direct impacts on appellants' residential amenity from the proposed development, or cumulative impacts with Knocknamona and Woodhouse Windfarms.
- Stage 2 Appropriate Assessment was carried out by the Planning Authority which concluded that the proposed development, individually or in combination with other plans and projects, would not adversely affect the integrity of European sites.
- No works on forestry tracks or local road network relative to proposed development, whether authorised or unauthorised, have been carried out by the applicant.
- Widening between T3 and T4 relates to forestry roads and not a public road, and as such would not be in the remit of the local authority. Photos submitted by appellant have no locational context.

# 7.0 Assessment

7.1. 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 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.
# 8.0 Planning Assessment

- 8.1. I refer to the Planning History section above which includes details of the 8-turbine operational Woodhouse Windfarm and Woodhouse Substation, together with the permitted, but not yet constructed Knocknamona Windfarm. The current proposal seeks to connect Knocknamona Windfarm to the national grid via Woodhouse Substation. The Board should also note that this appeal relates to what is essentially a repeat application for a grid connection that was granted permission by the Planning Authority and upheld by the Board, (ABP-306497-20). However, the Board decision was quashed by Order of the High Court on 20<sup>th</sup> February 2023<sup>2</sup>. The Board decided not to oppose the challenge to its decision on the basis that the Board meeting held on 22<sup>nd</sup> April 2020, at which the Board decided whether an oral hearing should be held, did not have the requisite quorum.
- 8.2. Having regard to the above, and in view of national, regional and local policy guidance, and the submissions/ observations received, I consider that the main issues to be addressed in this case are as follows:
  - Policy context/ principle
  - Main Issues raised in submissions
  - Other issues raised in submissions
  - Environmental Impact Assessment
  - Appropriate Assessment
  - Overall Conclusion

# 8.3. Policy Context/ Principle

8.3.1. The Climate Action Plan (CAP24) sets out a roadmap to halve emissions by 2030 and reach net zero by no later than 2050. CAP24 builds upon CAP23 by refining and updating the measures and actions required to deliver carbon budgets and sectoral emissions ceilings that were introduced under the Climate Action and Low Carbon Development (Amendment) Act, 2021. Sector emission ceilings were

<sup>&</sup>lt;sup>2</sup> Reynolds & Ors v An Bord Pleanála High Court Record Number 2021 302 JR

approved by Government in July 2022 for sectors including electricity, transport, built environment – residential, built environment – commercial, industry, and agricultural.

- 8.3.2. The electricity sector will help to decarbonise the transport, heating and industry sectors and will face a huge challenge to meet requirements under its own sectoral emissions ceiling. A large-scale deployment of renewables will be critical to decarbonising the power sector and CAP24 builds on CAP23 by seeking to increase renewable generation to supply 80% of demand by 2030 through the accelerated expansion of onshore wind and solar energy generation, developing offshore renewable generation, and delivering additional grid infrastructure.
- 8.3.3. The proposed grid connection for the authorised windfarm, facilitating the export of electricity to the National Grid at the nearby Woodhouse Substation, complies with the overarching aim of CAP24 of tackling climate breakdown by reducing greenhouse gas emissions and by contributing towards the target of having up to 80% of electricity coming from renewable sources by 2030.
- 8.3.4. The National Planning Framework provides policies, actions and investment to deliver 10 National Strategic Outcomes and priorities of the National Development Plan. These include compact growth, support and strengthening of the economy, transitioning to a low carbon and climate resilient society, the sustainable growth of settlements, and the management of environmental resources.
- 8.3.5. National Strategic Outcome 8: 'Transition to a Low Carbon and Climate Resilient Society' notes that new energy systems and transmission grids will be necessary to enable a more distributed energy generation system connecting established and emerging energy sources to the major sources of demand. In this regard, NSO 8 aims to *"reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres"*. National Policy Objective 55 will also seek to *"promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050."* The proposal will therefore comply with the NPF by helping with the transition to a low carbon energy future, by reducing reliance of fossil fuels and assisting with the achievement of climate action targets.

- 8.3.6. At a regional level, the Regional Spatial & Economic Strategy for the Southern Region, 2020 supports the delivery of the NPF and implementation of the Climate Action Plan. Objective (RPO 99) seeks "...to support the sustainable development of renewable wind energy (on shore and offshore) at appropriate locations and related grid infrastructure in the Region in compliance with national Wind Energy Guidelines."
- 8.3.7. At a local level, it is a strategic objective of Waterford City & County Council "to promote and facilitate the provision of energy efficient, low carbon infrastructure and utilities and support infrastructure, whilst supporting industry to innovate, decarbonising the energy sector in order to contribute to a national target of zero net emissions of greenhouse gases in Ireland by 2050." Renewable energy targets for Co. Waterford are set out in the Development Plan of an additional 113.48MW of onshore wind energy production by 2030. The proposed development will facilitate the connection of an authorised windfarm to the grid, thereby potentially enabling up to 36MW of renewable energy production.
- 8.3.8. It should also be noted that both the authorised windfarm and proposed grid connection are in an area "preferred" for wind energy development as illustrated in the Council's Wind Energy Map, and in a "low sensitive" area as designated in the Landscape and Seascape Character Assessment. Policy Objective UTL 13 seeks to encourage and facilitate proposals for renewable energy generation, transmission and distribution and ancillary support infrastructure facilities in accordance with the Waterford Renewable Energy Strategy, the wind energy designation map, and the Waterford Landscape and Seascape Character.
- 8.3.9. The Planning Authority encourages the placement of electricity and other cables underground for all or part of their length or be re-routed in order to avoid injury to amenity. The destruction of hedgerow and trees is also discouraged. In addition, it is stated under Policy Objective UTL 13 that existing infrastructural assets such as sub-stations, power lines and roads should be considered for sustainable use by the proposed development where the assets have capacity to absorb the new development. The proposed grid connection, for the most part, utilises existing access roads and will be laid underground. Impact on hedgerow and trees will therefore be kept to a minimum. The alternative grid connection to Dungarvan Substation assessed at the time of the windfarm planning application would give rise

to greater environmental effects owing to the distance involved (up to 14km in length). The current proposal is less disruptive and better utilises existing infrastructure in closer proximity and is therefore in accordance with the aims of Policy Objective UTL 13.

8.3.10. Overall, I consider that the proposed grid connection enabling the development of the authorised Knocknamona Windfarm is acceptable in principle and follows the consistent message within all levels of policy that there must be a transition to a low carbon and climate resilient society. Moreover, the proposal is essential for achieving the renewable energy targets for the county as set out in the current Waterford City and County Development Plan. I am therefore satisfied that the proposed development is in accordance with the policy objectives set out in various plans and documentation referred to above, and subject to the following assessment.

### 8.4. Main Issues Raised in Submissions

8.4.1. The Board received a total of three third party appeals against the Council's notification of decision to grant permission for the proposed grid connection. Many of the appeal grounds are addressed in the Environmental Impact Assessment and Appropriate Assessment below. The main points raised in submissions relate to project splitting and the assertion that EIA should be carried out for the full windfarm development from first principles. In addition, it is submitted that the proposal would be impacted by alleged unauthorised development at Woodhouse Windfarm.

### Project Splitting

8.4.2. A number of interrelated concerns have been highlighted in submissions with respect to project splitting. As noted above, it was originally intended to connect Knocknamona Windfarm to Dungarvan Substation, and two alternative routes were assessed within the Environmental Impact Assessment and Appropriate Assessment at that time for the parent planning application. The previously assessed connection method and route involved a grid connection route of at least 11.5km, primarily along the public road network. The current proposal to connect to Woodhouse Substation would be significantly shorter, (c. 1.6km north-west of Knocknamona Windfarm Substation).

- 8.4.3. The haul route for construction materials for Knocknamona Windfarm was previously proposed from two quarries to the northwest of the site at Keereen, Aglish and Roadstone Cappagh. Routes to/from both these quarries would have been via the N72 and Dungarvan bypass, with the inbound route using the local road past Glenbeg National School, and the outbound return route via Pulla Crossroads and the N25. The current proposal for the link road between the existing Woodhouse Windfarm and the authorised Knocknamona Windfarm would allow the existing road network within the Woodhouse Windfarm for delivery of abnormal loads to the site. Access from the main road network would be via the N72, R671 and the local road from Clogh Crossroads. Remedial work along this route has already been carried out in 2015 to facilitate the delivery of Woodhouse Windfarm turbine components. The haul route through the authorised Knocknamona Windfarm entrance to the south-east will remain the route for construction materials and some turbine component deliveries, and the haul route through Woodhouse Windfarm is the preferred turbine component haul route.
- 8.4.4. The argument put forward in submissions is that the proposed link road between the existing Woodhouse Windfarm and the authorised Knocknamona Windfarm, together with the grid connection via Woodhouse Substation, would have the effect of creating a single energy project, with EIA implications in terms of project splitting. Moreover, it is considered that planning application and EIA, AA and WFD assessments should encompass the totality of wind farm development at this location, both Woodhouse and Knocknamona, because of the previous failures to undertake relevant AA, EIA and WFD assessments. It is further contended that the subject application would preclude the implementation of the mitigation measures and planning conditions imposed by the 2016 Board Order to grant permission, which are based on an entirely different grid connection and haul route. It is therefore concluded that the EIAR fails to adequately describe, identify and assess the full extent of environmental impacts and cumulative impact of the totality of development.
- 8.4.5. In response to the allegations of project splitting, the applicant asserts that the **EIAR** for the proposed grid connection includes an assessment of cumulative effects, and the Appropriate Assessment Report assesses the implications of the grid connection individually and in combination with the whole Knocknamona Windfarm project, and

the Woodhouse Windfarm and Woodhouse Substation. In addition, the passage of time was considered for each environmental factor within the EIAR to determine whether there have been any relevant or material changes in the baseline environment. The applicant submits that Knocknamona Windfarm and Woodhouse Windfarm are separate legal entities connecting to the same grid node, and will be metered separately, operating completely independent of each other, and that the proposed interactions between the two windfarms do not create a single entity.

- 8.4.6. The report of the Planning Authority notes that project splitting would occur if elements of a Schedule 5 development were set aside as part of an EIA development or covered by a permission which was not subject to EIA. However, it is considered that the current application is accompanied by an EIAR, which seeks to examine the proposed modifications and any potential environmental impacts in the context of the existing Woodhouse Substation, the adjoining existing Woodhouse Windfarm and the permitted Knocknamona Windfarm Development. Subject to the EIAR being robust and adequate, the report of the Planning Authority considers that the proposal does not represent project splitting. Consents already exist for the substantive developments and in providing those consents, the various authorities considered the developments granted to date would not result in significant environmental impacts.
- 8.4.7. In deciding if project splitting has occurred, I consider it important to refer to judicial review cases subsequent to the O'Grianna judgement which confirmed that the law does not require planning permission for all integral parts of a large project to be obtained at the same time, or as part of a single application to one consenting authority. Within North Kerry Wind Turbine Awareness Group v An Bord Pleanála (2017) IEHC 126, it was held that *"there is no necessity that a grid connection must be included in the planning application for the purpose of seeking consent in order for an E.I.A. to be carried out; rather, the EIA requires information on the grid connection to enable a full EIA to be carried out and for the Board to assess the likely significant impact on the wind farm and grid connection as a whole." In Alen-Buckley v An Bord Pleanála [2017] IEHC 541, the High Court stated: <i>"Insofar as the argument is advanced that the Developer was not entitled to lodge separate planning applications for the main development and the grid connection, it is clear that such an argument is unsustainable in the light of the dictum of Peart J. in O'Grianna and*

the stream of case law which has been generated since that decision. It will be recalled that in O'Grianna, Peart J. stated at para 27: "In that way, the connection to the national grid is fundamental to the entire project, and in principle at least, the cumulative effect of both must be assessed in order to comply with the Directive."

- 8.4.8. As there is no requirement that planning permission must be obtained for all elements of the project at the same time, it therefore follows that individual and indeed cumulative assessments for different elements of an overall project may be carried out at different times. It may be the case that complete information relating to the impact of the finalised proposal is not fully available at the inception of the project or upon completion of its first part. Larger plans and projects in particular can develop and change over time, and it may not necessarily be possible to predict the final make up at an early stage of a large project that is broken down into separate elements. What is important, in my opinion, is for the cumulative impact of an entire project, as envisaged at the time of assessment, to be carried out as accurately and robustly, and as up to date as possible. This includes an assessment of the passage of time pertaining to the surveys and analysis, and an update of baseline information between each of the project elements that are taking place over time.
- 8.4.9. Overall, I accept that whilst the current proposal may contain substantial information concerning grid connection, cable routes and associated works that were outside the scope of assessment for the original windfarm application, I would nonetheless be satisfied that there is sufficient information on file for the Board to fully assess the cumulative impacts and in-combination effects of the grid connection, the authorised Knocknamona Windfarm, the constructed Woodhouse Windfarm and Substation and any other relevant plans or projects.
- 8.4.10. In my opinion, the other interrelated arguments pertaining to project splitting in terms of environmental factors could be considered moot, provided that the proposed grid connection is properly assessed both cumulatively and individually in the EIA context. Section 9.13 below sets out the cumulative assessment for the proposed grid connection, the authorised Knocknamona Windfarm, Woodhouse Windfarm and Woodhouse Substation for each environmental factor, taking into account the effects of passage of time since previous assessments. A total of 44 other projects within 17km of the proposed development were identified and scoped out for potential cumulative effects, mainly due to the separation distances and the small scale of the

proposed grid connection works during the construction phase. Subject to proper implementation of mitigation measures, there are no significant cumulative impacts on any environmental factor, apart from the beneficial impact of the proposed grid connection facilitating an increase in renewable energy generation and offsetting electricity generation by fossil fuels.

- 8.4.11. Having regard to the above, I am satisfied that the applicant has considered the impact of the proposed grid connection cumulatively with the authorised Knocknamona Windfarm, Woodhouse Windfarm and Woodhouse Substation. The authorised windfarm has been fully assessed and permitted by the Board, and I do not consider that the applicant should be required to carry out a full EIAR for this element of the development from first principles or to reassess the consented development in its own right. Competent experts have reviewed the previous assessments, and this information has been updated and incorporated into the current EIAR. I am therefore satisfied that sufficient information has been acquired to fully inform the cumulative assessment of the proposed development with other relevant plans and projects.
  - 8.4.12. In deciding whether the proposed development, by itself or in combination with other plans or projects, would adversely affect the integrity of any European Site, in view of the sites' Conservation Objectives, I refer to the Appropriate Assessment in Section 10. It should be noted that that the previous grid connection application (ABP-306497-20) was screened out for Stage 2 Appropriate Assessment. A NIS accompanies the current applicant. Following screening for Appropriate Assessment, it was concluded that the proposed development may result in significant effects on River Blackwater (Cork/ Waterford) SAC, Blackwater Estuary SPA and Waterford Harbour SPA. However, following Stage 2: Appropriate Assessment, it was concluded that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of these European sites, or any other European site, in view of the sites' Conservation Objectives. This conclusion is based on *inter alia*, detailed assessment of in combination effects with other plans and projects including historical projects, current proposals and future plans.
  - 8.4.13. For the Blackwater (Cork/ Waterford) SAC, the Blackwater Estuary SPA and the Dungarvan Harbour SPA, it is concluded that there is potential for adverse in-

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combination effects from water contamination and spread of invasive species, but these effects can be prevented by mitigation measures ensuring the protection of downstream watercourses that drain to the River Blackwater. It is also noted that a suite of water quality protection measures form part of the authorised Knocknamona Windfarm development. In this regard, I note the appellant's concerns that there is a likelihood that the Knocknarnona Windfarm will be constructed at the same time as the Knocknamona grid connection, and therefore the siteworks and drainage risks to European Sites are likely to be cumulative. I agree that some cumulative impact in terms of water quality may occur during construction works; however, it has been clearly demonstrated that the cumulative risks are not significant. Indeed, the environmental risks associated with the grid connection now proposed are less than the grid connection options originally assessed. With respect to the applicant's assertion that the applicant cannot rely on previous assessments carried out for the original wind farm developments, it should be noted that the current assessment addresses the passage of time and any additional impact that may have occurred. In my opinion, this provides a full picture of the nature of impacts.

- 8.4.14. The current planning application is accompanied by a **Water Framework Directive** Assessment Report. Appellants submit that a Water Framework Directive (WFD) assessment was not carried out for previous developments and now there is an obligation to ensure the entirety of the wind farm development is assessed for the purpose of the WFD. In response, the applicant submits that there is no potential for impacts on water due to the small scale of the grid connection, which is spread out over several river sub-basins and across groundwater bodies.
- 8.4.15. The WFD Assessment finds that the pre-mitigation effect on local river waterbodies from the proposed development is of temporary slight significance and there will no potential to negatively affect the current status of any downstream waterbody arising from the proposed grid connection. Similarly, the pre-mitigation effect on local groundwater bodies will be imperceptible and there will be no potential to negatively affect the current status of any local groundwater body. Any surface water run-off from the proposed grid connection site will make its way to the closest downslope river waterbodies via dispersed overland flow and shallow groundwater flow, and both these flowpaths have a natural buffering capacity to attenuate surface water runoff before reaching downslope river waterbodies. Therefore, the proposed

development has no potential to significantly affect water quality within any downstream designated site, even in an unmitigated scenario.

- 8.4.16. Regardless of the pre-mitigation effect of imperceptible to slight, mitigation measures are nonetheless proposed in relation to suspended solids entrainment in surface water, oils and fuels and cements. Subject to implementation of these measures, the proposed development will not have the potential to affect the WFD status of any waterbody during construction works. These measures can also be applied during operational and decommissioning phases; however, the potential impacts would be significantly less than the construction phase.
- 8.4.17. The WFD Assessment identified a total of 13 waterbodies in the vicinity and downstream of the proposed grid connection. These same waterbodies are also downstream of Knocknamona Windfarm and Woodhouse Windfarm and Substation. Woodhouse Windfarm and Substation are complete and operational and will not therefore give rise to any construction related impacts on downstream waterbodies, and as noted above, the potential for impacts on downstream WFD status is confined mainly to the construction phase.
- 8.4.18. There is a likelihood that the proposed grid connection and the authorised Knocknamona Windfarm will be constructed at the same time. The WFD Assessment does not provide an in-combination assessment for the proposed grid connection and the authorised Knocknamona Windfarm, and in my opinion, there is no obligation under current legislation for the applicant to provide such an incombination WFD assessment.
- 8.4.19. Notwithstanding this, it has been demonstrated that the pre-mitigation impact of the proposed grid connection will be imperceptible to slight, and these impacts will be reduced further following mitigation. I also note that the Board as competent authority for the purposes of EIA have previously assessed that Knocknamona Windfarm would not have significant environmental impacts under the heading of water. Similarly, Waterford City and County Council as competent authority for EIA determined that the Woodhouse Windfarm would not give rise to significant environmental impacts under the above, I do not consider that any significant cumulative impacts when assessed in conjunction with other permitted plans and projects including Knocknamona Windfarm,

Woodhouse Windfarm and Substation, or any other plans or projects are likely to arise in terms of WFD status.

## Unauthorised development at Woodhouse Windfarm

- 8.4.20. Following on from the appellants' contention that the planning application and EIA, AA and WFD assessments must encompass the totality of wind farm development, another issue arises in relation to unauthorised development. Essentially, third party appellants submit that the proposed grid connection would be a material extension of unauthorised development. It is submitted that the Planning Authority's decision fails to acknowledge the nature and extent of unauthorised works at Woodhouse Substation, on the forestry tracks and on the local road network, as well as the turbine blades at Woodhouse Windfarm, which were erected significantly larger than the permitted (51m instead of 45m). The appellant considers that the proposed grid connection is reliant upon unauthorised development and the predication of the subject application on such unauthorised development would have necessitated a remedial EIAR and application for substitute consent.
- 8.4.21. From the outset, I have concluded above that the proposed grid connection does not amount to the creation of a single linked development and that there is no requirement to obtain planning permission for all elements of windfarm development at this location at the same time. Woodhouse Windfarm is a separate development, and I consider that any question regarding the planning status of that development does not affect the current grid connection proposal for a separate windfarm.
- 8.4.22. The Planning Authority highlight that the proposed grid connection is to a substation which has planning permission and there is no record of non-compliance regarding the substation. Allegations of unauthorised development relate to a number of turbines at Woodhouse Windfarm being non-compliant, and in any instance, it is considered that these turbines do not facilitate the current proposal. This view is endorsed by the applicant, who states in response that no unauthorised works have been carried out by the applicant at Woodhouse Substation, on the forestry tracks, or on the local road network. The applicant concurs that the Woodhouse turbines do not facilitate the proposed grid connection to the authorised Knocknamona Windfarm.

- 8.4.23. In terms of the planning status of the proposed haul route, it should be noted that no works are proposed to the existing windfarm entrance or internal roads and the applicant confirms that they have not carried out any other unauthorised road works. It would appear, therefore, that any previous road works carried out on forestry lands or on the local road network are not the responsibility of the applicant and may have been carried out as maintenance works by relevant authorities.
- 8.4.24. I note the Inspector's Report on the previous grid connection ref: ABP-306497-20, which refers to the ongoing legal actions relating to the Woodhouse Windfarm and Substation. On the basis of the most recent information at that time, legal proceedings were ongoing, and no final decision has issued. This would still appear to be the case, and I would be in agreement that there is no direction from any court to instruct the Board not to continue to determine the current appeal. The Board does not have the benefit of full information regarding the planning status of the Woodhouse Windfarm and Substation and is not party to the legal proceedings regarding these developments. Therefore, I do not agree that the proposed grid connection would consolidate an unauthorised development.
- 8.4.25. There is also the argument that the current proposal would utilise the access and windfarm roadway to Woodhouse Windfarm and therefore relies on unauthorised development. As noted, no works are proposed to the Woodhouse Windfarm access or internal roads, and as demonstrated above, there is no other functional or legal connection between the proposed grid connection and Woodhouse Windfarm. I note also that there is an alternative access to the grid connection site to the south-east via a forestry road off a local road and that the cumulative impact in terms of access to the site is assessed fully in Section 9.13.
- 8.4.26. Overall, I consider that there is no evidence at the current time that the proposed development would represent a material extension of unauthorised development. For this reason, I do not consider that there are grounds for the Board to refuse permission for the proposed grid connection on this basis.

#### 8.5. Other Issues Raised in Submissions

- 8.5.1. An **oral hearing** was requested by appellants. The Board decided on 30<sup>th</sup> April 2024 that there was sufficient written evidence on file to enable an assessment of the issues raised, and therefore it was decided that an oral hearing should not be held.
- 8.5.2. Public notices are raised by appellants as being inadequate to properly describe the proposed development. It should be noted that the planning application was submitted to the Planning Authority in the first instance, and it was accepted as being valid. I would also be of the view that public notices are adequate to properly describe the proposed development. Haul routes are described in full within application documentation and it should be noted that no actual haul route works are proposed under this application. The proposed grid connection application specifically includes reference to the proposed alteration of the haul route from that which was previously proposed, and this route is fully assessed in the EIA.
- 8.5.3. Appellants were not entirely satisfied that **letters of consent** have been furnished from all relevant land owners. However, as pointed out by the applicant, letters of consent cover the entire lands subject to the application, and the planning application was validated by the local authority on that basis. Another related issue is the extent of the applicant's land ownership. The applicant highlights in response that landowner consent is delineated as land under control of the applicant, i.e. blue line boundary, and this does not negate the ownership or use of lands by others. To state that the windfarms are now under one landowner's control is a misunderstanding of the purpose and meaning of the blue line boundary in the planning process, according to the applicant. As noted above, in relation to the allegations of project splitting, I consider that it has been demonstrated that Knocknamona Windfarm and Woodhouse Windfarm are separate entities. Woodhouse Windfarm is owned and operated by ESB.
- 8.5.4. It is submitted that the density and height of turbines on the top of Drumhills is likely to impact on qualifying interest **bird species.** The proposed grid connection is assessed cumulatively and in-combination with other plans and projects in terms of EIA and Appropriate Assessment in Sections 9 and 10 respectively. It is concluded that the cumulative effects of both the proposed grid connection and authorised Knocknamona Windfarm being built at the same time will not be significant.

Woodhouse Windfarm and Substation are already constructed and will not cause any noticeable additional effects. Impacts on birds where previously assessed in 2016 and 2022 as not significant, and with the effects on birds from the grid connection no greater than imperceptible, the combined impact of the whole Knocknamona windfarm project will not be significant.

- 8.5.5. There will also be no significant cumulative impact from the proposed development and other plans and project in terms of noise, shadow flicker, air quality, and any other environmental factor. The predicted substation **noise** emissions are below any of the EPA noise limit criteria for licenced sites, and cumulative operational noise levels are at least 10dB(A) below the allowable noise limit for the authorised Knocknamona Windfarm. Having regard to the very limited contribution that the proposed grid connection will make to noise levels, I do not consider that a noise related condition attached to any grant of planning permission is necessary. Similarly, a condition relating to **decommissioning** would not be necessary as the new buildings, plant and apparatus in Woodhouse Substation will not be decommissioned, and the new link road and widened sections of forestry road will also remain permanently in place. Underground cabling would be removed but ducting would be left in place if/ when Knocknamona Windfarm is decommissioned.
- 8.5.6. In terms of **Appropriate Assessment**, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of these European sites, or any other European site, in view of the sites' Conservation Objectives (see Section 10).
- 8.5.7. It is submitted by appellants that in the absence of any national or county wind energy strategy with a spatial dimension, the proposed development would set an undesirable precedent for ad hoc clustering of wind farms in a visually sensitive rural area contrary to Development Plan **Policy UTL 12**, and would be premature pending a detailed energy master plan incorporating spatial energy demand and generation analysis. I would note in response to this statement that permission has already been granted for Knocknamona Windfarm and this permission stands alone and cannot be reversed by the current planning application. The Policy Context relating to the proposed development is addressed in Section 8.3. In my opinion, the proposal helps to deliver Policy UTL 12 by enabling development that will contribute towards carbon reduction targets.

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8.5.8. It is submitted that the proposed link road and widening of forestry road do not appear to incorporate any **drainage** save for 1% gradient to allow run off. Risk to water and designated sites from drainage pathway links are assessed in the EIAR. There is slight pre-mitigation potential for impacts on surface water due to sediment entrainment. Mitigation is proposed in the form of silt fences / silt trap arrangements. Any other impacts on surface water quality will be imperceptible. It is apparent from site surveys that there is a lack of discrete surface water flowpaths, suggesting that the ground in the area has reasonably good natural drainage. Runoff from the existing forestry tracks dissipates and infiltrates into the surrounding ground and this arrangement will continue, whereby adjacent vegetated ground will act as a natural filter.

# 9.0 Environmental Impact Assessment

#### 9.1. Statutory Provisions

- 9.1.1. The Environmental Impact Assessment Directive requires that projects that are likely to have significant effects on the environment must be suitably assessed prior to any consent decision being made. As a standalone project, the proposed development of an underground electrical cable linking the wind farm (to be constructed) to the operational Woodhouse Substation does not fall under any class of development listed in Annex I or Annex II of Schedule 5 of the Planning and Development Regulations, 2001 (as amended) for the purposes of Part 10 (Environmental Impact Assessment). In terms of certain aspects of the proposed development, Class 10(dd) of Part 2 of the Fifth Schedule includes private roads that exceed 2,000m in length. The 190m length of road proposed in this case is therefore significantly below this threshold.
- 9.1.2. Notwithstanding this, the proposed application is accompanied by an EIAR in view of the fact that the proposed grid connection forms part of a larger windfarm development, which itself was subject to EIA, and to allow for the consideration of the cumulative environmental effects of the proposed grid connection and other existing and permitted developments. The Board is also required to consider the EIAR in compliance with the Planning and Development Act and Regulations in circumstances where an EIAR is submitted with the planning application.

# 9.2. EIA Structure

- 9.2.1. This section of the report comprises the Environmental Impact Assessment (EIA) of the proposed development in accordance with Planning and Development Act 2000 (as amended) and the associated Regulations, 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 Environmental Impact Assessment Report (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. including 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 between these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.
- 9.2.2. Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR. 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 Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, 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,

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- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.
- 9.2.3. It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Board's decision, should they agree with the recommendation made.
- 9.3. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations
- 9.3.1. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is set out below.

Section 94 (a) Information to be contained in an EIAR (Schedule 6, para. 1)			
The proposed development is comprehensively			
described in Section 5 of the EIAR and depicted			
in the associated drawings. Information is			
included on the site, design, size and features of			
the proposed underground cabling and			
additional plant and apparatus in the existing			
substation, together with details on the new link			
road and forestry road widening. The EIAR also			
describes the construction, operational and			
decommissioning phases of the development,			
as well as the use of natural resources,			
emissions and wastes. I am satisfied that			
adequate detail has been provided to enable			
decision making.			
An assessment of the likely significant direct,			
indirect, and cumulative effects of the			
development is carried out for each of the			
technical chapters of the EIAR (Chapters 6-14).			
I am satisfied that the assessment of significant			
effects is comprehensive and robust and			
enables decision making.			
These are included in the EIAR under Chapter			
16: Mitigation & Monitoring Arrangements.			
Volume D of the EIAR also contains an			

if possible, offset likely significant adverse	Environmental Management Plan to
effects on the environment of the development	communicate the environmental management
(including the additional information referred to	requirements to those with responsibility for
under section 94(b).	carrying out works on site so that adverse
	effects of the development on the receiving
	environment can be minimised.
A description of the reasonable alternatives	Chapter 4 of the EIAR considers alternatives in
studied by the person or persons who prepared	respect of do nothing, grid connection location
the EIAR, which are relevant to the proposed	point and grid connection technologies. This
development and its specific characteristics, and	section provides the main reasons for selecting
an indication of the main reasons for the option	the proposed option(s) and a comparison of
chosen, taking into account the effects of the	environmental effects. I consider, therefore, that
proposed development on the environment	the description of alternatives is reasonable, in
(including the additional information referred to	the context of the proposed development, and
under section 94(b)).	satisfactory.
Section 94(b) Additional information, relevant	to the specific characteristics of the
development and to the environmental feature	s likely to be affected (Schedule 6, Para. 2).
A description of the baseline environment and	A detailed description of the baseline
likely evolution in the absence of the	environment is included in each of the technical
development.	chapters of the EIAR, which I am satisfied, is
	sufficient to enable the assessment of likely
	effects and to enable decision making.
A description of the forecasting methods or	Forecasting methods and/or evidence to identify
evidence used to identify and assess the	and assess significant effects are included in the
significant effects on the environment, including	EIAR, as required for relevant environmental
details of difficulties (for example technical	topics. Technical difficulties are identified where
deficiencies or lack of knowledge) encountered	necessary, and I am satisfied that there are no
compiling the required information, and the main	significant deficiencies that prevent decision
uncertainties involved	making.
A description of the expected significant adverse	Likely significant effects of the development on
effects on the environment of the proposed	the environment, arising from its vulnerability to
development deriving from its vulnerability to	risks of major accidents and/or disasters
risks of major accidents and/or disasters which	addressed, are described in Chapter 5 of the
are relevant to it.	EIAR and are adequate to support decision
	making.
A summary of the information in non-technical	This information has been submitted as a
language.	separate standalone document (Volume 1 –
	Non-Technical Summary). I am satisfied that
	the document is concise and comprehensive

	and is written in a language that is easily
	understood by a lay member of the public.
Sources used for the description and the	Sources used for the description and
assessments used in the report	assessment of environmental effects are
	included in each technical chapter of the EIAR.
A list of the experts who contributed to the	The experts who prepared the technical
preparation of the report	assessments are identified in Chapter 2 and in
	each technical chapter of the EIAR including
	relevant qualifications.

# 9.4. Consultations

- 9.4.1. The main issue concerning EIA within appeal submissions relates to allegations of project splitting and the need to carry EIA for the full windfarm cluster at Drumhills. It is submitted that the EIAR fails to properly consider cumulative impacts and that the proposed linkage to Woodhouse Windfarm in terms of grid connection and haul route creates a single development for the purposes of EIA.
- 9.4.2. Matters relating to the legal status of the windfarm, project splitting and unauthorised development have been addressed in Section 8 above. It is concluded that project splitting for the purposes of EIA does not occur when all relevant plans and projects in the surrounding area are cumulatively assessed. The cumulative impacts of the proposed development are assessed under each of the environmental factors below.
- 9.4.3. Other specific issues are raised in submissions relating to noise, shadow flicker, impacts on biodiversity, impacts on residential amenity, water quality impacts, and landscape and visual impacts. These are addressed in detail under the relevant EIA sections below taking into account the applicant's response to same.
- 9.4.4. The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended), in respect of public notices. I note that these, the public notices, refer to all of the townlands in which the development is proposed. The planning application also includes the planning application form, letters of consent, site and newspaper notices, a schedule of submitted documents, EIA Portal Notification and a schedule of planning drawings. The planning

application was also referred to internal local authority departments and to prescribed bodies by the planning authority.

- 9.4.5. Chapter 3 of the EIAR sets out details on scoping consultations with Waterford County Council Planning and Roads Department, and with statutory bodies and other parties. Consultations with Grid Connection Operators ESB Networks and Eirgrid, confirmed that there was adequate spare capacity and space to accommodate a grid connection at Woodhouse Substation. Pre-planning consultations with Waterford City & County Council for the previous grid connection application remain relevant and this informed the scoping for the 2023 EIAR. Responses to scoping consultation requests were received from Transport Infrastructure Ireland, the Development Applications Unit (DAU), the Irish Aviation Authority, the Health and Safety Authority, Uisce Éireann, Fáilte Ireland and Geological Survey of Ireland.
- 9.4.6. A total of 15 valid submissions on the application were received by Waterford City & County Council. Following the Council's notification of decision to grant permission for the proposed development, the Board received three third party appeals against this decision. The Board then invited the applicant to respond to the issues raised in third party appeals.
- 9.4.7. Overall, I am satisfied that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development and engage with the application process in advance of decision making.

# 9.5. Compliance

9.5.1. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and the supplementary information provided by the developer is sufficient to comply with article 94 of the Planning and Development Regulations, 2001.

### 9.6. Consideration of Alternatives

9.6.1. Chapter 4 of the EIAR considers alternatives in respect of do nothing, grid connection location point, grid connection technologies and component haul route.

- 9.6.2. Two alternative grid connection routes were considered. The grid connection to Dungarvan Substation did not form part of the Knocknamona Windfarm development granted permission in December 2016; however, the grid connection was evaluated in the EIS at the time in order to facilitate the cumulative assessment of the effects of Knocknamona Windfarm. The Dungarvan grid connection would have consisted of an underground cable between the Knocknamona Windfarm substation to Dungarvan Substation via one of two routes; Route A c.14km in length and Route B c. 11.5km in length.
- 9.6.3. The current proposal is for an underground cable over a distance of less than 2km between Knocknamona Windfarm Substation and Woodhouse Substation. The cable route would continue through felled forestry, forestry road, scrub, a farm track crossing, a public road crossing, Woodhouse Windfarm roads, and grasslands.
- 9.6.4. A comparison of environmental impacts of the two alternative grid connection routes was carried out. The grid connection to Dungarvan Substation would result in slight damage to the public road pavement and bridges; slight reduction in residential amenity (noise, dust, road works); slight reduction in water quality in European sites; and slight disturbance to otter, badger, bats and birds. There would be a moderate reduction in water quality and moderate damage to cultural heritage sites. For the proposed grid connection to Woodhouse Substation, these impacts would either be neutral/ non-existent or imperceptible. The proposed grid connection is therefore a better alternative method and route when a comparison of environmental effects is considered.
- 9.6.5. The overhead line and underground alternatives were considered to connect the authorised Knocknamona Windfarm to Woodhouse Substation. The overhead line would be a new permanent built feature in the landscape, and the underground cable would be completely reinstated and would have no above-ground features. The overhead line would have a slightly negative effect on the landscape and there would be no impact with the underground cable. Underground cabling was therefore chosen as a preferred technology for the grid connection when comparison of environmental effect was considered.
- 9.6.6. Two alternative haul routes were considered for Component deliveries: (a) through Knocknamona Windfarm site entrance at Knocknaglogh Lower on the L6077 and (b)

through existing Woodhouse Windfarm main entrance gate at Woodhouse or Tinakilly on the L60741. The haul route through Knocknamona Windfarm site entrance would require road works with slightly negative impacts on the environment in order to deliver the turbine components. The haul route through Woodhouse Windfarm requires no road works and was chosen as the predominant turbine component and grid connection electrical equipment haul route. The haul route through Knocknamona Windfarm will remain the route for construction materials on some turbine components for the Knocknamona Windfarm.

- 9.6.7. The 'do nothing' alternative is considered throughout the EIAR for each environmental topic. The impact of the grid connection not being constructed would be that Knocknamona Windfarm may not be built with consequences including inaction in relation to climate change remediation; no improvement to national balance of payments through the substitution of an indigenous energy source for an imported energy source; and loss of long term economic gain locally from commercial rates and community benefit payments.
- 9.6.8. In general, all reasonable alternatives that are relevant to the design of the project and its specific characteristics as presented are clearly set out in the EIAR. The main reasons for the chosen options and the development of the design process are included, together with the background to the statutory planning process. I would therefore be satisfied that this section of the EIAR is sufficient to comply with the provisions of Article 94 and Paragraph 1(d) of Schedule 6 of the Planning and Development Regulations, 2001 (as amended).

# 9.7. Assessment of Likely Significant Effects

- 9.7.1. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out in Section 171A of the Planning and Development Act, 2000, as amended.
  - Population and human health,
  - Biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively),
  - Land, soil, water, air and climate,

- Material assets, cultural heritage and the landscape, and
- The interaction between these factors.
- 9.7.2. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR, the associated drawings, documents/appendices and the submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on the environmental parameters set out in the Regulations and the interaction of these. Each topic section is therefore structured under the following headings:
  - Issues raised.
  - Examination, analysis and evaluation.
  - The Assessment: direct and indirect effects.
  - Conclusion.

### 9.8. **Population and Human Health**

#### **Issues Raised**

- 9.8.1. Consideration should be given as to whether issues raised in third party appeals concerning the development of the wider windfarm development, such as noise and shadow flicker, would have cumulative and indirect impacts on population and human health. It is submitted in third party appeals that there has been no assessment of impacts on residential amenities and population/ health arising from Woodhouse and Knocknamona Windfarms. Appellants also note that the study area is restricted to the grid connection and the totality of development stretches for 3.5km east-west and 2.2km north-south.
- 9.8.2. The proposed development by itself and cumulatively is assessed in terms of population and human health below. In addition, the conclusion is reached above, that the cumulative impact of the proposed development has been assessed in the EIAR and this included population and human health.
- 9.8.3. I note the comments within the Planner's Report that the potential impacts of the proposed development in respect of Population and Human Health have been

adequately addressed in the EIAR. The findings of the noise survey are noted, together with the separation distance to the closest dwelling, the nature of the proposed development (i.e. underground cabling) and the short duration of construction works. It is considered that there would be no significant adverse impacts in terms of Population and Human Health.

# Examination, Analysis and Evaluation

- 9.8.4. Population and Human Health is considered in Chapter 6 of the EIAR. Associated appendices include the following:
  - Appendix 6.1 Examination of Potential Impact Pathways to Population & Human Health
  - Appendix 6.2 Risk Perception and Wind Farms
  - Volume D Environmental Management Plan for Knocknamona Windfarm (KWF)
     Grid Connection
- 9.8.5. The EIAR includes the local population and the transient population as the two sensitive aspects under population and human health for detailed evaluation. The baseline assessment for population and human health in the EIAR identified the surrounding area as rural and sparsely populated, with isolated residences and farmsteads. There are 17 houses within 1km of the proposed grid connection and the nearest two dwellings at distances of 330m and 460m are landowners involved with the development. The nearest non-land owner is at a distance of 550m. Aglish is the nearest village, which is located approximately 2km to the west, and Dungarvan is approximately 8km to the east.
- 9.8.6. The appeal site is within the Electoral Division of Keereen and over 90% of the 227 population within this area described themselves as having 'good' or 'very good' health in the 2016 Census. Employment in the area is concentrated in agricultural, forestry and fishing, manufacturing, professional services and commerce and trade. There is a lower percentage unemployed in Keereen than the county and State average. Over three-quarters of the population commutes to work or for educational purposes.
- 9.8.7. The cumulative study area includes the five additional EDs surrounding Keereen, (Dromana, Whitechurch, Dromore, Mountstuart and Carriglea). The preliminary

results of the 2022 Census recorded a population of this area (including Keereen) of 2,172 persons. The population density of the cumulative study area is also sparsely populated. There are 15 businesses, two national schools, one village and three GAA clubs within the cumulative study area.

- 9.8.8. It is expected that over the operational phase of the grid connection, the local population will grow slowly in line with the national growth rate. It is also expected that the local economy will grow slowly and the socio-economic and health circumstances of the local population will improve over the long term, but not to an extent that will materially alter the baseline environment.
- 9.8.9. Transient people are those who work in or visit the area such as farm and forestry workers, road users, walkers and other recreational users. Numbers of such people are expected to be low and limited to farm, windfarm, substation and forestry workers; walkers or bikers; and road users along the local roads. Any changes to the baseline in relation to land management and tourism are expected to occur slowly, and thus, there will be no material change in baseline by the time of the construction or operation of the development.
- 9.8.10. Table 9.7.1 below summarises the likely significant effects of the proposed development on population & human health as identified in the EIAR.

Potential Population & Human Health Impacts	Potential Effects in the absence of Mitigation	Mitigation and Monitoring Measures	Residual Impact
	Const	ruction	•
Local Population	<ul> <li>Positive (imperceptible) gross value added impact to business and employment opportunities.</li> <li>Neutral impact in terms of business disruption; increased road maintenance cost to the Council; impact on health due to changes in air quality and ambient noise and vibration; and risk of road accidents.</li> <li>Imperceptible impact in terms of reduction in tourism revenue.</li> <li>Positive (neutral) impact in terms of improvement in local health due to increased local employment.</li> </ul>	<ul> <li>No significant negative impacts are anticipated during the construction phase in respect of the assessment topics and therefore no mitigation and monitoring measures are proposed.</li> <li>Construction works will be carried out in accordance with the Health and Safety Authority (2016): Code of Practice for Avoiding Danger from Underground Services and ESB Networks (2019): Code of Practice for Avoiding Danger from Overhead Electricity Lines (DOC-230910- BBA).</li> </ul>	Neutral (negative) and slight to moderate (positive).
	ambient noise and vibration and air quality. - Neutral risk of road accidents.		
	Operation	nal Phase	
Local Population	<ul> <li>Neutral impact in terms of gross value added to business &amp; employment opportunities; reduction in tourism revenue; improvements in health due to increased local employment; impact on health due to exposure to EMF; and impact on health due to changes in ambient noise and vibration.</li> <li>Positive slight improvements in County budget due to commercial rates.</li> </ul>	- No significant negative impacts are anticipated during the operational phase in respect of the assessment topics and therefore no mitigation and monitoring measures are proposed.	Neutral (negative) and slight to moderate (positive).

	- Positive increase in local economy due to community benefit scheme.		
Transient Population	- Neutral impact on health due to changes in ambient noise and vibration and exposure to EMF.		Neutral
Do Nothing:			
- If the proposed grid co in line with trends.	onnection does not proceed, effects on the envir	ronment will not occur and the baseline enviror	nment will only change
Decommissioning:			
It is not envisaged that the new buildings, plant and apparatus in Woodhouse Substation will be decommissioned. New link road and widened sections of forestry road will also remain permanently in place. If permission is not granted to continue the operation of Knocknamona Windfarm at the end of its operating life, then underground cabling linking the windfarm to Woodhouse Substation will be decommissioned. Cabling would be removed and ducting left underground.			
Cumulative Effects:			
- Positive (not significant) cumulative impact of whole Knocknamona Windfarm project on gross value added to business & employment			
<ul> <li>Imperceptible cumulative impact of whole Knocknamona Windfarm and Woodhouse Windfarm and Substation in terms of reduction in tourism revenue during construction.</li> </ul>			
- Positive (not significant) cumulative impact of whole Knocknamona Windfarm project due to increased local employment during construction.			
<ul> <li>Positive (moderate) cumulative impact with Knocknamona and Woodhouse Windfarms and substation from community benefit scheme during operation. Slight positive cumulative impact in County due to commercial rates.</li> </ul>			
- Neutral cumulative im road accidents.	pact on transient population health due to chang	ges in ambient noise and vibration, exposure to	o EMF, and from risk of

Table 9.7.1 – Consideration of Impacts, Significance and Mitigation Measures for Population and Human Health

# The Assessment: Direct and Indirect Effects

- 9.8.11. I have examined, analysed, and evaluated Chapters 6 of the EIAR, and all of the associated documentation and submissions on file in respect of effects on population and human health. I am satisfied that the applicant has presented a good understanding of the baseline environment, and that the key impacts in respect of likely effects on population and human, have been identified.
- 9.8.12. I am also satisfied that the local population (residents, community and economy) and transient people (walkers, road users, farm or forestry workers) are the only sensitive aspects that may potentially be impacted by the proposed development. The main indirect and cumulative effect will be positive in nature and will relate to the improvement to the local economy due to the community benefit fund from Knocknamona Windfarm, which the proposed grid connection will facilitate. Negative effects will be neutral/ imperceptible due to the small scale and duration of the proposed development during the construction phase, amounting to approximately 4 months; the lightly used local road network; the sparse population in the area; and the low number of transient people. Adverse cumulative impacts with Knocknamona Windfarm will be neutral due to the small locational overlap. The Woodhouse Windfarm and Substation is already constructed and there will be no cumulative operational effects. Effects on property values and tourism revenue will also be neutral.
- 9.8.13. Following the assessment, it can be concluded that the proposed development will have no significant negative impact on people and communities. There will be no significant effects on population and human health with any existing, permitted or proposed project/ plan.

### **Conclusion**

- 9.8.14. Having regard to the foregoing, it is considered the main direct and indirect effects on population and human health are as follows:
  - Moderate cumulative and positive impact on Population and Human Health due to improvements in the local economy arising from the establishment of the Knocknamona Windfarm community benefit scheme.

#### 9.9. Biodiversity

#### **Issues Raised**

- 9.9.1. Issues were raised in third party submissions relating to the density of wind turbines on Drumhills and the impact on bird flight paths; impact on Freshwater pearl mussel and White clawed crayfish, which are QI species for the Blackwater River SAC; and impact on wetland of biodiversity importance (WD284). Issues relating to Appropriate Assessment are addressed in Section 10 below. The wetland of biodiversity importance is assessed below in Section 9.10.11
- 9.9.2. It is noted in the Planner's Report that the site comprises lower value habitat and that much of the undergrounding will take place under existing roadways. There will be no permanent severance of hedgerow or habitat, removal of high value trees or tree felling. The Heritage Officer did not express any objection to the proposal on the basis of the lower ecological habitat value in the area. The Case Planner also notes that no bird species of medium or high conservation status rely on the site and surrounding area for breeding/over-wintering habitat purpose. It is considered that the potential impacts of the proposed development in respect of biodiversity have been adequately addressed in the EIAR and that the proposed development would not have any significant adverse direct or indicted effects.

### Examination, Analysis and Evaluation

- 9.9.3. Biodiversity is addressed in Chapter 7 of the EIAR. Associated appendices include the following:
  - Appendix 7.1 Evaluation of Potential Impacts to Biodiversity
  - Appendix 7.2 Bird Survey Data 2015 2023
- 9.9.4. The sensitive aspects identified in the EIAR are terrestrial habitat, birds, mammals, and aquatic habitat and species. Sources of baseline information for biodiversity include the National Biodiversity Action Plan, guidelines for ecological evaluation, desktop analysis and fieldwork. Baseline information was supplemented by baseline information for Knocknamona Windfarm.
- 9.9.5. The study area for terrestrial habitat is the construction works boundary and access road through Woodhouse Windfarm plus 50m in all directions. The cumulative study area comprises those parts of other projects or activities which occur within 100m of

the construction works area boundary. Terrestrial habitats of local importance (high value) within the study area include semi-natural woodland (0.4%) and hedgerow (61m). There are no suitable habitats within the proposed development site for rare and protected flora. Small areas of Wet willow-alder-ash woodland (WN6) and Wet heath (HH3) were recorded on the Knocknamona Windfarm; however, these habitats do not occur within the cumulative evaluation study areas. Habitats contained within the Knocknamona Windfarm site, their distribution, and quality remain largely unchanged in the passage of time since the initial 2014 habitat surveys for the windfarm.

- 9.9.6. The study area for birds is the construction works area boundary plus 50m and the cumulative assessment extends to 1km from this boundary. Feeding and nesting habitats within the proposed development site are diminished due to the low value habitats present. Habitats and birds affected by the proposed development are of Local Importance (lower value) and those within the cumulative study area are of Local Importance (higher value). Baseline data was derived from the extensive bird survey effort for the proposed grid connection and Knocknamona Windfarm from 2015 to 2023. Of the species recorded in surveys, Meadow Pipit, Curlew, Golden Plover, Kestrel, Swift, Snipe and Woodcock are evaluated as having medium sensitivity and the remaining amber and green listed species have low sensitivity.
- 9.9.7. The study area for bats is 150m from the construction works area boundary and access road through Woodhouse Windfarm. For the cumulative study, 300m of the construction works area boundary and access road through Woodhouse Windfarm is used. Sections of watercourse within 300m and a distance of 50m from the construction works area were used for otter and badger and other mammals respectively. The proposed grid connection cumulative study area includes those parts of other projects or activities which occur within 300m, 600m and 100m respectively for bats, Otter and Badger and Other Mammals, of the construction works area boundary.
- 9.9.8. Moderate numbers of bats can also be found in conifer plantations and agricultural land, and linear habitats such as treelines, hedgerows, forestry roads and watercourses are favoured foraging and commuting habitats. A bat roost survey was undertaken in June 2023. There was no evidence in 2023 or in 2017 that any bats roosting within the construction works area boundary. The conifer forestry within the

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study areas are considered to have negligible suitability for roosting bats and only two trees were found to have moderate suitability for roosting bats. The forestry roads are regularly used as feeding areas by moderate numbers of common pipistrelle and soprano pipistrelle bats, while the non-forested areas are used by low numbers of Leisler's bats and pipistrelles.

- 9.9.9. Site visits were conducted on 8<sup>th</sup>/ 9<sup>th</sup> June 2023 for other mammals and no sightings were recorded. Previous site visits had recorded the presence of fallow deer, rabbit and badger. There is only one watercourse within 300m of the proposed grid connection and no sightings of otter were recorded in the 2020 and 2023 field surveys. There is suitable habitat on site for pine marten and Irish Hare. Both species have been recorded previously in surveys. There is also suitable habitat for badger, red squirrel and stoats but no sightings of these species in surveys. The overall feeding and nesting habitat with the grid connection site are not of any particular importance to mammals and are evaluated in the EIAR of Local Importance (lower value).
- 9.9.10. The baseline for Woodhouse Substation and Woodhouse Windfarm are considered to have levels of bat activity similar to those recorded in the open farmland. Habitats in these areas are widespread and common and of no particular importance to other mammals. Habitats at the Knocknamona Windfarm site and environs are also widespread and common and of no particular importance to bats, and there has been negligible change in recorded bat species between 2013 and 2020. Habitats within the Knoncknamona Windfarm have remained largely unchanged since 2013. Bats are assessed within the study areas as being of 'Local Importance' (higher value), with 'Low' Sensitivity. Other protected mammals including otter are assessed as being of 'Local Importance (higher value) with a 'Low' Sensitivity.
- 9.9.11. In terms of aquatic habitats and species, the study area for both the grid connection and cumulative development is local surface water body catchments. The study area lies in an upland area at the Blackwater and Colligan-Mahon catchment divide. There are no watercourses within the construction works area for the grid connection and the nearest 1<sup>st</sup> order stream flows is within 280m (Mountodell Stream). Monageela Stream is also 1<sup>st</sup> order and rises c. 350m south of the grid connection cabling. Downstream, the EPA River Water Quality Status (2019-2022) of the River Brickey is Poor and the Finisk River and Goish River is High and Moderate

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respectively. The nearby streams are likely to support small numbers of Brown trout Salmo trutta and the Finisk River is a producer of Atlantic Salmon S. salar. and Sea trout. The Brickey and Goish Rivers support Sea trout only. Most of the Woodhouse Windfarm and substation also lie in the Finisk River surface water catchment; one of the eight turbines lies within the Goish River surface water catchment. Six of the eight turbines within the Knocknamona Windfarm site exist within the Goish River surface water catchment, with the remaining two situated within the Brickey Rivers surface water catchment. Surface water runoff rates are not thought to be high from previous investigations, which would explain the low drainage density within the forestry. Downslope watercourses and aquatic fauna are assessed as being of 'local importance (higher value)'.

- 9.9.12. The Appropriate Assessment of European Sites is carried out in Section 10.
- 9.9.13. Table 9.8.1 below summarises the likely significant effects of the proposed development on biodiversity as identified in the EIAR.

Potential Biodiversity Impacts	Potential Effects in the absence of Mitigation	Mitigation and Monitoring Measures	Residual Impact
	Const	ruction	
Terrestrial Habitats	<ul> <li>Imperceptible reduction in terrestrial habitats.</li> <li>Imperceptible impact on hedgerow/ field boundary severance.</li> <li>Neutral landscape level habitat fragmentation.</li> <li>Imperceptible impact in terms of introduction or spread of invasive species.</li> </ul>	<ul> <li>Construction works will be carried out in accordance with the Environmental Management Plan.</li> <li>Water quality protection scheduling – underground cable will be constructed in 50m sections to reduce potential for sediment laden run-off.</li> <li>Invasive species – steam cleaning of machinery entering site and implementation</li> </ul>	- No significant residual effects.
Birds	- Imperceptible impacts in terms of habitat	of biosecurity measures.	- No significant
Mammals	<ul> <li>No likely impact in terms of destruction or disturbance of bat roosts; severance/ disruption of commuting routes and feeding areas; or disturbance or displacement due to lighting.</li> <li>Imperceptible impact on otter from habitat degradation, disturbance or displacement.</li> <li>Imperceptible impact on pine marten and Irish hare from habitat loss, disturbance or displacement.</li> <li>Imperceptible impact on other mammals from habitat loss, disturbance or displacement.</li> </ul>	<ul> <li>Suspended solids – Installation of slit fences / silt trap arrangements and temporary blocking of roadside drain at Knocknamona Windfarm Substation.</li> <li>Covering of temporary spoil heaps with polyethylene sheets and no excavation, substation or link road works during heavy rainfall.</li> <li>Fuels &amp; oils – stored in designated location in bunded, locked storage containers. Fuel will be brought to the site by a 4x4 in a double skinned Bowser with drip trays. Plant and machinery will be regularly inspected for leaks and fitness for purpose. Spill kits will be readily available</li> </ul>	- No significant residual effects.
Aquatic habitats & species	- Imperceptible impact in terms of decrease in instream aquatic habitat quality and changes to instream flow regime.	<ul> <li>and personnel will be trained to deal with accidental spills.</li> <li>Cements - no batching on site and large volumes of cement will not be present on</li> </ul>	- No significant residual effects.

	- No impact in terms of disturbance or displacement to fish and aquatic species, and spread of aquatic invasive species.	site at any time. No discharge of concrete washout waters to any artificial stream or watercourse, and concrete washout bags will be placed under the chute to catch washout waters. Weather forecast will be used to plan concrete pouring for dry days.	
	Оре	ration	
Terrestrial Habitats	- Imperceptible impact in terms of introduction or spread of invasive species.	- Any replacement/ removal of cable will involve reopening of jointing location and reinstatement. Any such works will not be	- No significant residual effects.
Birds	- Imperceptible habitat loss impacts.	carried out during intense or prolonged rainfall; temporary silt fencing will be used;	- No significant residual effects.
Mammals	- No likely impact.	and machinery will be steam cleaned and inspected, and spill kits will be readily	- No significant residual effects.
Aquatic Habitat & Species	- No likely impact	available.	- No significant residual effects.
Do Nothing:			
<ul> <li>If proposed grid connection does not proceed, the effects on the environment will not occur, and the baseline will only change in line with trends.</li> <li>Assumed the status of the surface water bodies within the study area will be as reported - worst-case scenario is the Brickey River and the Goish River may achieve Good Status in the coming years which means catchment pressures would have eased or have been addressed.</li> </ul>			
Decommissioning:			
It is not envisaged that the new buildings, plant and apparatus in Woodhouse Substation will be decommissioned. New link road and widened sections of forestry road will also remain permanently in place. If permission is not granted to continue the operation of Knocknamona Windfarm at the end of its operating life, then underground cabling linking the windfarm to Woodhouse Substation will be decommissioned. Cabling would be removed and ducting left underground.			
Cumulative Effects:			
<ul> <li>Imperceptible cumulative impact with the authorised Knocknamona Windfarm on terrestrial habitat (reduction, hedgerow field boundary severance, landscape level habitat fragmentation during construction, and spread of invasive species during construction and operation).</li> <li>Imperceptible to slight cumulative impact with the authorised Knocknamona Windfarm on birds due to habitat loss and disturbance/ displacement during construction.</li> </ul>			

- limperceptible / no additional cumulative impact with the authorised Knocknamona Windfarm and Woodhouse Windfarm and substation during construction.

- Imperceptible cumulative impact with authorised Knocknamona Windfarm on instream aquatic habitat quality and flow regimes.

 Table 9.8.1 – Consideration of Impacts, Significance and Mitigation Measures for Biodiversity

# The Assessment: Direct and Indirect Impacts

- 9.9.14. I have examined, analysed, and evaluated Chapter 7 of the EIAR, all of the associated documentation (notably Bird Survey Data 2015-2023, the Environmental Management Plan and the reference documents including previous EIS/ EIAR), and submissions on file in respect of effects on biodiversity. I am satisfied that the applicant has demonstrated a good understanding of the baseline environment and the likely environmental effects of the development.
- 9.9.15. The proposed underground grid connection is situated largely along existing forestry roads over a distance of 1,940m. A length of 960m of forestry road will be widened by 1m and a new link road (190m) will be constructed through scrub. The proposed development was assessed in the EIAR for the following direct and indirect impacts:
  - Reduction in terrestrial habitats; hedgerow/earthen bank field boundary severance; landscape level habitat fragmentation; loss of high nature value trees; loss of Flora Protection Order species; and introduction and spread of invasive species.
  - Habitat loss and disturbance/displacement impacts on birds.
  - Destruction or disturbance of bat roosts; severance of bat commuting routes or feeding areas; disturbance or displacement of bats due to lighting; habitat degradation and disturbance/ displacement impacts for otter; and habitat loss and disturbance/ displacement impacts for pine marten and Irish Hare.
  - Decrease in instream aquatic habitat quality; changes to instream flow regime; disturbance or displacement to fish and aquatic species; and spread of aquatic invasive species.
- 9.9.16. Having regard to the application of standard best practice mitigation measures, as set out in the EIAR, the site-specific and species-specific measures referred to above, together with the scale and duration of the proposed works and the largely imperceptible impacts on terrestrial habitat, birds, mammals, and aquatic habitats and species, I am satisfied that significant effects on biodiversity will not arise. Habitats in the vicinity of the development site are mostly of 'local importance (lower value)' and fauna utilising the site are common in the Irish context. Habitat loss will be reversed through reinstatement of trenches, works areas and earthen banks with
invertebrate friendly plant species. Most construction works will be carried out along existing forestry road and construction will be carried out during daylight and thus, there will be no disturbance / displacement impacts. There is an absence of watercourses within the construction works area boundary and therefore no requirement for instream works or works in close proximity.

9.9.17. In terms of cumulative impacts, the proposed development, in combination with the authorised Knocknamona Windfarm, will not give rise to impacts greater than slight on biodiversity. In addition, impacts on biodiversity were assessed in 2016 and 2022 by the Board as being not significant. Woodhouse Windfarm and Substation are operational, with habitats fully vegetated and no further construction or instream works are expected that might cause cumulative disturbance/ displacement or pollution impacts. Thus, there is no potential for cumulative impacts during construction of the proposed grid connection. Operational activities will have no pathways to terrestrial habitat and operational lighting is controlled. There will be an imperceptible cumulative impact on water quality due to the separation distances to watercourses and the implementation of a Sediment & Erosion Control Plan for the windfarm project.

### **Conclusion**

- 9.9.18. Having regard to the foregoing, it is considered there are no significant impacts on biodiversity. Notwithstanding this, any potential for cumulative impact will be mitigated as follows:
  - Imperceptible cumulative **Biodiversity** impacts with authorised Knocknamona Windfarm on instream aquatic habitat quality and flow regimes. Mitigation will nonetheless be implemented to protect water quality through works scheduling, invasive species management, and measures to mitigate against the release of suspended solids, fuels and oils, and cements.

# 9.10. Land, Soil, Water, Air and Climate

### **Issues Raised**

9.10.1. A number of issues were raised in submissions pertaining to these environmental factors. The cumulative noise impact of the proposed development and surrounding

windfarm development is a concern, together with infrasound and shadow flicker, all of which would fall under the 'air' assessment.

- 9.10.2. With respect to 'water', reference is made to the Water Framework Directive (WFD) and the requirement that water quality is protected and maintained with the aim of achieving good status by 2027, with any new development ensuring that this fundamental requirement of the Directive is not compromised. It is submitted that a WFD assessment was not carried out for previous developments and now there is an obligation to ensure the entirety of the wind farm development is assessed for the purpose of the WFD.
- 9.10.3. There are concerns with the proposed drainage arrangements from access roads and the potential for silt run off, sediment or cement to enter the drainage catchment. It is noted that the study area for assessment of impact on groundwater is limited solely to within 300m from the construction boundary of the grid connection. There are also concerns with the study area for noise, which is limited to the grid connection. It is considered that the empirical operation of the windfarm has given rise to significant noise impacts on surrounding residents in terms of amplitude modulation impacting their health and their sleep pattern and general wellbeing.
- 9.10.4. The Planner's Report states that the EIAR is presented in the context of the proposed, permitted and operational developments adjoining the site, and the combination/ cumulative impacts of same. It is noted with respect to land and soils that normal construction practice will take place and good techniques will be deployed around storage of material; trench length open at any one time (not exceeding 50m), and maintenance of machinery. The Case Planner agrees with the findings of the EIAR that the impact of the proposed works on the environment will be imperceptible, and that the potential impacts in respect of land and soils have been adequately addressed.
- 9.10.5. The proposal does not provide for any discharges to groundwater, and surface water runoff will be managed by way of mitigation measures. It is considered that the potential impacts in respect of water have been adequately addressed in the EIAR and that the environmental impacts would not be significant and would be acceptable.

- 9.10.6. In terms of air, the proposal is examined in the context of air quality, dust, noise and vibration. The Environment Section agrees with the findings of the EIAR in relation to noise, dust, and air quality. The Case Planner also notes the minimum separation distance to the nearest dwelling, the scale of the proposal, and the short duration of the construction works. It is considered that the overall impacts on air quality are negligible, and that no significant cumulative impacts are expected to arise.
- 9.10.7. The proposed grid connection will indirectly contribute positively to addressing climate change through export of 70.5 million kWh of electricity to the National Grid. It is considered that the potential impacts in respect of climate have been adequately addressed in the EIAR, and that the proposed development would result in significant indirect positive impacts on climate.

# Examination, Analysis and Evaluation

- 9.10.8. There are a number of chapters throughout the EIAR that pertain to Land, Soil, Water, Air and Climate. Land and Soils are addressed in Chapter 8 and Water in Chapter 9. Air is covered in Chapter 10 and Climate in Chapter 11.
- 9.10.9. Associated appendices to these chapters include the following:
  - Appendix 8.1 Evaluation of Potential Impacts to Land & Soils
  - Appendix 8.2 Trial Hole Logs
  - Appendix 9.1 Evaluation of Potential Impacts to Water
  - Appendix 9.2 Surface Water Sampling Results
  - Appendix 9.3 Water Framework Directive Assessment
  - Appendix 10.1 Evaluation of Potential Impacts to Air
  - Appendix 10.2 Air Quality Monitoring & Standards
  - Appendix 10.3 Noise Impact Assessment
  - Appendix 10.4 Explanation and Modelling of EMF
- 9.10.10. The proposed development is set in rural countryside and the dominant use of the appeal site is commercial forestry plantation, with a mix of age classes. The surrounding area also consists of improved and productive agricultural grassland. The operational 8-turbine Woodhouse Windfarm and Woodhouse Substation overlap

and adjoin the appeal site to the north-west. Most of the proposed grid connection is located along forestry roads, with two short sections off road comprising grassland and scrub.

- 9.10.11. Soils in the study area comprise mainly of mineral or organic topsoil over shallow glacial tills, and the underlying bedrock is a mixture of sandstone and mudstone. Soil, subsoil and bedrock in the study area is considered in the EIAR to have a low to medium geological importance. Sensitive aspects included for evaluation in the EIAR are soil and bedrock. Agricultural and forestry land use are excluded due to the small scale of land affected. There is no interaction between the proposed development and a number of nearby geological heritage sites. Concrete will be sourced from Cappagh Quarry Irish Geological Heritage Site (WD013) but the amount will be very low. There is a designated Wetland of Biodiversity Importance (WD284) approximately 2km south-west of the proposed grid connection. However, it is stated in the EIAR that no element of the proposed grid connection interacts directly with this wetland area and there can be no direct impacts due the separation distance and the location of this area in forestry. Furthermore, the proposed development site does not drain to this wetland area.
- 9.10.12. The study area for soils and bedrock is the grid connection works area and immediately adjacent lands, as only direct effects are anticipated. Trial pits along the grid connection cable route indicate a predominance of silt/ clay, with bedrock at depth of 1.3m to 1.6m. No rock breaker is required for excavations and subsoil can be used for backfill in the cable trench. Trial pit investigations (15 in total) undertaken in 2014 for the Knocknamona Windfarm indicate a predominance of soft clay over bedrock. The operational Woodhouse Windfarm and Substation is in an area of well-draining soil overlying sandstone till with the underlying bedrock. There have been no material changes in the baseline for land or soils since the 2015 EIS, except for the authorisation of Knocknamona Windfarm. However, soils and subsoils have altered to some extent through land drainage or other land improvement works related to forestry, agricultural or the development of the Woodhouse Windfarm and Substation
- 9.10.13. Surface water hydrology comprises regional and local water catchments. The proposed grid connection is within the Blackwater (Munster) Catchment and the Colligan-Mahon Catchment (regional), and the Finisk\_SC\_010, Goish\_SC\_010 and

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Colligan\_SC\_010 Sub-Catchments. The Mountodell Stream is the nearest watercourse located at a distance of 280m from the underground cabling. The WFD Status of river waterbodies downstream of the proposed grid connection ranges from Poor (Brickey) to High (Finisk). The Lower Blackwater Estuary / Youghal Harbour and Brickey Estuary are located downstream and have a Moderate WFD Status. The Finisk and Goish rivers drain into the River Blackwater [Blackwater River (Cork/Waterford) SAC], Blackwater Estuary SPA, and the Blackwater River and Estuary pNHA). The Brickey River drains into Dungarvan Harbour (Dungarvan Harbour SPA and Dungarvan Harbour pNHA).

- 9.10.14. The site is within the Helvic Head and the Glenville Groundwater Bodies, both of which have been classified as 'good' status. Groundwater flow paths will be limited to 200 300m in length with flow direction largely influenced by local topography. The closest well (138m) supplies water to farm buildings. It is stated in the EIAR that no effects to local wells will occur due to the shallow nature of earthworks and the fact that no discharges to ground are proposed. There have been no significant changes in the baseline environment with regard to groundwater bodies and local aquifers since the 2015 EIS.
- 9.10.15. The cumulative study area for water is the WFD sub-catchments in which the proposed grid connection is located. The baseline for the grid connection study area is the Colligan-Mahon Catchment and the Blackwater (Munster) Catchment. A walkover survey of the grid connection site was completed to map any existing local drainage routes and any potential watercourse crossings.
- 9.10.16. There is no other roadside drainage or under road drainage present along the existing forestry track or proposed link road apart from a roadside drain where the consented Knocknamona Substation is located. Runoff from the existing forestry track is "over the edge" and there is no evidence of discrete surface water flow paths between the proposed development site and downslope river water bodies. Works areas are not located within any mapped fluvial or pluvial flood extent zones and are considered to be areas at low risk to flooding. Overall, there have been no significant changes in the baseline environment of the Knocknamona Windfarm site since 2014/2015.

- 9.10.17. There are designated sites located downstream of the proposed grid connection via surface water flow paths. The Finisk and Goish rivers drain into the River Blackwater which is designated as the Blackwater River (Cork/Waterford) SAC (4.3km downstream from grid connection), Blackwater Estuary SPA (19.5km), and the Blackwater River and Estuary pNHA (4.3km). The Brickey River drains to the Dungarvan Harbour SPA and pNHA (9.1km). Both the flow paths have a natural buffering capacity to attenuate surface water runoff from the proposed grid connection.
- 9.10.18. The evaluation of Air in the EIAR relates to the air we breathe, levels of noise, vibration and electromagnetic fields. There is a high level of air quality in this upland rural area and noise sources are natural and manmade, consisting mainly of windborne noise, birdsong, farm machinery, local traffic and the existing Woodhouse Windfarm. Low levels of electromagnetic fields (EMF) occur from electric equipment and low, medium and high voltage overhead electricity lines, overhead telephone lines, signals from existing telecommunications masts and underground communication cables. The proposed grid connection therefore has the potential to impact on local air conditions through traffic-based pollutants, construction dust emissions, noise and vibration emissions, and EMF emissions.
- 9.10.19. The study area for construction dust, noise and vibration is houses within 350m of construction works areas and within 50m of the Local Roads L60741 and L6074 as far as Woodhouse Windfarm site entrance and the Woodhouse Windfarm access roads to be used for delivery of construction materials and turbine component loads. For cumulative effects, the study area extends to 700m from the grid connection construction works. The operational noise study area includes houses within 1km of the proposed grid connection. Operational EMF is assessed within 100m from the grid connection for the proposal alone, and 200m cumulatively.
- 9.10.20. A baseline noise survey was undertaken in April and June 2023 at the nearest dwelling to Woodhouse Substation (H1) and at a distance from the substation (H2). Daytime ambient noise levels at H1 ranged from an average of 51 to 53 dB(A) and the night time ambient noise levels averaged 49 dB(A). Daytime ambient noise levels at H8 ranged from an average of 39 to 45 dB(A) and the night time ambient noise levels of 32 to 33 dB(A). The measured noise levels

at H1 exceed the EPA's NG4 criteria of "Area of Low Background Noise" and H8 measured noise levels do not.

- 9.10.21. The nearest house to Woodhouse Substation (330m) and the next nearest dwelling (460m) are owned by landowners involved in the development. The nearest 3<sup>rd</sup> party house is at a distance of 550m from the construction works area for the proposed grid connection. Levels of air quality and EMF have not changed significantly since previous assessments in 2015 and 2021. Noise and shadow flicker from the operational Woodhouse Windfarm were taken into account in the 2021 EIAR. No new houses or properties have been constructed within 1km of the authorised Knocknamona Windfarm turbines since the 2021 EIAR. It is assumed that the receiving environment will include the construction works for Knocknamona Windfarm.
- 9.10.22. The study area for GHG emissions is Ireland's climate budget. The climate assessment is divided into a greenhouse gas assessment and a climate change risk assessment. Embodied GHG emissions were calculated using the TII Carbon Tool (2022b) and the resulting GHG emissions are estimated to be 212 tCO2e, which is equal to 0.0071% of the 2030 Electricity sectoral emissions ceiling of 3 MtCO2e. In terms of climate change vulnerability assessment, the proposed development is considered to be highly sensitive to flooding and landslides. The site is within Flood Zone C where the probability of flooding is low and there are no historic landslide events within the area of the proposed development. The exposure of the proposed development to landslides is therefore low.
- 9.10.23. Table 11.9.1 below summarises the likely significant effects of the proposed development on Land, Soil, Water, Air and Climate as identified in the EIAR.

Potential Land, Soil, Water, Air and Climate Impacts	Potential Effects in the absence of Mitigation	Mitigation and Monitoring Measures	Residual Impact
	Const	ruction	
Land and Soils: Soils & Bedrock	- Imperceptible impacts in terms of excavation and relocation of soils, subsoil and bedrock; soil and subsoil compaction and erosion; and contamination by oils, fuels and chemicals.	<ul> <li>Construction works will be carried out in accordance with the Environmental Management Plan.</li> <li>Water quality protection scheduling – underground cable will be constructed in 50m sections to reduce potential for</li> </ul>	No significant residual impacts.
Water: River Waterbodies (Quantity, quantity and WFD status) Groundwater bodies (Quantity, quantity and WFD status) Designated sites (water dependent habitats and ecosystems)	<ul> <li>Slight potential for impacts on surface water due to sediment entrainment.</li> <li>Imperceptible surface water quality impact due to contamination by fuels, oils and chemicals and from cement based compounds on river waterbodies or downstream designated sites.</li> <li>Imperceptible groundwater quality impacts due to contamination by fuels, oils and chemicals and cement based compounds.</li> <li>Grid connection will not impact upon any groundwater body as it will not cause a deterioration of the Good status of the groundwater body.</li> </ul>	<ul> <li>sediment laden run-off.</li> <li>Invasive species – steam cleaning of machinery entering site and implementation of biosecurity measures.</li> <li>Suspended solids – Installation of silt fences / silt trap arrangements and temporary blocking of roadside drain at Knocknamona Windfarm Substation.</li> <li>Covering of temporary spoil heaps with polyethylene sheets and no excavation, substation or link road works during heavy rainfall.</li> <li>Fuels &amp; oils – stored in designated location in bunded, locked storage</li> </ul>	- Imperceptible residual effects.
Air:	<ul> <li>Imperceptible increase in airborne dust.</li> <li>Neutral deterioration in ambient air quality due to traffic derived pollutants.</li> <li>Imperceptible increase in ambient noise levels.</li> <li>Neutral vibration damage to buildings or internal nuisance to residents.</li> </ul>	containers. Fuel will be brought to the site by a 4x4 in a double skinned Bowser with drip trays. Plant and machinery will be regularly inspected for leaks and fitness for purpose. Spill kits will be readily available and personnel will be trained to deal with accidental spills.	- No significant residual impacts.

		- Cements - no batching on site and large volumes of cement will not be present on site at any time. No discharge of concrete washout waters to any artificial stream or watercourse, and concrete washout bags will be placed under the chute to catch washout waters. Weather forecast will be used to plan concrete pouring for dry days.	
Climate:	Minor adverse impact from increases in GHG emissions from embodied emissions and emissions from vehicles and machinery.	No mitigation	No significant residual impacts.
	Operatio	nal Phase	
Soils & Bedrock	- No effects are expected during the operational stage as no groundworks are anticipated during this phase.	No mitigation	- No significant residual impacts.
Water	No sources of impacts in relation to the operational phase due to the minimal maintenance activities mainly within the hardcore substation compound, minimal use of vehicles and no groundworks expected to occur.	No mitigation	- No significant residual impacts.
Air:	<ul> <li>Imperceptible increase in ambient noise levels.</li> <li>Imperceptible increase in ambient EMF.</li> <li>Neutral vibration damage to buildings or internal nuisance to residents.</li> </ul>	No mitigation	- No significant residual impacts.
Climate:	- Increase in renewable electricity generation (no impact).	No mitigation	- No adverse residual impacts.
Do Nothing:			

- If the proposed grid connection does not proceed, the effects on the environment will not occur, and the baseline environment will only change in line with trends.

- Brickey\_010, Brickey\_020, Goish\_010 and Goish\_020 River Sub Basins may achieve Good Status in the coming years which means catchment pressures would have eased or have been addressed.

- Baseline levels of dust are likely to remain at existing levels and baseline noise would increase in line with trends. Electronic equipment and radio frequency technology will become more present and power infrastructure will increase; however, EMF limits will remain significantly lower that ICNIRP standard limits.

- The renewable generation for Knocknamona Windfarm will not be transported to the National Grid and the subsequent benefits of GHG offsets will not occur.

#### Decommissioning:

- No effects are expected on soils & bedrock and water during any decommissioning of the cabling as no groundworks are anticipated during this phase.

#### **Cumulative Effects:**

- Potential for cumulative effects only relates to those soils affected by the grid connection development. There is a limited extent of overlap between the proposed grid connection and authorised windfarm. No further excavation or relocation of soils is expected to take place and Woodhouse.

- Cumulative effects downstream of the Goish and Finisk sub-catchments (i.e. in the Blackwater River itself) are not likely due to large regional catchment area of the Blackwater River (i.e. very large dilution effects) and the small scale of the proposed grid connection works.

- No likely cumulative effects on surface water, groundwater and WFD status.

- Grid connection can only affect groundwater bodies in which the development is located – only developments within 300m of grid connection construction works area can contribute to cumulative groundwater effects.

- Potential for cumulative impacts minimised through the implementation of best practice mitigation measures at the grid connection site along with the Environmental Management Plan and Sediment Control Plan for the Knocknamona Windfarm, which includes cement control, and fuel management and spill/leak response measures.

- Cumulative impacts on Air when authorised Knocknamona Windfarm and Woodhouse Windfarm and Substation are taken into account will not be greater than imperceptible to slight. There is limited overlap, construction works will be temporary, and there will be small increases in cumulative construction dust, noise, vibration and EMF. Woodhouse is operational and there will be an imperceptible increase in ambient noise from Woodhouse Substation.

- Beneficial and significant cumulative impact from increases in renewable electricity generation.

Table 9.9.1 – Consideration of Impacts, Significance and Mitigation Measures for Land, Soil, Water, Air and Climate

### The Assessment: Direct and Indirect Effects

- 9.10.24. I have examined, analysed, and evaluated Chapters 8, 9, 10 and 11 of the EIAR, all of the Appendices to these Chapters and the associated Environmental Management Plan and Water Framework Directive Assessment. I am satisfied that the applicant has provided sufficient survey data to enable assessment of likely effects on land, soil, water, air and climate. Further, having regard to the detailed assessment carried out, the location of the development, the concurrent development in the area of the site and the proposed mitigation measures, which are standard good practice measures and which are proven to be effective in particular at preventing adverse effects on water flows, hydromorphology and water quality, I am satisfied that no significant, adverse direct, indirect, or cumulative effects on soils, geology and hydrogeology; hydrology; air quality; climate; and noise and vibration will arise as a consequence of the development.
- 9.10.25. The EIAR considers the sensitive aspects to be evaluated are soils and bedrock, river water bodies, groundwater bodies, designated sites, air (air quality, levels of noise, vibration and EMF) and climate. Other aspects under the Land, Soil, Water, Air and Climate were scoped out for further assessment because the effects of the proposed grid connection, individually and in combination with other scoped in plans and projects, would be neutral or there would be no likely effects, e.g. agricultural and forestry land use and geological heritage sites, wetlands of biodiversity importance.
- 9.10.26. Impacts on soils & bedrock could potentially occur from excavations potentially causing erosion, compaction, drainage and contamination. However, I would be in agreement that there will be no likely or perceptible impacts in this regard. Most of the proposed works will take place along existing forestry/ windfarm roads and within the existing Woodhouse Substation. The trench for the cabling will be shallow and narrow and all effects on soils will be relatively localised and temporary.
- 9.10.27. I would also concur that impacts on river waterbodies, groundwater bodies, and designated downstream water dependant sites would be imperceptible at worst when mitigation measures are implemented. The nearest watercourse is 280m from the proposed cabling and there are no local surface water or groundwater abstractions from local streams and no springs in the vicinity supplying water. The

proposed grid connection will not impact on any waterbody nor cause a deterioration of the high status/ attainment of good WFD status. No cumulative impacts on water are likely due to the different sub basins draining the site, implementation of the Environmental Management Plan and Sediment Control Plan for the Knocknamona Windfarm, and measures such as the storage of these oils/fuels/chemicals in bunded containers.

- 9.10.28. There will be insignificant impacts on the good quality of the air locally and very low increases in noise during construction and operational phases. I would be in agreement that there is a negligible potential for dust soiling or human health impacts as a result of earthworks, construction or trackout activities given the scale and location of the proposed works. Noise emissions from additional plant at the substation will not be discernible at the nearest dwelling and the levels of EMF will be substantially below guideline limits. I agree that cumulative impacts with the windfarm works will be imperceptible to slight due to the limited extent of overlap, the temporary duration of construction works, and the small level of increases in cumulative construction dust, noise, vibration and EMF. Woodhouse Windfarm and Substation will not contribute to any construction dust, construction noise or vibration and operational impact will be minimal.
- 9.10.29. The only significant impact arising from the proposed development is the beneficial increase in renewable electricity generation when the proposed grid connection is considered cumulatively with the authorised Knocknamona Windfarm. The authorised Knocknamona Windfarm will avoid the emission of 36,000 tonnes of greenhouse gases per annum which would have resulted from generating the same amount of electricity by fossil fuel plant.

### **Conclusion**

- 9.10.30. Having regard to the foregoing, it is considered the main significant direct and indirect effects on land, soils, water, air and climate are as follows:
  - Beneficial cumulative impact of the proposed grid connection and Knocknamona Windfarm on **Climate** through the supply of renewable electricity to the equivalent of 22,857 homes thereby reducing emissions from fossil fuel burning for energy production every year for the lifetime of the windfarm.

# 9.11. Material Assets, Cultural Heritage and the Landscape

### Issues Raised

- 9.11.1. It is considered in a third-party appeal that catchment study area indicated in the landscape and visual assessment is totally inadequate and fails to recognise or address the fundamental issue arising from the linkage of the two wind farms. The impact of the substation on the landscape, and the inclusion of an additional building, is considered to further exacerbate the adverse landscape impacts.
- 9.11.2. It is noted by the Planning Authority that the previously assessed route is c.12km to Dungarvan Substation and the current proposal is for a 2km connection largely within existing and consented sites. The previously upgraded haul route can be used, rather than carrying out significant civil works to the east of the site. Subject to mitigation measures in respect of *inter alia* sequencing/ traffic management, it is considered that there is no difficulty with the findings regarding impacts on the road network.
- 9.11.3. The Planning Authority also note that the appeal site is located within areas of visually sensitive and visually vulnerable landscape; however, cumulative impacts on landscape/ visual amenity will not be significant. Furthermore, it is stated that environmental impacts relating to cultural heritage are not significant, as there are no designated assets of architectural or cultural heritage significance within the proposed development site.

### Examination, Analysis and Evaluation

- 9.11.4. Chapters in the EIAR pertaining to materials assets, cultural heritage and the landscape include Chapter 12 Material Assets, Chapter 13 Cultural Heritage, and Chapter 14 Landscape. Associated appendices include the following:
  - Appendix 12.1 Evaluation of Potential Impacts to Material Assets
  - Appendix 12.2 Traffic & Transport Assessment Report
  - Appendix 12.3 Structural Inspection of Buried Structures
  - Appendix 12.4 Pavement Condition Survey
  - Appendix 13.1 Evaluation of Potential Impacts to Cultural Heritage

- Appendix 13.2 Architectural Heritage Impact Assessment along construction traffic haul routes
- Appendix 14.1 Evaluation of Potential Impacts to Landscape
- 9.11.5. The road network immediately surrounding the appeal site comprises mostly of lightly trafficked local roads. The nearest regional road is the R671 which links to the N72 and N25 national roads. A number of bridges, culverts and drainage pipes are situated along the section of the R671. There are overhead high voltage transmission lines connecting to Woodhouse Substation, as well as local services comprising of lower voltage overhead lines and overhead telephone lines alongside road boundaries.
- 9.11.6. The only sensitive aspect for material assets included for detailed evaluation in the EIAR is public roads. Other aspects such as the haul route as assessed as neutral for reasons including the very low volumes of traffic associated with the development and the absence of works along these roads. There will also be no likely impacts on the electricity transmission system, the local electricity network and the local Eir network. No Irish Water underground services or local Group Water Schemes are situated close to the proposed development and there will be no blockage of any communication signal paths or interference with any television reception.
- 9.11.7. The study area for public roads extends from Clogh Crossroad on the R671 to the L6074 and L60741 and along the existing Woodhouse Windfarm entrance and access road to Woodhouse Substation. Construction materials delivery for the proposed grid connection will occur along the L6074 from its junction with the R671 at Clogh Crossroads as far as the turnoff onto the L60741 and as far as the Woodhouse Windfarm site access. The cumulative study area also includes the L2018 and L2019 at Cappagh Quarry. Deliveries and other construction related traffic for Knocknamona Windfarm will use different haul routes to the proposed grid connection along the L2024, L2022 and L6077 local roads, all of which approach the windfarm from the east. The only overlap is along the L2018 and L2019 at Cappagh Quarry.
- 9.11.8. A pavement condition survey of local roads was carried out and these roads were found to be in good or very good condition apart from the L-6074 at Keereen Upper,

which is rated as poor. There is a culvert under the L-6074 but no weight restriction are in place. There is no evidence of any settlement or failure of the road surface.

- 9.11.9. Road boundaries consist of a mix of hedgerows and simple mounded embankments aligned beyond drainage channels in many roadside verges. No works are required to road boundaries. Directional drilling beneath the road structure will be required at one location under the L6074 in Keereen Upper.
- 9.11.10. In terms of passage of time for public roads, it is stated in the EIAR that some road widening, and drainage works were carried out by the local authority on the L2024; however, these works are not considered material. The other main change with respect to material assets is that Woodhouse Windfarm and Substation are now operational.
- 9.11.11. The appeal site is located to the north-west of the Drum Hills in an undulating and upland landscape between the Waterford coast to the east and the Blackwater River valley to the west. The Blackwater valley is characterised by demesnes and woodland on valley sides. The historic villages of Villierstown and Aglish are located to the west of the Knocknamona Windfarm site.
- 9.11.12. The study area for recorded legally protected sites (construction stage) is 500m from the grid connection construction works area. The operational stage study area is 2km and 4km from the proposed additional plant at Woodhouse Substation. A study area is also included for architectural heritage within 100m of the haul route for construction materials for the proposed grid connection.
- 9.11.13. There is nothing of archaeological or cultural heritage significance denoted on historic OS mapping in proximity to the proposed grid connection site. There is a total of 13 sites within 2km of the proposed grid connection. This includes two Recorded Legally Protected Sites within 500m (WA030-054 Ringfort – unclassified and WA030-055 Ringfort-rath). A further 11 Recorded Legally Protected Sites are located within 2km of Woodhouse Substation comprising an enclosure, road/ trackway, 6 no. Fulacht Fia, a castle, and two burnt mounds.
- 9.11.14. There are no previously recorded protected sites within the 100m study zone of the haul route, and no bridges of historic or archaeological significance will be impacted by the haul route works for Knocknamona Windfarm. In terms of the cumulative study area, there are no cultural heritage sites within the footprint of the authorised

Knocknamona Windfarm. No new sites have been designated as Recorded Monuments, and no other material changes in the baseline environment have occurred since 2015.

- 9.11.15. In terms of architectural heritage along construction traffic haul routes, there are 18 no. features of interest, six of which are recorded monuments, four are protected structures, and the remaining eight are structures of cultural heritage interest. There are no architectural heritage features within the construction footprint of Knocknomona Windfarm apart from a small section within the grounds of Barranstook Demesne. However, no part of the project is close to any mapped demesne buildings or features.
- 9.11.16. The study area for construction stage impacts on landscape and visual amenity is a 500m corridor from the grid connection development area. A 2km study area is used for operational stage effects. For the cumulative assessment, a 1km corridor for the grid connection is used and a 4km radius is applied for cumulative operational stage effects. The character of the study area is described as upland rural in nature with forested ridges and upper slopes of the Drum Hills within the central study area giving way to sloping, rolling farmland on descending slopes. There are three condensed clusters of 'High Sensitive' areas within the 4km cumulative study area, as designated in the Waterford City and County Development Plan, 2022-2028. The operational Woodhouse Windfarm also influences the surrounding landscape character. Visual receptors include local residents and users of the surrounding area. There is a single scenic route designation within the study area. The R671 is included within the cumulative study area for visual amenity. The felling of forestry is among the considerations for passage of time.
- 9.11.17. Table 9.10.1 below summarises the likely significant effects of the proposed development on Material Assets, Cultural Heritage and the Landscape as identified in the EIAR.

Potential Material Assets, Cultural Heritage and Landscape Impacts	Potential Effects in the absence of Mitigation	Mitigation and Monitoring Measures	Residual Impact
	Const	ruction	
Material Assets (public roads)	- Neutral potential for damage to local road pavements, boundaries and buried structures.	- Mitigation in the form of traffic cones and speed restrictions, abnormal load escorts and signage will be deployed as required.	No significant residual impacts.
Cultural Heritage (Recorded Legally Protected Sites)	- No potential for complete or partial destruction.	- Environmental Clerk of Works will monitor the compliance of the construction works with the EMP, and will engage specialist environmental consultants, such as ecologists, hydrologists and archaeologists.	No significant residual impacts.
Architectural Heritage (along construction traffic haul routes)	<ul> <li>Neutral potential for destruction of roadside vernacular structures and bridges through collision with delivery vehicles.</li> <li>Imperceptible potential for vibration impact on roadside vernacular structures and bridges from passing delivery vehicles.</li> </ul>	- Mitigation in the form of traffic cones and speed restrictions, abnormal load escorts and signage will be deployed as required.	- No significant residual impacts.
Landscape Character	<ul> <li>Imperceptible potential for impacts from alteration or division of land cover and vegetation patterns.</li> <li>Slight potential for impact from intensification of activity causing a reduction in rural tranquillity.</li> </ul>		No significant residual impacts.
Visual Amenity	- Slight potential for impacts on visual amenity from intensification of activity		No significant residual impacts.

	causing visual disharmony, clutter or complexity.				
Operational Phase					
Material Assets (public roads)	- No potential for impacts to public roads.		- No significant residual impacts.		
Cultural Heritage (Recorded Legally Protected Sites)	<ul> <li>Neutral impact on setting – above ground structures in substation compound would be screened by landform.</li> </ul>		- No significant residual impacts.		
Architectural Heritage (along construction traffic haul routes)	<ul> <li>Neutral potential for destruction of roadside vernacular structures and bridges through collision with delivery vehicles.</li> <li>Imperceptible potential for vibration impact on roadside vernacular structures and bridges from passing delivery vehicles.</li> </ul>		- No significant residual impacts.		
Landscape Character	<ul> <li>Imperceptible potential for impact from intensification of built development and reduction in the integrity of rural landscape patterns.</li> <li>Slight potential for impact from intensification of activity causing a reduction in rural tranquillity.</li> </ul>		No significant residual impacts.		
Visual Amenity	<ul> <li>Imperceptible potential for impact on visual amenity from the addition of new features or loss of existing features causing visual disharmony, clutter or complexity.</li> <li>Imperceptible potential for impact on visual amenity from intensification of activity causing visual disharmony, clutter or complexity.</li> </ul>		No significant residual impacts.		

### **Do Nothing:**

- Effects on the environment will not occur, and the baseline environment will only change in line with the trends.

#### **Decommissioning:**

It is not intended to decommission the proposed electricity infrastructure.

### **Cumulative Effects:**

- No potential for cumulative impacts on public roads.
- Not significant or neutral cumulative impact on Recorded Legally Protected Sites.
- No potential for cumulative impacts on architectural heritage along construction traffic haul route.
- Slight potential for cumulative impacts on landscape and visual amenity during construction, (imperceptible during operation).

Table 9.10.1 – Consideration of Impacts, Significance and Mitigation Measures for Material Assets, Cultural Heritage and the Landscape

### The Assessment: Direct and Indirect Effects

- 9.11.18. I have examined, analysed, and evaluated Chapters 12, 13 and 14 of the EIAR, all of the Appendices to these Chapters and the Environmental Management Plan. I am satisfied that the applicant has provided sufficient survey data to enable assessment of likely effects on archaeology, architectural heritage and cultural heritage; traffic and transport; material assets; and landscape and visual. Further, having regard to the detailed assessment carried out, the location of the development, the concurrent development in the area of the site and the proposed mitigation measures, which are standard good practice measures and which are proven to be effective in particular at preventing adverse effects on archaeology and disruption to traffic/ transport and utilities, I am satisfied that no significant, adverse direct, indirect, or cumulative effects on the environmental factors will occur in the long term.
- 9.11.19. In terms of material assets, the only sensitive aspect identified in the EIAR is public road and the potential for damage to local road pavements, boundaries and buried structures. I concur that other aspects of material assets will not be significantly affected by the proposed development. The electricity transmission network will be switched out for the duration of commissioning and other radial networks will compensate for this temporary loss. There are no local electricity overhead lines in the locality and there will be no impact on an underground cable serving two residences at Keereen Upper.
- 9.11.20. Existing traffic volumes in the surrounding road network are low and the proposed grid connection will only require up to three loads per day. I agree that the impact on local road pavements, boundaries and buried structures will be insignificant. No public roads will be widened and all deliveries will be within allowable axle weights. A Traffic and Transportation Assessment Report is appended to the Material Assets chapter of the EIAR. This report concludes that roads and junctions are more than adequate to accommodate the worst-case construction traffic volumes associated with the works. It is considered that a road pavement and road boundary condition survey should be agreed between the applicant and Roads Department of Waterford City & County Council prior to commencing the works. A temporary signage/ traffic management drawing has been drawn up for the existing road crossing/intersection crossing the L6074. This can be implemented by way of condition.

- 9.11.21. There is no potential for significant impacts on archaeology, architectural heritage and cultural heritage during construction of the proposed development. There are no Recorded Legally Protected Sites in the construction works area, and any new above-ground structures only relate to additional apparatus within Woodhouse Substation. Thus, there will be no visual impact on the setting of any heritage site. Notwithstanding this, an Environmental Clerk of Works will monitor the compliance of the construction works with the Environmental Management Plan, and will engage archaeologists, as necessary.
- 9.11.22. A total of 18 architectural heritage sites were identified along the construction traffic haul route. I would agree that there will be no significant impact on these features having regard to the sufficient width and strength of bridges, allowable axle weights, and the established use of the route by HGVs. Any abnormal loads will be escorted and rear steer assistance will be employed to avoid bridge parapets, if necessary. Traffic cones, speed restrictions, and signage will be deployed as necessary.
- 9.11.23. The landscape surrounding the proposed development has a medium-low sensitivity, with land cover being modified. I concur that the small scale of the proposed development will only add marginally to the overall intensity and human activity during construction and will be very occasional during operation. The footprint of the substation compound will not be increased and the cable trench will be fully reinstated. The landscape and visual impacts of the proposed development will therefore be imperceptible to slight. Overall, the effects along the cable route will be brief and fully reversible through reinstatement.

### Conclusion

- 9.11.24. Having regard to the foregoing, it is considered the main significant direct and indirect effects on material assets, cultural heritage and the landscape are as follows:
  - No greater than slight potential for impacts on Material Assets and Architectural Heritage (along construction traffic haul routes) that will be mitigated by traffic cones and speed restrictions, abnormal load escorts and signage, as necessary.

# 9.12. Risks Associated with Major Accidents and/ or Disasters

- 9.12.1. The risks of major accidents and/ or disasters is assessed in Chapter 5 of the EIAR. There are no Seveso sites in proximity to the appeal site that could present a risk of major accident. The closest Seveso site is at a distance of 50km at Ferrybank, Co. Waterford.
- 9.12.2. The proposed development is assessed in the EIAR for its potential to be affected by natural disasters in the form of flooding and land slippage. The grid connection site is not in a fluvial or pluvial flood zone and is wholly located in mapped Flood Zone C, where the probability of flooding is low. Moreover, no flood events have been recorded in the vicinity of the appeal site. A walkover survey of the site was also conducted to map local drainage routes and potential watercourse crossings. There are no manmade drains of any significance and very limited forestry and agricultural drainage in this area.
- 9.12.3. The site was also examined for ground stability and no evidence was found of stress indicators and slope failure. Rock was encountered relatively close to the surface along much of the grid connection route, and it was concluded that the potential for trench excavations to cause slope instability will be very low. Overburden from excavations will be temporarily stored in shallow mounds or layers and excavations will be carried out 50m at a time. It is also noteworthy that there is an absence of peat along the route. The consequences of any natural disaster occurring is limited due to the low number personnel working on site and the absence of streams or rivers within the site boundary.
- 9.12.4. The grid connection cabling is to be placed underground and therefore not susceptible to fire. The electrical apparatus, to be located within Woodhouse Substation is not at risk from fire because Woodhouse Substation is a hardcored area surrounded by grassland and adjacent to other hardcore areas (public road and Woodhouse Windfarm roads) which effectively act as a fire break and therefore there is minimal fuel to support the spread of wildfire to the substation compound. Similarly for any wildfire on the windfarm, the forestry roads and windfarm roads and hard core areas around the turbines effectively act as fire breaks within the windfarm. Therefore the development is not vulnerable to wildfire risk.

- 9.12.5. Extreme weather events as a result of climate change will not affect the proposed underground cable. The additional apparatus in Woodhouse Substation is designed to withstand temperature variability and exposure in the open countryside. Thus, the proposed development is not especially vulnerable to the effects of climate change.
- 9.12.6. Overall, I am satisfied that given the nature of the proposed development, and the mitigation measures proposed, together with the low-medium probability of a major accident/ natural disaster, it is not likely that significant effects on the environment would arise in this regard. There are no cumulative impacts that would combine to result in significant residual environmental impacts.

# 9.13. Cumulative Impacts and Environmental Interactions

- 9.13.1. The proposed grid connection is part of a whole windfarm project which includes the authorised Knocknamona Windfarm (PL93.244006) comprising 8 no. turbines, a meteorological mast, access roads, electrical substation and ancillary works. This permission was amended under ABP-309412-21 to increase the maximum tip height of the turbines from 126m to 155m. Permission was also granted in 2022 (ABP-314219-22) for works at four junction/ bend locations on local roads comprising the wind farm haul route.
- 9.13.2. A scoping exercise was carried out of projects and activities for inclusion in cumulative evaluations. This included the whole Knocknamona Windfarm project including authorised windfarm (as amended) and the proposed grid connection, as well as the proximate Woodhouse Windfarm and Woodhouse Substation, which are operational, and any other relevant projects or activities. The authorised Knocknamona Windfarm, Woodhouse Windfarm and Woodhouse Substation are included for the cumulative evaluations for each environmental factor. The effects of passage of time since previous assessments is presented in the cumulative baseline information for each sensitive environmental aspect. In the event of a new impact pathway being identified for the current grid connection proposal, this impact pathway was examined for Knocknamona Windfarm to determine the cumulative impact.

- 9.13.3. A total of 44 other projects within 17km of the proposed development were identified and scoped out for potential cumulative effects. These projects were largely scoped out because they did not fall within the timeframe boundary or were already constructed. Other reasons were the scale and nature; the separation distances and the resulting dilution factor; and the compact surface expression of the developments in question. Forestry and agriculture form part of the baseline environment and therefore these activities were not scoped in for cumulative assessment. Forestry and agriculture are known pressures for downstream waterbodies, groundwater bodies and designated sites. The proposed grid connection has the potential to impact on downstream waterbodies through sedimentation and contamination by fuels, oils and cements. However, when the scale and nature of the proposed grid connection are considered cumulatively with forestry activities, significant cumulative impacts are unlikely to occur provided that best practice harvesting measures are implemented and grid connection works are sensitively scheduled.
- 9.13.4. Reference is made in third party appeals to Lyrecarrigia Windfarm and Scart Mountain Windfarm. It is submitted that these windfarms should not have been scoped out for consideration of cumulative effects. The permitted Lyrenacarriga Windfarm site is approximately 11km west and the proposed Scart Mountain Windfarm would be 11km north-west of the of the Knocknamona Windfarm site. These windfarms were scoped out for cumulative evaluation due to the separation distances and the small scale of the proposed grid connection works during the construction phase. During the operational phase, the compact surface expression of additional electrical equipment proposed for an existing substation are considered negligible and therefore cumulative impacts are not likely. Ballycurreen Windfarm was also considered for cumulative effects; however, this development is c. 12km to the south-east and in a separate sub-catchment.
- 9.13.5. In terms of population and human health, cumulative impacts on the grid connection and Knocknamona Windfarm is assessed to be neutral (negative) and slight to moderate positive. Positive cumulative impacts will accrue from the payment of the community benefit scheme and commercial rates associated with the operational windfarm. There will be no noticeable increase in traffic or local employment when Woodhouse Windfarm and Woodhouse Substation are considered for cumulative

impact. There will also be a low number of transient people (e.g. road users, walkers, farm workers) in the cumulative study area.

- 9.13.6. The cumulative impacts of the proposed grid connection and the Knocknamona Windfarm on biodiversity were assessed as not being greater than imperceptible. Impacts on terrestrial habitat were previously assessed as not significant and there will be minimal operational activities outside of 'buildings and artificial surfaces'. Woodhouse Windfarm and Substation are already constructed, and surrounding habitat has fully vegetated. Impacts on birds where previously assessed in 2016 and 2022 as not significant, and with the effects on birds from the grid connection no greater than imperceptible, the combined impact of the whole Knocknamona windfarm project will not be significant. For reasons similar to the above, there is no potential for cumulative disturbance/ displacement impacts when Woodhouse Windfarm and Substation are taken into account.
- 9.13.7. Impacts to bats were previously assessed as not significant, as no important feeding corridors will be affected. A Sediment & Erosion Control Plan will be implemented during construction of the windfarm and the cumulative impact on otter will not be greater than imperceptible. Disturbance effects for other mammals during construction of the windfarm and grid connection will be reversible. When Woodhouse Windfarm and Substation are taken into account, cumulative impacts will be imperceptible because these developments have already been constructed and habitats have fully revegetated.
- 9.13.8. There is an absence of watercourses within the construction works area for the grid connection and Knocknamona Windfarm, and with the implementation of the Sediment & Erosion Control Plan for the windfarm project, the effect of the overall project on aquatic habitats and species will not be significant. There will be no additional cumulative impacts when Woodhouse Windfarm and Substation are included. There is no requirement for in stream works for any of the projects.
- 9.13.9. With respect to cumulative impacts on water, it is noteworthy that most of the Knocknamona Windfarm site and the grid connection site are split across different river sub basins, and this reduces the overall potential for cumulative impacts. Implementation of the Environmental Management Plan and Sediment Control Plan for the windfarm will further minimise cumulative impacts on river bodies,

groundwater and downstream designated sites. Woodhouse Windfarm and Substation are unlikely to contribute to cumulative impacts due to their constructed state, and due to the unlikelihood of cumulative contamination impacts to river water bodies. For similar reasons to those highlighted above, cumulative impacts on soils and bedrock will not be greater than imperceptible. This is due mainly to the limited extent of overlap and the as-built nature of Woodhouse Windfarm and Substation.

- 9.13.10. Cumulative impact on the proposed grid connection and Knocknamona Windfarm on Air is assessed as not being greater than imperceptible to slight. There will be small level increases in cumulative construction dust, noise, vibration and EMF. The additional equipment installed at Woodhouse Substation will give rise to an imperceptible increase in ambient noise. Furthermore, there is an absence of any local residents or community facilities within 100m of the grid connection and Knocknamona Windfarm, or the Woodhouse Windfarm and Substation.
- 9.13.11. Cumulative impacts on climate are assessed in reference to national targets and objectives. Embodied emissions from construction materials and activities and emissions from vehicles and machinery during construction and operation, are evaluated in the EIAR as minor adverse and non-significant. The increase in renewable energy generation from Knocknamona Windfarm, which will be enabled by the proposed grid connection, will offset electricity generation by fossil fuels and I would agree that this is a beneficial and significant impact.
- 9.13.12. In terms of traffic, there is no potential for cumulative impacts with the Knocknamona Windfarm development as the proposed grid connection will use different local roads, except for the overlap for access to Cappagh Quarry. I would agree that the impact on this overlap by construction vehicles accessing both elements of the development at the same time would be insignificant. As Woodhouse Windfarm and Woodhouse Substation have already been constructed, cumulative impacts with their operational phase will be neutral.
- 9.13.13. There are no Recorded Legally Protected Sites within the construction works area for Knocknamona Windfarm and the proposed grid connection, and therefore no cumulative effects will occur. Cumulative impacts in terms of setting will be neutral having regard to the minor scale of additional electrical equipment to the existing Woodhouse Substation. Road surfaces along the haul route are generally good and

traffic volume increases will be negligible. Therefore, cumulative impacts on architectural heritage features along the haul route will be no greater than imperceptible.

- 9.13.14. There is slight potential for cumulative impacts on landscape character and visual amenity during construction due to the grid connection and Knocknamona being constructed concurrently and being of a larger scale together. Cable trenches will be reinstated, and the surrounding area is already modified, with landscape generally being of medium-low sensitivity. Furthermore, the proposed grid connection works will only add marginally to the overall construction activity on site and the landscape and visual impact of the authorised windfarm has already been assessed as not significant. Woodhouse Windfarm and Substation have already been constructed and operational activities at these sites are of a very low scape and intensity.
- 9.13.15. Chapter 15 of the EIAR sets out the cross-factor interactions between environmental factors during the construction and operational stages of the proposed development. The key interactive impacts are as follows:
  - Population and Human Health potential interactive impacts through reduction in tourism revenue from noise, dust and visual impacts; water effects to local wells and springs; impact on health from increase in ambient dust, noise and EMF; and impact on health from increased risk of road traffic accident. These interactive affects are no greater than imperceptible.
  - Biodiversity effects on soils, water and air could result in potential cross-factor effects through habitat loss, fragmentation or degradation, loss of flora species, physical injury, aquatic habitat degradation, and disturbance and displacement. These interactive affects are no greater than imperceptible and will be further mitigated by measures set out above.
  - Water potential for decreases in water quality caused by effects to soils. These interactive affects are no greater than imperceptible post mitigation.
  - Air potential for increased ambient levels of dust caused by effects to soils and increased traffic volumes. Effects will be no greater than imperceptible.

- Climate potential for increases in GHG emissions caused by affects to soils and increased traffic volumes. Effects will be no greater than minor adverse and nonsignificant.
- Cultural Heritage potential for impacts on visual setting of features caused by effects to landscape. Effects would be neutral.
- Landscape effects to land and soils (change of land cover, excavations and stockpiling) and biodiversity (change of land cover). Effects will be no greater than imperceptible.
- 9.13.16. I agree that the likely significance of these combined and interrelated impacts has been assessed, and mitigated where required, within the individual assessment chapters. Overall, I would be satisfied with the methodology provided within the EIAR for interactions and cumulative assessment. Construction stage interactions will mostly be short term and any mitigation for one environmental factor can be applicable to other environmental factors. The subject development is assessed with all the other relevant plans and projects in the wider area, and overall, this provides for a robust and complete assessment of the proposed scheme by itself and any cumulative interactions with projects and activities in the area. I am therefore satisfied that sufficient information has been acquired to fully inform the cumulative assessment of the proposed development and other relevant projects and activities.

### 9.14. Reasoned Conclusion

- 9.14.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the developer, and the submissions from third parties and from 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:
  - Moderate cumulative and positive impact on Population and Human Health due to improvements in the local economy arising from the establishment of the Knocknamona Windfarm community benefit scheme.
  - Imperceptible cumulative **Biodiversity** impacts with authorised Knocknamona Windfarm on instream aquatic habitat quality and flow regimes. Mitigation will

nonetheless be implemented to protect water quality through works scheduling, invasive species management, and measures to mitigate against the release of suspended solids, fuels and oils, and cements.

- Potential for cumulative impacts on Water is reduced by the location of the proposed grid connection and Knocknamona Windfarm across different river sub basins, the absence of proposed instream works and the implementation of the Environmental Management Plan and Sediment Control Plan for the windfarm project.
- Beneficial cumulative impact of the proposed grid connection and Knocknamona Windfarm on **Climate** through the supply of renewable electricity to the equivalent of 22,857 homes thereby reducing emissions from fossil fuel burning for energy production every year for the lifetime of the windfarm
- No greater than slight potential for impacts on Material Assets and Architectural Heritage (along construction traffic haul routes) that will be mitigated by traffic cones and speed restrictions, abnormal load escorts and signage, as necessary.

# 10.0 Appropriate Assessment

- 10.1. The areas addressed in this section are as follows:
  - Compliance with Articles 6(3) of the EU Habitats Directive
  - Geographical Scope and Main Characteristics
  - Screening the need for Appropriate Assessment
  - The Natura Impact Statement and associated documents
  - Appropriate Assessment of implications of the proposed development on each European site
- 10.2. **Compliance with Articles 6(3) of the EU Habitats Directive:** The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its

implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

10.3. The proposed development comprising the development of underground electrical cabling linking a wind farm (to be constructed) to an operational substation, with associated and ancillary site development works is not directly connected with or necessary to the management of any European site and is therefore subject to the provisions of Article 6(3).

# 10.4. Geographical Scope and Main Characteristics

- 10.4.1. The proposed development comprises the laying of an underground electrical cabling over a distance of 1,940m to link Knocknamona Windfarm Substation (to be constructed) and Woodhouse Substation (operational). Works are proposed within the substation compound to include new control building, transformer, 110kV transformer bay, lightning masts, gateway and fencing. A new 190m link road (4.5m wide) is proposed to connect the Woodhouse Windfarm road network to the Knocknamona Windfarm road network, and an existing 960m section of forestry road will be widened by 0.5m on either side. The existing Woodhouse Windfarm entrance and windfarm road network will be used to provide access to Woodhouse Substation for the proposed grid connection electrical equipment, and to provide access to the new link road and widened forestry road for the delivery of turbine components to Knocknamona Windfarm.
  - 10.4.2. Construction of the proposed underground cabling, link road and forestry road widening is expected to take 2 months, and the additional plant and apparatus at Woodhouse Substation compound will take approximately 4 months. Delivery of turbine components for Knocknamona Windfarm (up to 72 loads) will be carried out over a 3-month period. The windfarm construction period is expected to be not longer than a year.
  - 10.4.3. The proposed underground cable trench will be excavated to a depth of 1250mm and width of 600m. Works will be carried out in 50m sections. Backfill will be laid to within 300mm of the surface and a final layer of stone or topsoil will be placed in the trench to ground level. The construction works area will be reinstated and reseeded

with grass and flower species common to the surroundings. Crossing of the public will be carried out by directional drilling and a section of earthen bank field boundary to be removed will be reinstated along its original alignment.

- 10.4.4. The new link road will be constructed over the proposed underground cabling. The width of the new road and roadside drainage will be excavated and the surface of the new road will be finished with a hardwearing granular fill with 1%. Runoff from the widened forestry road will be 'over the edge' onto adjacent vegetated ground.
- 10.4.5. The total construction works area will be 3.6 hectares. Habitat types within the proposed development site and 50m buffer comprises of 19.67 hectares of Improved Agricultural Grassland (GA1); 4.72 hectares of Buildings and Artificial Surfaces (BL3) including Spoil and Bare Ground (ED2), Recolonising Bare Ground (ED3), Dry-humid Acid Grassland (GS3); 4.1 hectares of Conifer Plantation (WD4); 3.64 hectares of Conifer Plantation/ Scrub (WD4/WS1); 3.51 hectares of recently felled Woodland/Scrub/Immature Woodland (WS5/WS1/WS2); 1.31 hectares of Conifer Plantation/Immature Woodland (WD4/ WS2); 0.83 hectare of Wet Grassland (GS4); 0.7 hectare of Scrub (WS1); 0.2 hectare of Semi-Natural Woodland (WN); 2,316m of treelines; and 61m of hedgerow. No invasive species were observed during habitat surveys undertaken on 8<sup>th</sup> June and 9<sup>th</sup> June 2023.
- 10.4.6. There are no watercourses in proximity to the proposed grid connection. Mountodell Stream is the nearest stream at a distance of 280m and this 1<sup>st</sup> order stream flows north for 2km before meeting the 3<sup>rd</sup> order River Brickey, which in turn, flows east into Dungarvan Harbour. Monageela Stream is also a first order stream that rises 360m south of the permitted Knocknamona Windfarm and flows south to the 2<sup>nd</sup> order Goish River. The northern-most extent of the site is drain by the first order Clashnadarriv Stream, which flows c. 3.3km north into the 4<sup>th</sup> order Finisk River. Coolahest Stream located at a distance c. 750m drains the south-east area of the proposed grid connection. The grid connection site is situated in Goish\_010 and Brickey\_020 river sub-catchments and on the Blackwater and Colligan-Mahon catchment divide.
- 10.4.7. A search undertaken on the National Biodiversity Data Centre for qualifying interest and special conservation interest species showed the presence of European Otter, Whooper Swan, European Golden Plover and Peregrine Falcon within the 10 x 10km

Irish Grid square. There were no records or evidence of Otter recorded during surveys; however, there is potential for Otter to occur on site due to the extent of their territories and the presence of 1<sup>st</sup> order streams draining the appeal site.

- 10.4.8. It is stated in the applicant's Stage 1: Screening for Appropriate Assessment that the proposed grid connection site is not associated with the distribution (regional or local) or foraging areas of any of birds of Special Conservation Interest. Transect surveys carried out in January and June 2018 recorded 29 bird species, none of which were SCI species for relevant European Sites. European Golden Plover and Lesser Black-backed Gull were recorded in vantage point surveys in 2018 but not in significant numbers. Whooper Swan were not recorded on site and there is no suitable feeding or breeding habitat for this species. Baseline data derived from Knocknamona Windfarm bird surveys in 2010, 2013 and 2014 recorded the presence of Curlew, Barn Swallow, Skylark, Sand Martin and Swift. Habitats on site are generally unsuitable for breeding but may be used occasionally for foraging by these species. SCI birds recorded at or in the area surrounding the Knocknamona Windfarm site include Eurasian Curlew, European Golden Plover, and Lesser Black-backed Gull.
- 10.4.9. The nearest European Site is the Blackwater River (Cork/Waterford) SAC, which lies approximately 2.9km to the north of the appeal site. Dungarvan Harbour SPA is 6.95km to the east and the Blackwater Estuary SPA is approximately 8.1km to the south-west.

### 10.5. Screening the Need for Appropriate Assessment

- 10.5.1. The first test of Article 6(3) is to establish if the proposed development could result in likely significant effects to a European site. This is considered stage 1 of the appropriate assessment process i.e., *screening*. The screening stage is intended to be a preliminary examination. If the possibility of significant effects cannot be excluded on the basis of objective information, without extensive investigation or the application of mitigation, a plan or project should be considered to have a likely significant effect and Appropriate Assessment carried out.
- 10.5.2. Having regard to the information and submissions available, the nature, size and location of the proposed development and its likely direct, indirect and cumulative

effects, the source pathway receptor principle and sensitivities of the ecological receptors, the European sites set out in Table 1 below are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects. A total of 18 European sites are included (10 SACs & 8 SPAs) for initial screening.

10.5.3. European sites considered for Stage 1 screening:

European site	Site	Distance to	Connections	Considered
(SAC/SPA)	code	Proposed	(source,	further in
		Development	pathway,	Screening
			receptor)	(Y/N)
Blackwater River	002170	2.85km north	Possible	Y
(Cork/Waterford) SAC			connections	
Helvick Head SAC	000665	13.21km east	No potential connections	Ν
Ardmore Head SAC	002123	14.18km south	No potential connections	N
Glendine Wood SAC	002324	12.43km north- east	No potential connections	Ν
Comeragh Mountains SAC	001952	14.56km north- east	No potential connections	N
Nier Valley Woodlands SAC	000668	20.88km north- east	No potential connections	Ν
Lower River Suir SAC	002137	20.76km north	No potential connections	Ν
River Barrow and	002162	54km north-	No potential	N
River Nore SAC		east	connections	
Tramore Dunes and	000671	44km east	No potential	N
Back Strand SAC			connections	
Bannow Bay SAC	000697	63km east	No potential connections	N
Blackwater Estuary SPA	004028	8.12km south- west	Possible connections	Y
Dungarvan Harbour SPA	004032	6.9km east	Possible connections	Y
Helvick Head to	004192	11.6km south-	No potential	N
Ballyquin SPA		east	connections	
Blackwater Callows	004094	12.24km north-	No potential	N
SPA		west		

European site	Site	Distance to	Connections	Considered
(SAC/SPA)	code	Proposed	(source,	further in
		Development	pathway,	Screening
			receptor)	(Y/N)
Mid-Waterford Coast	004193	17.5km east	No potential connections	N
Ballymacoda Bay SPA	004023	18.24km south- west	No potential connections	Ν
Tramore Back Strand SPA	004027	44km east	No potential connections	Ν
Bannow Bay SPA	004033	63.5km east	No potential connections	N

 Table 1 – Summary Table of European sites considered in Screening for Appropriate Assessment

- 10.5.4. The applicant's AA Screening Report concluded that there is potential for effects on the qualifying interests of the Blackwater River (Cork/Waterford) SAC, Blackwater Estuary SPA and the Dungarvan Harbour SPA.
- 10.5.5. Having reviewed the documentation and submissions on file, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites. Based on my examination of the AA Screening Report and other supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distances and functional relationships between the proposed scheme and the European sites, their conservation objectives, and taken in conjunction with my assessment of the subject site and the surrounding area, I conclude that a Stage 2 Appropriate Assessment is required for the following European sites in view of the conservation objectives of these sites:
  - Blackwater River (Cork/Waterford) SAC
  - Blackwater Estuary SPA
  - Dungarvan Harbour SPA
- 10.5.6. Table 2 below provides a screening summary matrix where there is a possibility of significant effects from the proposed development, or where the possibility of significant effects cannot be excluded without further detailed assessment.

Site name	Is there a possibility of significant effects in view of the conservation objectives of the			
Qualifying Interest feature	site?			
	General impact categories presented			
	Habitat loss/ modification	Water quality and water dependent habitats (pollution)	Disturbance/ displacement barrier effects	
Blackwater River (Cork/Waterford) SAC (002170)Qualifying InterestsEstuaries [1130]Mudflats and sandflats not covered by seawater at low tide [1140]Perennial vegetation of stony banks [1220]Salicornia and other annuals colonising 	Potential for indirect impact to QI habitat through loss or degradation of terrestrial or aquatic habitats, or loss of connectivity of habitats, within or ex-situ SAC sites (via reductions in water quality or the spread of invasive species).	<ul> <li>Potential for indirect impacts to QI species through loss, reduction, fragmentation of loss of connectivity of suitable habitat or reduction in prey item species (via reductions in water quality, changes in flow, or spread of invasive species). There is downstream hydrological connectivity to Blackwater River SAC from the proposed grid connection works.</li> </ul>	- Potential for direct or indirect impacts to QI species via mortality, disturbance or displacement	
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]				

Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]			
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]			
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]			
Austropotamobius pallipes (White- clawed Crayfish) [1092]			
Petromyzon marinus (Sea Lamprey) [1095]			
Lampetra planeri (Brook Lamprey) [1096]			
Lampetra fluviatilis (River Lamprey) [1099]			
Alosa fallax fallax (Twaite Shad) [1103]			
Salmo salar (Salmon) [1106]			
Lutra lutra (Otter) [1355]			
Trichomanes speciosum (Killarney Fern) [1421]			
Blackwater Estuary SPA (004028)	- Potential for habitat loss	- Potential for habitat loss or	
Qualifying Interests	reductions in water quality	in water quality or spread of	
Wigeon (Anas penelope) [A050]	or spread of invasive	invasive species or ex-situ habitat loss/reduction or ex-situ	
Golden Plover (Pluvialis apricaria) [A140]	loss/reduction or ex-situ	reduction in prey item species).	
Lapwing (Vanellus vanellus) [A142]			

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Dunlin (Calidris alpina) [A149]	reduction in prey item		
Black-tailed Godwit (Limosa limosa) [A156]	species).		
Bar-tailed Godwit (Limosa lapponica) [A157]			
Curlew (Numenius arquata) [A160]			
Redshank (Tringa totanus) [A162]			
Wetland and Waterbirds [A999]			
Dungarvan Harbour SPA (004032)	- Potential for habitat loss	- Potential for habitat loss or	
Qualifying Interests:	or reduction (via ex-situ reductions in water quality	in water quality or spread of	
Great Crested Grebe (Podiceps cristatus) [A005]	or spread of invasive species or ex-situ habitat loss/reduction or ex-situ	invasive species or ex-situ habitat loss/reduction or ex-situ reduction in prev item species).	
Light-bellied Brent Goose (Branta bernicla hrota) [A046]	reduction in prey item species).	······································	
Shelduck (Tadorna tadorna) [A048]			
Red-breasted Merganser (Mergus serrator) [A069]			
Oystercatcher (Haematopus ostralegus) [A130]			
Golden Plover (Pluvialis apricaria) [A140]			
Grey Plover (Pluvialis squatarola) [A141]			
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 arquata) [A160]		
Redshank (Tringa totanus) [A162]		
Turnstone (Arenaria interpres) [A169]		
Wetland and Waterbirds [A999]		

Table 2 Screening summary matrix: European sites for which there is a possibility of significant effects (or where the possibility of significant effects cannot be excluded without further detailed assessment)

- 10.5.7. The remaining sites can be screened out from further assessment because of the scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances and the lack of a substantive ecological linkage, hydrologically or otherwise, between the proposed works and the European sites.
- 10.5.8. The proposed grid connection does not overlap with any European site and there is no potential to cause direct habitat loss, fragmentation or disturbance in any of the Special Areas of Conservation screened out within the study area due to the location of the works outside of any such European sites. Indirect terrestrial or aquatic habitat loss or degradation will not occur in all sites screened out due to the absence of hydrological connectivity and/ or the separation distance between construction works, or any operational stage work.
- 10.5.9. Whooper Swan is a SCI species for the Blackwater Callows SPA and the nearest flight line for this species was recorded approximately 1km from the proposed development site. Whooper Swan is present in the wider area in significant numbers (i.e. 16% of the SPA population). There is potential for ex-situ mortality, disturbance or displacement impacts on this species in-combination with the Knocknamona Windfarm and other windfarms in the surrounding area.
- 10.5.10. Notwithstanding this, habitat on the appeal site, and on the wider Knocknamona Windfarm site, is unsuitable for use by Whooper Swan for foraging and loafing. Furthermore, Whopper Swan were not recorded in surveys using the Knocknamona Windfarm site or the Woodhouse Windfarm and Substation sites. It is therefore evaluated that there is no likelihood of significant displacement or disturbance effects to this species, either alone or in combination with other plans or projects. Given the limited scale of the grid connection works, and the low intensity of works during operational and decommissioning phases, there is no potential for ex-situ mortality risk, or disturbance or displacement impacts to Whooper Swan, either alone or in combination. Surveys carried out in January and February 2021 confirm that the windfarm site is not used by Whooper Swan and is not situated on a regular flight path.
- 10.5.11. SCI species for the Ballymacoda Bay SPA, Tramore Back Strand SPA, and Bannow Bay SPA include Eurasian Curlew, European Golden Plover and Lesser Black-

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backed Gull, and these species were recorded during avifauna surveys and habitat field surveys for the Knocknamona Windfarm project, albeit in very low numbers. There is potential for ex-situ mortality, disturbance or displacement of these SCI species. However, the commercial forestry and improved agricultural grassland habitat on the appeal site and wider area are suboptimal for these species. Furthermore, survey results show that these species do not rely on the Knocknamona Windfarm and proposed grid connection sites and are not resident or regularly occurring in the surrounding area.

- 10.5.12. Significant disturbance/ displacement or mortality effects are therefore unlikely as a result of the proposed grid connection alone, and in combination with the authorised Knocknamona Windfarm. The potential for collision mortality with operational turbines is also negligible having regard to *inter alia* the low suitability of habitat for Eurasian Curlew, European Golden Plover, or Lesser Black-backed Gull within the Knocknamona Windfarm site. As these effects are negligible, there is no likelihood of significant adverse in-combination effects with other windfarms, including Woodhouse, Ballycurreen, Lyrenacarriga or Scart Mountain.
- 10.5.13. There is potential for connectivity to the Blackwater Estuary SPA and the Dungarvan Bay SPA via watercourses that drain the proposed grid connection site. A reduction in downstream water quality as a result of the proposed development, or the spread of invasive species could give rise to loss/ reduction of wetland habitat, other suitable habitat for the SCI species, or a reduction in prey item species. The potential for incombination effects cannot be ruled out because these SPAs are hydrologically linked to other parts of the Knocknamona Windfarm project. Lyrenacarriga and Scart Mountain windfarms are also hydrologically connected to the Blackwater Estuary SPA and there are ongoing agricultural and forestry activities in the surrounding area. In-combination effects cannot therefore be ruled out.
- 10.5.14. The other SPAs have been screened out as no likely significant effects are predicted on the QI species for these European sites as the hydrological distances are *de minimus* due to the intervening distances and the dilution rates of the rivers and estuaries. A pollution event is therefore unlikely to reach the European sites to cause significant impacts. There is no pathway from the proposed development to suitable supporting or functionally linked habitat for certain QI species.

- 10.5.15. It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on Helvick Head SAC (000665), Ardmore Head SAC (002123), Glendine Wood SAC (002324), Comeragh Mountains SAC (001952), Nier Valley Woodlands SAC (000668), Lower River Suir SAC (002137), River Barrow and River Nore SAC (002162), Tramore Dunes and Back Strand SAC (000671), Bannow Bay SAC (000697), Helvick Head to Ballyquin SPA (004192), Blackwater Callows SPA (004094), Mid-Waterford Coast SPA (004193), Ballymacoda Bay SPA (004023), Tramore Back Strand SPA (004027) and Bannow Bay SPA (004033) in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment for these sites is not required. I am therefore satisfied that no additional sites other than those assessed in the NIS need to be brought forward for Appropriate Assessment.
- 10.5.16. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually, or in combination with other plans or projects, could have a significant effect on European site No's. 002170, 004028 and 004032 in view of the sites' Conservation Objectives, and Appropriate Assessment is therefore required.

#### 10.6. The Natura Impact Statement and Associated Documents

- 10.6.1. The application was accompanied by an Appropriate Assessment Report, 2023 for the Knocknamona Windfarm Grid Connection comprising a Stage 1: Screening for Appropriate Assessment and a Stage 2: Natura Impact Statement submitted to the Board on 8<sup>th</sup> September 2023. The NIS examines the effects of the proposed grid connection alone and as part of the whole Knocknamona Windfarm project, and incombination with other projects and activities, on the integrity of the three European Sites in respect of their conservation objectives and their structure and function.
- 10.6.2. The following documents are appended to the Appropriate Assessment Report, 2023:
  - Appendix A: Finding of No Significant Effects (FONSE) Report
  - Appendix B: Bird Survey Data 2015 to 2023

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- 10.6.3. It should be noted that the Stage 2: Appropriate Assessment should be entitled an NIS as required under the Planning and Development Act, 2000 (as amended). However, the document in question is a NIS in all but name. In general, I am satisfied that the Appropriate Assessment Reporting (Including NIS) submitted with the planning application adequately describes the proposed development, the project site and the surrounding area. The Stage 1 Screening Assessment concluded that a Stage 2 Appropriate Assessment (NIS) was required. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within the European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for the site and its conservation objectives, suggested mitigation measures, assessed in-combination effects with other plans and projects and identified any residual effects on the European site and its conservation objectives.
- 10.6.4. The Appropriate Assessment Reporting (Screening and NIS) were informed by the following studies, surveys and consultations:
  - Statutory Consultation:
    - Response from Scientific Units of NPWS containing sensitive or unpublished data held by NPWS in the hectad (10km square) X19 where the proposed project is located.
    - No response to applicant's request for recommendations or observations from Development Applications Unit in the Department of Housing, Local Government and Heritage and Inland Fisheries Ireland
  - Sources of Information:
    - Review of conservation objectives, site synopsis and site boundary information for European Sites considered possibly within the Zone of Influence of the development.
    - Appropriate Assessments (An Bord Pleanála, September 2016; September 2022) for the authorised Knocknamona Windfarm.
    - Supporting ecological receptor information, including field and detailed bird surveys.
    - Water Framework Directive Assessment (Appendix 9.3 of EIAR 2023)

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- Desk study for potential for QI and SCI of European Sites to occur in near proximity to the proposed grid connection in accordance with Balmer et al. (2013).
- Ecological Surveys:
  - Update habitat survey on 8th/9th June 2023 (previous bird surveys at the Knocknamona Windfarm site up to 2023 are relied upon for the current evaluation given the absence of any significant changes in the suitability of SCI bird habitat within/adjacent to the proposed development site).
  - Walkover surveys to identify and classify the terrestrial habitats and evidence of designated mammal species presence within the study area, specifically Otter (Lutra lutra), on 8<sup>th</sup> and 9<sup>th</sup> June 2023.
  - Bird transect surveys for the authorised Knocknamona Windfarm (January & June, 2018)
  - Vantage point surveys for the authorised Knocknamona Windfarm including for the larger turbines application in winter 2020/2021.
  - Whooper Swan Census Surveys undertaken between January and April 2018, and also in 2021, and from September 2022 to April 2023
  - Gradient of the water body and the current EPA River Water Quality Status inform the characterisation of aquatic habitat & species near the development.
- Guidance Documents:
  - Balmer, D., Gillings, S., Caffrey, B., Swann, B., Downie, I., & Fuller, R. (2013).
     Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland. BTO Books.
  - BirdWatch Ireland. (2008). I-WeBS Counter Manual: Guidelines for Irish Wetland Bird Survey counters. BirdWatch Ireland & National Parks and Wildlife Service.
  - DoCHG. (2017). National Biodiversity Action Plan 2017-2021. Department of Culture, Heritage and the Gaeltacht. Ecopower Developments Limited. (2015).
  - Environmental Protection Agency. (2019). Water Quality in Ireland 2016-2021.
     Environmental Protection Agency.

- Environment, Heritage and Local Government. (2010) Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revised 11 February 2010.
- European Commission. (2021) Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2021)
- European Commission. (2018) Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Brussels, 21/11/2018.
- Fossitt, J. A. (2000). A guide to habitats in Ireland. Heritage Council.
- Gilbert, G., Stanbury, A., & Lewis, L. (2021) Birds of Conservation Concern in Ireland 2020-2026. Irish Birds 9: 523-544.
- NPWS. (2019a). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary. Unpublished NPWS Report. NPWS. (2019b). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS Report.
- NS 2. (2010). Freshwater Pearl Mussel Second Draft: Licky Sub-Basin Management Plan. Department of the Environment, Heritage and Local Government.
- Reid, N., Hayden, B., Lundy, M. G., Pietravalle, S., McDonald, R. A., & Montgomery, W. I. (2013). National Otter Survey of Ireland 2010/12. Irish Wildlife Manuals, 76.
- Scottish Natural Heritage. (2017). Recommended bird survey methods to inform impact assessment of onshore wind farms. Scottish Natural Heritage
- 10.6.5. The NIS concluded that, subject to implementation of mitigation measures for the protection of water quality, and against the spread of invasive species, that the proposed grid connection will not, alone or in combination, give rise to adverse impacts on the integrity of the Blackwater River (Cork/Waterford) SAC (002170), Blackwater Estuary SPA (004028) or Dungarvan Harbour SPA (004032), in circumstances where no reasonable scientific doubt remains.

10.6.6. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge. Details of mitigation measures are provided, and they are summarised in the NIS. I am satisfied that the information allows for a complete assessment of any adverse effects of the development, on the conservation objectives of the relevant European sites alone, or in combination with other plans and projects:

# 10.7. Appropriate Assessment of Implications of the Proposed Development on Each European Site

- 10.7.1. The following is an assessment of the implications of the project on the relevant conservation objectives of the European sites using the best available scientific knowledge in the field. All aspects of the project which could result in significant effects are identified and mitigation measures designed to avoid or reduce any adverse effects are examined and assessed.
- 10.7.2. I have relied on the following guidance:
  - DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service;
  - EC (2002) Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC;
  - EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC;
  - EC (2011) Guidelines on the implementation of the Birds and Habitats Directives in Estuaries and coastal zones.
  - 10.7.3. **Relevant European sites:** The following sites are subject to appropriate assessment:
    - Blackwater River (Cork/Waterford) SAC
    - Blackwater Estuary SPA

- Dungarvan Harbour SPA
- 10.7.4. A description of these sites and their Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for the sites, are set out in the NIS and outlined in Table 3-5 below. I have also examined the Natura 2000 data forms as relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website (<u>www.npws.ie</u>).
- 10.7.5. **Aspects of the proposed development:** The main aspects of the proposed development that could adversely affect the conservation objectives of European sites include:
  - Loss or degradation of qualifying interest terrestrial or aquatic habitat or loss of connectivity of habitats, within ex-situ SAC sites via reductions in water quality or spread of invasive species.
  - Direct or indirect impacts to QI species via mortality, disturbance or displacement.
  - Habitat loss or reduction in prey item species via ex-situ reductions in water quality or spread of invasive species or ex-situ habitat loss/reduction or ex-situ reduction in prey item species for SCI birds.
- 10.7.6. **Tables 3 to 5** summarise the appropriate assessment and site integrity test. The conservation objectives, targets and attributes as relevant to the identified potential significant effects are examined and assessed in relation to the aspects of the proposal (alone and in combination with other plans and projects). Mitigation measures are examined, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.

# 10.8. Table 3 – River Blackwater (Cork/ Waterford) SAC

Table 3							
River Blackwater (Cork/	River Blackwater (Cork/Waterford) SAC (Site code: 0002170)						
Key Issues:							
Habitat degradation	on/ effects as a result of hydrologica	Il impacts.					
Spread of invasive	e species.						
Reduction in SCI	species prey items						
Conservation Objectives	s: https://www.npws.ie/sites/default/	files/protected-sites/conse	ervation_objectives/CO00217	<u>′0.pdf</u>			
		Summary of Appropriate	Assessment				
Conservation Objective	Targets & Attributes (as	Potential adverse	In-combination effects of	Mitigation Measures	Can adverse effects		
	relevant)	effects	Plans & Programmes/		on site integrity be		
			Major Projects		excluded?		
To restore the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:						
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	Maintain distribution to 161km and restore population to at least 35,000 adult mussels; restore 20% of population to ≤65mm in length and at least 5% to ≤30mm in length; ≤5% decline from previous no. of adults counted; dead shells <1%	No likely significant effects. Known populations located upstream and there is no connectivity from the wider windfarm development.	-		Yes		

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	of adult population and scattered in distribution; restore suitable habitat in more than 35km and any additional stretches necessary for salmonid spawning; restore water quality macroinvertebrates; restore condition of habitat and water and substratum quality; and restore appropriate hydrological regime; maintain sufficient juvenile salmonids to host glochidial larvae.				
Petromyzon marinus (Sea Lamprey) [1095]	Greater than 75% of main stem length of rivers accessible from estuary; at least 3 age/ size groups present; juvenile density at least 1/m <sup>2</sup> ; no decline in extent and distribution of spawning beds; more than 50% of sample sites positive.	Loss, reduction, fragmentation of loss of connectivity of suitable habitat (via reductions in water quality and/ or spread of invasive species) – construction phase only.	<ul> <li>In the absence of mitigation measures, there is increased potential for reductions in water quality during construction due to release of sediment or contaminants to downstream watercourses.</li> <li>In the absence of mitigation measures, there is increased potential for the dispersal of invasive species.</li> <li>Also potential for adverse in-combination effects with other projects and activities within the catchment.</li> </ul>	<ul> <li>Steam cleaning of site machinery to prevent the spread of invasive species.</li> <li>Scheduling of underground cabling works in 50m sections to reduce the potential for sediment laden runoff.</li> <li>Installation of silt fences down-gradient of proposed works, and placement of temporary silt fencing/silt traps along potential runoff drainage routes.</li> <li>Regular inspection of silt fencing/ traps during construction.</li> <li>Covering of temporary spoil heaps during heavy rainfall and no excavation,</li> </ul>	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.

		substation and link	
		place during periods of	
		intense or prolonged	
		rainfall.	
		<ul> <li>Measures for storage</li> </ul>	
		of fuels and oils and	
		refuelling during	
		construction to prevent	
		the escape of fuels	
		from storage	
		containers, Regular	
		inspection of plant and	
		machinery for fitness	
		of purpose Availability	
		of spill kits and training	
		of personnel to deal	
		with accidental solls	
		No botobing of wot	
		- No batching of wet	
		discharge of experts	
		discharge of concrete	
		washout to artificial	
		drain or watercourse.	
		Concrete pouring to	
		take place on dry	
		days.	
		<ul> <li>Similar measures for</li> </ul>	
		operational and	
		decommissioning	
		phases.	
		- Works to be carried	
		out in accordance with	
		the Environment	
		Management Plan and	
		mitigation measures to	
		be monitored by	
		Environmental Clerk of	
		Works.	
		days. - Similar measures for operational and decommissioning phases. - Works to be carried out in accordance with the Environment Management Plan and mitigation measures to be monitored by Environmental Clerk of Works.	

				- A suite of water quality protection measures form part of the authorised Knocknmona Windfarm.	
Alosa fallax (Twaite Shad) [1103]	Greater than 75% of main stem length of rivers accessible from estuary; more than one age class present; no decline in extent and distribution of spawning habitats; oxygen levels no lower than 5mg/l; and maintain stable gravel substrate with very little fine material, free of filamentous algal growth and macrophyte growth.	Loss, reduction, fragmentation of loss of connectivity of suitable habitat (via reductions in water quality and/ or spread of invasive species) – construction phase only.	<ul> <li>In the absence of mitigation measures, there is increased potential for reductions in water quality during construction due to release of sediment or contaminants to downstream watercourses.</li> <li>In the absence of mitigation measures, there is increased potential for the dispersal of invasive species.</li> <li>Also potential for adverse in-combination effects with other projects and activities within the catchment.</li> </ul>	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain creek and pan structure and natural tidal regime; maintain range of coastal habitat and structural variation within sward; maintain >90% of saltmarsh area	No likely significant effects and QI habitats mainly occur along the coast – mainly influenced by marine processes.	-	-	Yes

	vegetated; maintain range of sub-communities with typical species listed in saltmarsh; and no significant expansion of common cordgrass.				
Lutra lutra (Otter) [1355]	No significant decline in distribution or extent of terrestrial, marine and freshwater habitat; no significant decline in couching sites and holts, and available fish biomass; and no significant increase in barriers to connectivity.	Loss, reduction, fragmentation of loss of connectivity of suitable habitat (via reductions in water quality and/ or spread of invasive species (which in turn could affect suitable habitat or prey item species) – construction phase only.	<ul> <li>In the absence of mitigation measures, there is increased potential for reductions in water quality during construction due to release of sediment or contaminants to downstream watercourses.</li> <li>In the absence of mitigation measures, there is increased potential for the dispersal of invasive species.</li> <li>Also potential for adverse in-combination effects with other projects and activities within the catchment.</li> </ul>	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Stable/ increasing habitat area and woodland size; no decline in habitat distribution; diverse woodland structure, extent of community types and natural regeneration; native tree cover not less than 95% and a variety of typical native species present; criterial relating to dead wood, veteran trees and local distinctiveness; and a variety of vegetation composition and	Loss or degradation of terrestrial or aquatic habitats, or loss of connectivity of habitats, within or ex- situ SAC sites (via reductions in water quality or the spread of invasive species) – construction phase only.	<ul> <li>Increased potential for works to release sediment or contaminants to downstream watercourses; however, this QI habitat is not sensitive to changes in water quality.</li> <li>In the absence of mitigation measures, there is increased potential for dispersal of</li> </ul>	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation

	absence/ control of negative indicator species.		invasive species. Also potential for adverse in- combination effects with other projects and activities within the catchment.		condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	Stable/ increasing habitat area and woodland size; no decline in habitat distribution; diverse woodland structure, extent of community types and natural regeneration; maintain appropriate hydrological regime; criterial relating to dead wood, veteran trees and local distinctiveness; and a variety of vegetation composition and absence/ control of negative indicator species.	Loss or degradation of terrestrial or aquatic habitats, or loss of connectivity of habitats, within or ex- situ SAC sites (via reductions in water quality or the spread of invasive species) – construction phase only.	<ul> <li>Increased potential for works to release sediment or contaminants to downstream watercourses; however, this QI habitat is not sensitive to changes in water quality.</li> <li>In the absence of mitigation measures, there is increased potential for dispersal of invasive species. Also potential for adverse in- combination effects with other projects and activities within the catchment.</li> </ul>	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
To maintain the favourable conservation condition of the following:					
Austropotamobius pallipes (White-clawed Crayfish) [1092]	No reduction from baseline distribution, juveniles and/ or females with eggs in at least 50% of positive samples, no alien crayfish and no instances of disease, sampling of water	No likely significant effects as project is not hydrologically connected to any of the mapped locations for this QI species and	-	-	Yes

	quality by EPA, no decline in habitat heterogeneity or habitat quality.	the separation distance to the known distribution and range is over 90km upstream. There are no in stream works for the grid connection or the whole Knocknamona Windfarm.			
- Lampetra planeri (Brook Lamprey) [1096] - Lampetra fluviatilis (River Lamprey) [1099]	Access to all watercourses down to 1 <sup>st</sup> order streams; at least 3 age/ size groups present; maen catchment juvenile density at least 2/m <sup>2</sup> ; no decline in extent and distribution of spawning beds; more than 50% of sample sites positive.	Loss, reduction, fragmentation of loss of connectivity of suitable habitat (via reductions in water quality and/ or spread of invasive species) – construction phase only.	<ul> <li>In the absence of mitigation measures, there is increased potential for reductions in water quality during construction due to release of sediment or contaminants to downstream watercourses.</li> <li>In the absence of mitigation measures, there is increased potential for the dispersal of invasive species.</li> <li>Also potential for adverse in-combination effects with other projects and activities within the catchment.</li> </ul>	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Salmo salar (Salmon) [1106]	100% of river channels down to 2 <sup>nd</sup> order accessible from estuary; conservation limit for each system consistently exceeded; maintain or exceed 0+ fry mean catchment-wide	Loss, reduction, fragmentation of loss of connectivity of suitable habitat (via reductions in water quality and/ or spread	- In the absence of mitigation measures, there is increased potential for reductions in water quality during construction due to	As above	Yes With the effective implementation of mitigation measures, the proposed

	abundance threshold value- currently set at 17 salmon fry/5 minutes sampling; no significant decline in out-migrating smolt abundance; no decline in no. & distribution of spawning redds due to anthropogenic causes; water quality at least Q4 at all sampled sites.	of invasive species) – construction phase only.	release of sediment or contaminants to downstream watercourses. - In the absence of mitigation measures, there is increased potential for the dispersal of invasive species. - Also potential for adverse in-combination effects with other projects and activities within the catchment.		scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of this SAC and will not therefore affect its integrity.
Estuaries [1130]	Permanent habitat area is stable or increasing, subject to natural processes; Maintain the extent and conserve high quality of the Mytilus edulis-dominated community, subject to natural processes; and conserve intertidal estuarine sandy mud community complex, subtidal estuarine fine sand with Bathyporeia spp. community complex' sand and mixed sediment with polychaetes and crustaceans community complex, and coarse sediment community complex in natural condition.	No likely significant effects due to separation distance and intrinsic nature and structure of the QI habitat – construction phase only.	-	-	Yes
Mudflats and sandflats not covered by seawater at low tide [1140]	Stable or increasing habitat area; maintenance of extent/ conservation of high quality of <i>Zostera</i> -dominated community and the <i>Mytilus edulis</i> - dominated community, subject	No likely significant effects due to separation distance and intrinsic nature and structure of the QI	-	-	Yes

	to natural processes; and conservation of intertidal estuarine sandy mud community complex and sand and mixed sediment with polychaetes and crustaceans community complex all in a natural condition.	habitat – construction phase only.			
Perennial vegetation of stony banks [1220]	Habitat area stable or increasing, and no decline, or change in habitat distribution subject to natural processes; maintain the natural circulation of sediment and organic matter, the range of coastal habitats and typical vegetated shingle flora; and negative indicator species (including non-natives) to represent less than 5% cover.	No likely significant effects and QI habitats mainly occur along the coast – mainly influenced by marine processes.	-	-	Yes
Salicornia and other annuals colonising mud and sand [1310]	No decline in habitat distribution; stable/ increasing habitat area; maintain/ restore natural circulation of sediments/ organic matter; maintain creek and pan structure and natural tidal regime; maintain range of coastal habitat and structural variation within sward; maintain >90% of areas outside creeks vegetated; maintain presence of listed species poor communities; and no significant expansion of common cordgrass.	No likely significant effects and QI habitats mainly occur along the coast – mainly influenced by marine processes.	-	-	Yes
Mediterranean salt meadows (Juncetalia maritimi) [1410]	No decline in habitat distribution; stable/ increasing habitat area; maintain natural circulation of sediments/ organic matter;	No likely significant effects and QI habitats mainly occur along the coast – mainly	-	-	Yes

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	maintain creek and pan structure and natural tidal regime; maintain range of coastal habitats including transitional zones and structural variation within sward; maintain >90% of areas outside creeks vegetated; maintain range of sub-communities with typical species; and no significant expansion of common cordgrass.	influenced by marine processes.			
Killarney Fern (Trichomanes speciosum) [1421]	No decline in distribution; maintain size and extent of existing colonies; no loss of suitable habitat or woodland canopy at or near known locations; maintain hydrological conditions and no increase in desiccated fronds; no changes in shading due to anthropogenic impacts; and invasive species absent or under control.	No likely significant effects - QI habitat/flora species is located upstream of the hydrological pathway to the SAC.	-	-	Yes
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho- Batrachion vegetation [3260]	Stable/ increasing habitat area; no decline in habitat distribution; maintain appropriate hydrological and tidal regime; maintain appropriate sub- stratum, water quality, typical species, and floodplain connectivity.	Loss or degradation of terrestrial or aquatic habitats, or loss of connectivity of habitats, within or ex- situ SAC sites (via reductions in water quality or the spread of invasive species) – construction phase only.	- In the absence of mitigation measures, there is increased potential for reductions in water quality and the dispersal of invasive species to downstream watercourses. Also potential for adverse in- combination effects further augmented with other projects and activities within the catchment.	As above	Yes With the effective implementation of mitigation measures, the proposed scheme will not have any adverse effect on the conservation objectives, or favourable conservation condition of the QI habitats or species of

					this SAC and will not therefore affect its integrity.	
<b>Overall Conclusion: Inte</b>	grity test					
The applicant determined that following the implementation of mitigation, the construction and operation of the proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site.						
Based on the information significance will occur.	provided, I am satisfied that adve	erse effects can be exclu	ded for River Blackwater (Co	ork/ Waterford) SAC and	that no effects of any	
River Blackwater (Cork/ Waterford) SAC is located 4.3km hydrologically downstream from the proposed development site and the nearest watercourse is at a distance of 280m. There are no watercourses within the development boundary. Conservation objective targets for the qualifying interest habitats could be undermined through reduction in water quality and spread of species during the construction phase in combination with other plans and projects.						
No habitat loss within the European designated sites will occur and adverse in-combination effects from water contamination and spread of invasive species can be effectively prevented by mitigation measures ensuring the protection of downstream watercourses that drain to the River Blackwater. These mitigation measures will include the appointment of an Ecological Clerk of Works and completion of works in accordance with the Environmental Management Plan; silt fencing and covering of spoils heaps; measures to prevent accidental pollution; and measures for the scheduling of works in short sections. A suite of water quality protection measures also form part of the authorised Knocknamona Windfarm development.						
Based on the information submitted, surveys carried out analysis provided, I am satisfied that no uncertainty remains.						
The proposed development would not delay or prevent the attainment of the Conservation objectives of the River Blackwater (Cork/ Waterford) SAC and adverse effects on site integrity can be excluded.						

## 10.9. Table 4 – Blackwater Estuary SPA

Table 4

ABP-318545-23

#### Blackwater Estuary SPA (Site code: 004028)

Key Issues:

- Habitat degradation/ effects as a result of hydrological impacts.
- Spread of invasive species.
- Reduction in SCI species prey items

#### Conservation Objectives: https://www.npws.ie/sites/default/files/protected-sites/conservation\_objectives/CO004028.pdf

		Summary of Appropriate Assessment			
				T	
Conservation Objective	Targets & Attributes (as	Potential adverse	In-combination effects of	Mitigation Measures	Can adverse effects
	relevant)	effects	Plans & Programmes/		on site integrity be
			Major Projects		excluded?
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:				
Wigeon (Anas Penelope) A050	Long term population trend stable or increasing: and no	Potential for reductions	- In the absence of mitigation measures	- Steam cleaning of site machinery to	Yes
Golden Plover (Pluvialis apricaria) A140	significant decrease in the range, timing or intensity of use of areas by all listed species	quality or the spread of invasive species could result in the loss or reduction of wetland	there is increased potential for reductions in water quality during	prevent the spread of invasive species. - Scheduling of	With the effective implementation of mitigation measures, the proposed
Lapwing (Vanellus vanellus) A142	patterns of variation.	habitat, the loss or reduction of suitable	release of sediment or contaminants to	works in 50m sections to reduce the potential	scheme will not have any adverse effect
Dunlin (Calidris alpina) A149		habitat for the SCI species or a reduction in their prey item	downstream watercourses. - In the absence of	for sediment laden runoff. - Installation of silt	on the conservation objectives, or favourable
Black-tailed Godwit (Limosa limosa) A156		species – construction stage only.	mitigation measures, there is increased	fences down-gradient of proposed works,	conservation condition of the SCI
				and placement of	nabilials of species of

Bar tailed Codwit			potential for the dispersel	temporary silt	this SPA and will not
					this SFA and will not
(Limosa iapponica)			of invasive species.	rencing/silt traps along	
A157			- Also potential for		integrity.
Curlew (Numerius			adverse in-combination	drainage routes.	
Argusts) A160			effects with other projects	- Regular inspection of	
Alquala) A 160			and activities from	silt fencing/ traps	
Redshank (Tringa			reductions in water quality	during construction.	
tetanus) A162			or the spread of invasive	- Covering of	
			species affecting	temporary spoil heaps	
Wetlands A999	Permanent area occupied by the	Potential for reductions	downstream SCI species,	during heavy rainfall	
	wetland habitat should be stable	in downstream water	prey item species or	and no excavation,	
	and not significantly less than	quality or the spread of	wetland/suitable habitat.	substation and link	
	the area of 871 hectares, other	invasive species could		road works to take	
	than that occurring from natural	result in the loss or		place during periods of	
	patterns of variation.	reduction of Wetland		intense or prolonged	
	F	habitat – construction		rainfall.	
		stage only		- Measures for storage	
		chage chay!		of fuels and oils and	
				refuelling during	
				construction to prevent	
				the escape of fuels	
				from storage	
				containers. Regular	
				inspection of plant and	
				machinery for fitness	
				of purpose. Availability	
				of spill kits and training	
				of personnel to deal	
				with accidental spills.	
				- No batching of wet	
				cement on site and no	
				discharge of concrete	
				washout to artificial	
				drain or watercourse.	
				Concrete pouring to	
				take place on dry	
				days.	

	-	Similar measures for
		operational and
	٩	onases.
	-	· Works to be carried
	0	out in accordance with
	t	he Environment
		Vanagement Plan and
	r	mitigation measures to
		na monitored by
		Environmentel Clerk of
		Works.
	-	A suite of water
	C	quality protection
	r	measures form part of
	t	he authorised
		Knocknmona
		Nindform

#### **Overall Conclusion: Integrity test**

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are hydrologically connected or are remote from the proposed development site and that no effects of any significance will occur.

The Blackwater Estuary SPA is located approximately 8km from the proposed development. Conservation objective targets for the qualifying interest species and habitats could be undermined during construction of the proposed grid connection, and in-combination with other plans and projects, through reductions in downstream water quality or the spread of invasive species resulting in the loss or reduction of wetland habitat, the loss or reduction of suitable habitat for the SCI species or a reduction in their prey item species.

No habitat loss within the European designated sites will occur and adverse in-combination effects from water contamination and spread of invasive species can be effectively prevented by mitigation measures ensuring the protection of downstream watercourses that drain to the River Blackwater. These mitigation measures will include the appointment of an Ecological Clerk of Works and completion of works in accordance with the Environmental Management Plan; silt fencing and covering

of spoils heaps; measures to prevent accidental pollution; and measures for the scheduling of works in short sections. A suite of water quality protection measures also form part of the authorised Knocknamona Windfarm development.

Based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

### 10.10. Table 5 – Dungarvan Harbour SPA

Table 5	Table 5						
Dungarvan Harbour SP	A (Site code: 004032)						
Key Issues:							
Habitat degradati	on/ effects as a result of hydrologica	al impacts.					
Spread of invasiv	e species.						
Reduction in SCI	species prey items						
Conservation Objective	s: https://www.npws.ie/sites/default/	files/protected-sites/conse	ervation_objectives/CO00403	<u>32.pdf</u>			
		Summary of Appropriate	Assessment				
Conservation Objective	Targets & Attributes (as	Potential adverse	In-combination effects of	Mitigation Measures	Can adverse effects		
	relevant)	effects	Plans & Programmes/		on site integrity be		
			Major Projects		excluded?		
To maintain the favourable conservation condition of the following:	The favourable conservation status of a species is achieved when:						

Great Crested Grebe	Long term population trend	Potential for reductions	- In the absence of	- Steam cleaning of	Yes
(Podiceps cristatus)	stable or increasing; and no	in downstream water	mitigation measures,	site machinery to	
A005	significant decrease in the	quality or the spread of	there is increased	prevent the spread of	With the effective
	range, timing or intensity of use	invasive species could	potential for reductions in	invasive species.	implementation of
Light-bellied Brent	of areas by all listed species	result in the loss or	water quality during	- Scheduling of	mitigation measures,
Goose (Branta bernicla	other than occurring from natural	reduction of wetland	construction due to	underground cabling	the proposed
hrota) A046	patterns of variation.	habitat, the loss or	release of sediment or	works in 50m sections	scheme will not have
		reduction of suitable	contaminants to	to reduce the potential	anv adverse effect
Shelduck (Tadorna		habitat for the SCI	downstream	for sediment laden	on the conservation
tadorna) A048		species or a reduction	watercourses.	runoff.	objectives, or
Ded by seted		in their previtem	- In the absence of	- Installation of silt	favourable
Red-breasted		species – construction	mitigation measures.	fences down-gradient	conservation
Merganser (Mergus		stage only.	there is increased	of proposed works.	condition of the SCI
serrator) A069			potential for the dispersal	and placement of	habitats or species of
Ovstercatcher			of invasive species.	temporary silt	this SPA and will not
(Haematonus			- Also potential for	fencing/silt traps along	therefore affect its
ostralegus) A130			adverse in-combination	potential runoff	integrity.
Ustralegus) A150			effects with other projects	drainage routes.	
Golden Plover (Pluvialis			and activities from	- Regular inspection of	
apricaria) A140			reductions in water quality	silt fencing/ traps	
, ,			or the spread of invasive	during construction.	
Grey Plover (Pluvialis			species affecting	- Covering of	
squatarola) A141			downstream SCI species.	temporary spoil heaps	
			prev item species or	during heavy rainfall	
Lapwing (Vanellus			wetland/suitable habitat.	and no excavation.	
vanellus) A142				substation and link	
Knot (Calidria conutua)				road works to take	
				place during periods of	
A143				intense or prolonged	
Dunlin (Calidris alpina)				rainfall.	
A149				- Measures for storage	
				of fuels and oils and	
Black-tailed Godwit				refuelling during	
(Limosa limosa) A156				construction to prevent	
				the escape of fuels	
Bar-tailed Godwit				from storage	
(Limosa lapponica)				containers. Regular	
A157				inspection of plant and	

Curlew (Numenius Arquata) A160 Redshank (Tringa tetanus) A162 Turnstone (Arenaria interpres) A169 Wetlands A999	Permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,219 hectares, other than that occurring from natural patterns of variation.	Potential for reductions in downstream water quality or the spread of invasive species could result in the loss or reduction of Wetland habitat – construction stage only.		machinery for fitness of purpose. Availability of spill kits and training of personnel to deal with accidental spills. - No batching of wet cement on site and no discharge of concrete washout to artificial drain or watercourse. Concrete pouring to take place on dry days. - Similar measures for operational and decommissioning phases. - Works to be carried out in accordance with the Environment Management Plan and mitigation measures to be monitored by Environmental Clerk of Works. - A suite of water quality protection measures form part of the authorised Knocknmona Windfarm.	
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#### **Overall Conclusion: Integrity test**

The applicant determined that following detailed assessment of potential impacts and the implementation of mitigation, the construction and operation of this proposed development alone or in combination with other plans and projects will not adversely affect the integrity of this European site in view of its conservation objectives.

Based on the information provided, I am satisfied that adverse effects can be excluded for SPA sites that are hydrologically connected or are remote from the proposed development site and that no effects of any significance will occur.

The Dungarvan Harbour SPA is located approximately 7km from the proposed development. Conservation objective targets for the qualifying interest species and habitats could be undermined during construction of the proposed grid connection, and in-combination with other plans and projects, through reductions in downstream water quality or the spread of invasive species resulting in the loss or reduction of wetland habitat, the loss or reduction of suitable habitat for the SCI species or a reduction in their prey item species.

No habitat loss within the European designated sites will occur and adverse in-combination effects from water contamination and spread of invasive species can be effectively prevented by mitigation measures ensuring the protection of downstream watercourses that drain to Dungarvan Harbour. These mitigation measures will include the appointment of an Ecological Clerk of Works and completion of works in accordance with the Environmental Management Plan; silt fencing and covering of spoils heaps; measures to prevent accidental pollution; and measures for the scheduling of works in short sections. A suite of water quality protection measures also form part of the authorised Knocknamona Windfarm development.

Based on the information submitted, surveys carried out and analysis provided I am satisfied that no uncertainty remains.

The proposed development would not delay or prevent the attainment of the Conservation objectives of any of this SPA site.

#### 10.11. Appropriate Assessment Conclusions

- 10.11.1. Having carried out screening for appropriate assessment of the proposed underground electrical cabling linking wind farm (to be constructed) to operational substation with associated and ancillary site development works at Keereen Upper, Woodhouse or Tinakilly and Knocknamona, Dungarvan, County Waterford, it was concluded that it may result in significant effects on River Blackwater (Cork/ Waterford) SAC, Blackwater Estuary SPA and Waterford Harbour SPA. Consequently, an appropriate assessment was required of the implications of the project on the qualifying features of these sites in light of their conservation objectives.
- 10.11.2. Following an appropriate assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of these European sites, or any other European site, in view of the sites' Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects.
- 10.11.3. This conclusion is based on:
  - A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures and ecological monitoring in relation to the Conservation Objectives of River Blackwater (Cork/ Waterford) SAC, Blackwater Estuary SPA and Waterford Harbour SPA.
  - Detailed assessment of all aspects of the proposed development that could result in significant effects on European sites within a zone of influence of the proposed scheme.
  - Application of mitigation measures designed to avoid adverse effects on site integrity and likely effectiveness of same.
  - Detailed assessment of in combination effects with other plans and projects including historical projects, current proposals and future plans.
  - No reasonable scientific doubt as to the absence of adverse effects on the integrity of River Blackwater (Cork/ Waterford) SAC, Blackwater Estuary SPA and Waterford Harbour SPA.

## 11.0 Overall Conclusion

- 11.1. There is a consistent message throughout all levels of policy that there must be a transition to a low carbon and climate resilient society. This requires an increase in renewable energy generation and associated infrastructure, including wind and solar farms, grid reinforcement, storage development and interconnection. National Policy Objective 55 of the National Planning Framework seeks to "promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050." Objective RPO99 of the Regional Spatial and Economic Strategy also aims "...to support the sustainable development of renewable wind energy (on shore and off shore) at appropriate locations and related grid infrastructure in the Region in compliance with national Wind Energy Guidelines." At a local level, it is a strategic objective of the current Waterford City and County Development Plan "to promote and facilitate the provision of energy efficient, low carbon infrastructure and utilities and support infrastructure, whilst supporting industry to innovate, decarbonising the energy sector in order to contribute to a national target of zero net emissions of greenhouse gases in Ireland by 2050."
- 11.2. This is a third party appeal against Waterford City and County Council's decision to grant permission for underground electrical cabling linking the authorised Knocknamona Windfarm (to be constructed) to the operational Woodhouse Substation. The windfarm was originally granted in 2016 (PL93.244006) and permission was also granted in 2022 (ABP-309412-21) to increase turbine tip heights from 126m to 155m and to amend the height and design of the permitted meteorological mast. Judicial Review proceedings were taken to challenge decision ABP-309412-21 and the Court of Appeal referred the question to the CJEU on 5<sup>th</sup> December 2024 on whether valid conservation objectives for a SPA are a prerequisite to the Board's jurisdiction to carry out a valid appropriate assessment.
- 11.3. Permission had also been granted previously in 2021 by the Board for a grid connection, largely the same as that now proposed. This permission was quashed by Order of the High Court on 20<sup>th</sup> February 2023. The Board decided not to oppose the challenge to its decision on the basis that the Board meeting held on 22<sup>nd</sup> April

2020, at which the Board decided whether an oral hearing should be held, did not have the requisite quorum.

- 11.4. The original windfarm application was assessed on the basis of a grid connection over a greater distance to Dungarvan Substation. The current proposal to connect to Woodhouse Substation would be less disruptive and would better utilise existing infrastructure in closer proximity. The current proposed is therefore in accordance with the aims of Policy Objective UTL 13, which states that where existing infrastructural assets such as sub-stations, power lines and roads already exist within proposed development areas, then such assets should be considered for sustainable use by the proposed development where the assets have capacity to absorb the new development.
- 11.5. The proposed grid connection is assessed both individually and cumulatively within the EIA and Appropriate Assessment with all other relevant plans and projects. The main impacts with the proposed development, in combination with the authorised Knocknamona Windfarm, relate to the construction phase, where there is potential for effects to waterbodies, groundwater bodies, and designated downstream water dependant sites. However, it has been evaluated that these impacts would be imperceptible at worst when mitigation measures are implemented. No cumulative impacts on water are likely due to the different sub basins draining the site, implementation of the Environmental Management Plan, the Sediment Control Plan for the Knocknamona Windfarm, and measures such as the storage of these oils/fuels/chemicals in bunded containers. It has also been demonstrated that there will be no deterioration in the WFD status of surrounding surface water and groundwater bodies.
- 11.6. During the operational phase, the main beneficial impact of the proposed development, in combination with the authorised windfarm will on climate through the supply of renewable electricity to the equivalent of 22,857 homes, thereby reducing emissions from fossil fuel burning for energy production every year for the lifetime of the windfarm. There will also be cumulative benefits to population and human health due to improvements in the local economy arising from the establishment of the Knocknamona Windfarm community benefit scheme.

- 11.7. It should be noted that the effects of passage of time since previous assessments are presented in the cumulative baseline information for each sensitive environmental aspect. This addresses any remedial responsibility for previous environmental assessments carried out on site. I have also set out the reasons why the proposed development does not contribute to 'project splitting'. Individual and indeed cumulative assessments for different elements of an overall project may be carried out at different times and the law does not require planning permission for all integral parts of a large project to be obtained at the same time, or as part of a single application to one consenting authority. The cumulative impact of an entire project, as envisaged at the time of assessment, must be carried out as accurately and robustly, and as up to date as possible, and I am satisfied that there is sufficient information on file for the Board to fully assess the cumulative impacts and incombination effects of the grid connection, the authorised Knocknamona Windfarm, the constructed Woodhouse Windfarm and Substation and any other relevant plans or projects. I do not consider that the applicant should be required to carry out a full EIAR for all elements of windfarm development at this location from first principles or to reassess the consented development in its own right. The EIA Directive may be satisfied by multiple consents necessitated by the different stages in delivering a project.
- 11.8. In terms of Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of any European sites in view of the sites' Conservation Objectives. This conclusion is based on *inter alia*, detailed assessment of incombination effects with other plans and projects including historical projects, current proposals and future plans. The Appropriate Assessment also addresses the passage of time and any additional impact that may have occurred since previous assessments.
- 11.9. Overall, I consider that the EIAR and NIS provides the Board with adequate information to fully assess the cumulative impacts and in-combination effects of the proposed grid connection and any other relevant plans or projects. I am satisfied that these works are acceptable in principle and that the proposal complies with local, regional and national policy with respect to renewable energy and climate resilience. On balance, the proposed development will give rise to some cumulative

impacts, particularly during construction, but these impacts will be adequately mitigated and are largely outweighed by the positive impact the proposal will have in terms facilitating the generation of renewable energy for the region.

## 12.0 **Recommendation**

12.1. On the basis of the above assessment, I recommend that the Board should grant the proposed development for the reasons and considerations set out below.

## 13.0 Reasons and Considerations

- 13.1. In coming to its decision, the Board had regard to the following:
  - the nature, scale and extent of the proposed development;
  - Policies set out in the Waterford City and County Development Plan, 2022-2028;
  - The European Green Deal, 2020;
  - RED III (European Renewable Energy Directive (EU/2023/2413));
  - The National Planning Framework, 2018;
  - The National Development Plan, 2021-2030;
  - Climate Action and Low Carbon Development (Amendment) Act, 2021;
  - Climate Action Plan, 2024 (CAP24), which the proposed development is consistent with;
  - National Adaptation Framework, 2018;
  - National Energy and Climate Plan for Ireland, 2021–2030;
  - Regional Spatial & Economic Strategy for the Southern Region, 2020;
  - Documentation submitted with the planning application including the Environmental Impact Assessment Report, the Appropriate Assessment Screening and the Natural Impact Statement;
  - The submissions made in connection with the application;
  - Mitigation measures proposed for the construction and operational phases;

- The pattern of development in the area;
- The separation distances between the proposed development and existing dwellings or other sensitive receptors;
- 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 absence of likely significant effects of the proposed development on European sites;
- The report of the Inspector.

### Appropriate Assessment: Stage 1

The Board agreed with and adopted the screening assessment and conclusions carried out in the Inspector's report that the only European sites in respect of which the proposed development has the potential to have a significant effect are the Blackwater River (Cork/Waterford) SAC [Site Code: 002170], Blackwater Estuary SPA [Site Code: 004028] and the Dungarvan Harbour SPA [004032].

### Appropriate Assessment: Stage 2

The Board considered the Natura Impact Statement, and other associated documentation submitted with the application and appeal, the mitigation measures contained therein, the submissions and observations on file and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development on the aforementioned European sites in view of the sites' Conservation Objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment. In completing the appropriate assessment, the Board considered, in particular, the following:

- (a) the likely direct and indirect impacts arising from the development and the proposed development, both individually, when taken together and in combination with other plans or projects,
- (b) the mitigation measures, which are included as part of the current proposal, and
- (c) the Conservation Objectives for the European sites.

In completing the appropriate assessment, the Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European sites, having regard to the sites' Conservation Objectives. In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives.

### Environmental Impact Assessment:

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 other associated documentation submitted in support of the application,
- (c) the submissions from the planning authorities, the observers and prescribed bodies in the course of the application, and
- (d) the Inspector's report.

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development, and identifies and describes adequately the direct, indirect, residual and cumulative effects of the proposed development on the environment. The Board agreed with the examination, as 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 submissions made in the course of the application.

### Reasoned Conclusion and Significant Effects

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated as follows:

 Moderate cumulative and positive impact on Population and Human Health due to improvements in the local economy arising from the establishment of the Knocknamona Windfarm community benefit scheme.

- Imperceptible cumulative **Biodiversity** impacts with authorised Knocknamona Windfarm on instream aquatic habitat quality and flow regimes. Mitigation will nonetheless be implemented to protect water quality through works scheduling, invasive species management, and measures to mitigate against the release of suspended solids, fuels and oils, and cements.
- Potential for cumulative impacts on Water is reduced by the location of the proposed grid connection and Knocknamona Windfarm across different river sub basins, the absence of proposed instream works and the implementation of the Environmental Management Plan and Sediment Control Plan for the windfarm project.
- Beneficial cumulative impact of the proposed grid connection and Knocknamona Windfarm on Climate through the supply of renewable electricity to the equivalent of 22,857 homes thereby reducing emissions from fossil fuel burning for energy production every year for the lifetime of the windfarm
- No greater than slight potential for impacts on Material Assets and Architectural Heritage (along construction traffic haul routes) that will be mitigated by traffic cones and speed restrictions, abnormal load escorts and signage, as necessary.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, both by itself and in combination with other plans and projects in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

### **Proper Planning and Sustainable Development:**

It is considered that, subject to compliance with the conditions set out below, the proposed development would be in accordance with European, National, Regional and Local planning and related policy, would be consistent with the provision of the Climate Action Plan 2024 and would make a positive contribution towards Ireland's renewable energy and security of energy supply requirements. Furthermore, the proposed development would have an acceptable impact on the environment and on
the amenities of the area. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

# 14.0 **Conditions**

1.	The development shall be carried out 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 with the planning authority, the
	developer shall agree such details in writing with the planning authority
	prior to commencement of development and the development shall be
	carried out and completed in accordance with the agreed particulars.
	Reason: In the interests of clarity.
2.	All of the environmental, construction and ecological mitigation measures
	set out in the Environmental Impact Statement and Natura Impact
	Statement accompanying the application to the Planning Authority and
	other particulars submitted with the application and the appeal to the Board
	shall be implemented 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 order.
	Reason: In the interest of clarity and the protection of the environment
	during the construction and operation phases of the development.
3.	The period during which the development hereby permitted may be carried
	out shall be 10 years from the date of this order.
	Reason: Having regard to the nature of the development, the Board
	considers it appropriate to specify a period of validity of this permission in
	excess of five years.
4.	The construction of the development shall be managed in accordance with
	a Construction Management Plan, which shall be submitted to, and agreed
	in writing with, the Planning Authority prior to commencement of
	development. This plan shall provide details of intended construction
	practice for the development, including hours of working, noise and dust

	management measures, off-site disposal of construction/ demolition waste,
	measures for the storage of oils and fuels on site, measures for the
	protection of ground and surface waters, and arrangements for temporary
	signage/ traffic management.
	Reason: In the interests of public safety and residential amenity.
5.	The developer shall facilitate the preservation, recording and protection of
	archaeological materials or features that may exist within the site. In this
	regard, the developer shall -
	(a) notify the planning authority in writing at least four weeks prior to
	the commencement of any site operation (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, and
	(c) provide arrangements, acceptable to the planning authority, for
	the recording and for the removal of any archaeological material
	which the authority considers appropriate to remove.
	In default of agreement on any of these requirements, the matter shall be
	referred to An Bord Pleanála for determination.
	<b>Reason</b> : 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.
6.	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 upon 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.
7.	The developer shall pay to the Planning Authority a financial contribution in
	respect of public infrastructure and facilities benefiting the 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, as amended. The contribution shall
	be paid prior to 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 the fault of such
	agreement, the matter shall be referred to An Bord Pleanála to determine
	the proper application of the terms of the Scheme.
	Reason: It is a requirement of the Planning and Development Act 2000, as
	amended, that a condition requiring a contribution in accordance with the
	Development Contribution Scheme made under section 48 of the Act be
	applied to the permission.

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.

Donal Donnelly

Senior Planning Inspector

28<sup>th</sup> February 2025

# 15.0 Appendix 1 – Relevant Provisions from Waterford City and County Development Plan, 2022-2028

# Chapter 6: Utilities Infrastructure, Energy & Communications

#### UTL 13 – Renewable Energy

It is the policy of Waterford City and County Council to promote and facilitate a culture of adopting energy efficiency/ renewable energy technologies and energy conservation and seek to reduce dependency on fossil fuels thereby enhancing the environmental, social and economic benefits to Waterford City and County. It must also be recognised that other sources of electricity generation such as natural gas, particularly renewable and indigenous gas, will continue to have a role to play in the transition to a low carbon economy. As such, renewable energy developments may require support from such sources in times of high energy demand. This will be achieved by:

- Supporting the delivery of renewable energy to achieve the targets identified in Table 6.3 of the Development Plan.
- Facilitating and encouraging, where appropriate, proposals for renewable energy generation, transmission and distribution and ancillary support infrastructure facilities including the necessary infrastructure required for the development of offshore renewable energy developments developed fully in accordance with the Waterford Renewable Energy Strategy, the wind energy designation map (Appendix 2 of the RES), the Waterford Landscape and Seascape Character Assessment undertaken to inform this Development Plan, and the National Wind Energy Guidelines, or any subsequent update/ review of these
- The Council recognizes and supports the role that the County can play in facilitating the onshore infrastructure required for the construction, operation and maintenance of offshore wind farm developments. This infrastructure includes but is not limited to: construction facilities, storage and lay-down areas, cable landfalls, onshore cable routing to substations, port and harbour infrastructure and coastal operations and maintenance bases, as well as use, reuse or repowering of existing infrastructure where appropriate.

- The Wind Energy Designation Map and the Landscape and Seascape Character Assessment Map identify different landscape character areas and associated landscape sensitivities. These designations encompass the concept of buffers between areas of sensitivity which vary across the different landscape character types and their different locations. These buffers allow for a gradual change between contrasting landscape sensitivities and associated wind energy designations to be considered, as necessary, when determining any development proposal.
- Promote and encourage the use of renewable energy, and low carbon resources, namely solar photovoltaic, geothermal, heat pumps, district heating, solar thermal, hydro, tidal power, offshore and onshore wind, biomass as well as microgeneration among business, agriculture, education, health, and other sectors.
- Promoting, encouraging, ensuring, and facilitating community engagement, participation and implementation of/ in renewable energy projects.
- Implementing, including in the Council's own activities and in the provision of services/ works, the use and integration of low carbon, renewable energy infrastructure and technologies.
- Supporting appropriate options for, and provision of, low carbon and renewable energy technologies and facilities, including the development and provision of district heating (and/ or other low carbon heating technologies); anaerobic digestion and the extraction of energy and other resources from sewerage sludge.
- The preparation and implementation of a Climate Action Plan (including adaptation and mitigation measures) for Waterford.
- To support in conjunction with other relevant agencies, wind energy initiatives, both onshore and offshore, and wave energy, and onshore grid connections and reinforcements to facilitate offshore renewable energy development when these are undertaken in an environmentally acceptable manner.

At initial design stage full consideration should be to reasonable alternatives and existing infrastructural assets. In this regard environmental assessments should address reasonable alternatives for the location of new energy developments, and where existing infrastructural assets such as sub-stations, power lines and roads already exist within proposed development areas, then such assets should be considered for sustainable use by the proposed development where the assets have capacity to absorb the new development. All planning applications for Renewable Energy Projects such as wind farms and solar farms shall be accompanied by a Decommissioning and Restoration Plan (DRP) consistent with the Wind Energy Guidelines 2006 or any update thereof. Issues to be addressed shall include details of proposed restorative measures, the removal of above ground structures and equipment, the restoration of habitats, landscaping and/or reseeding roads etc

#### UTL 12: Energy Strategy/ Masterplan

Undertake a review/ update of the Waterford Renewable Energy Strategy during the lifetime of this Development Plan, in order to assist in creating evidence-based, realistic and costed pathways for Waterford to achieve its just transition to carbon emission reduction targets to 2030 and 2050. In addition to comprising an update to the existing renewable energy context and technologies in Waterford, the review will chiefly comprise and provide an overall, integrated Energy Strategy/ Masterplan for Waterford, which takes into account (inter alia): -

- A detailed and comprehensive energy assessment, incorporating a Spatial Energy Demand and Generation Analysis.
- Heat mapping which identifies areas for Strategic Energy Zones and District Heating (or other low carbon heating technologies) opportunities to support a just transition to clean energy and a circular economy.
- Identifying specific opportunities and projects, actions and targets associated with improved energy efficiency.
- Lessons learned from the Decarbonising Zone 'living laboratory', and the need to advance this concept across Waterford, in line with evolving climate policy and legislative requirements.
- The creation of a smarter local energy model, enabling a smarter, more coordinated approach to planning and meeting distinct local energy needs that will link with developments at the regional and national scale.

# UTL 14 - Energy Developments & Human

Health Proposals for energy development should demonstrate that human health has been considered, including those relating to the topics of:

- Noise (including consistency with the World Health Organisation's 2018 Environmental Noise Guidelines for the European Region developments must comply with the Wind Energy Development Guidelines (2006), or any subsequent update/ review of these),
- Shadow Flicker (for wind turbine developments, including detailed Shadow Flicker Study),
- Ground Conditions/Geology (including landslide and slope stability risk assessment),
- Air Quality; and,
- Water Quality.

# **UTL 19 - Undergrounding Cables**

Where undergrounding of cables is being pursued, proposals should demonstrate that environmental impacts including the following are minimised:

- Habitat loss as a result of removal of field boundaries and hedgerows (right of way preparation) followed by topsoil stripping (to ensure machinery does not destroy soil structure and drainage properties).
- Short to medium term impacts on the landscape where, for example, hedgerows are encountered.
- Impacts on underground archaeology.
- Impacts on soil structure and drainage; and
- Impacts on surface waters as a result of sedimentation.

# Development Plan Appendix 7 – Renewable Energy Strategy 2016-2030

This Strategy provides a renewable energy overview, sets out the legislative and policy context and details the energy profile of Waterford City and County. In terms

of onshore wind, it is noted that there were four operational wind farms in Waterford with a combined generation capacity of 63 MW, as of the end of 2015.

It is acknowledged that supporting infrastructure required for developing renewable energy projects includes access and connection to grid infrastructure, distribution networks, and accessibility.

With respect to grid connection, it is highlighted that viability is an important consideration in the sense that the site may be a considerable distance from the network or the network may be unable to handle extra capacity potential. It is stated that additional support infrastructure including substations, transformer points, and power lines will likely be required, between 2016-2030 to cater for the additional electrical demand, which the Strategy has identified to increase at a rate of between 6% - 7% per year up to 2030.

It is the policy of Waterford City and County Council to promote and support the development of renewable energy technologies most suited to Waterford, and to seek to reduce dependency on fossil fuels, thereby enhancing the environmental, social and economic benefits to Waterford City and County.

The Council will assess all proposals for renewable energy development based on sustainable development principles. This shall include appropriate consideration of landscape capacity to accommodate renewable energy developments, Water Framework Directive and River Basin District Management Plans, land ownership rights, other environmental considerations (drainage, fisheries, invasive species, wetlands and riparian zones), and socio-economic considerations (other land uses, impact on sensitive receptors including local residents, areas of tourism and landscape amenity value, material assets including the architectural and archaeological heritage, and the cultural heritage).

The Renewable Energy Strategy highlights the role of Spatial Energy Demand Analysis as a means of bridging the gap between energy planning and land use planning. It is also recognised that energy and climate change mitigation issues should be included as an additional layer in the development plan making process to ensure land use planning and energy planning are fully integrated.

The Strategy encourages both developers and local communities to engage in meaningful consultation in respect of any renewable energy development proposal

over and above the statutory requirements. It is noted that some renewable energy technologies lend themselves particularly well to a cooperative model of ownership and operation, e.g. Templederry Community Windfarm. The potential for community benefit is also highlighted.