



An
Bord
Pleanála

Inspector's Report

ABP-313139-22

Development

Proposed 110kV substation and underground grid connection. A Natura Impact Statement has been prepared in respect of the proposed development.

Location

Bendinstown, Gilbertstown, Kellistown East, Kellistown West, Ballycurragh, Ardbearn and Ballynunnery, Co. Carlow

Planning Authority

Carlow County Council

Applicant(s)

Garreenleen Solar Farm Limited

Type of Application

Application for approval under Section 182A of the Planning and Development Act

Prescribed Bodies

Carlow County Council
Department of Housing, Local Government and Heritage
Geological Survey Ireland GSI

Inland Fisheries Ireland (IFI)
Transport Infrastructure Ireland (TII)

Observer(s)

Denise & Oliver Hennessy
Jamie & Lorraine Kealy
Jimmy Corcoran
Mary & Padraig Fitzpatrick
Olive Gavigan
Peter and Clare Scully
Thelma & Paul Nolan
Valerie Murphy

Date of Site Inspection

19th August 2022

Inspector

Alaine Clarke

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1.0 Introduction

- 1.1. An application under the provisions of Section 182A of the Planning and Development Act, 2000, as amended, was received by An Bord Pleanála from Garreenleen Solar Farm Ltd for the development of a 110kV substation and underground grid connection. The proposed substation would serve a solar farm which was permitted under an application made to Carlow County Council (planning reg. ref. 20/143) and subsequently appealed to An Bord Pleanála (ref. 307891).
- 1.2. Following pre-application consultation, the Board determined (ABP 311187-21) that the proposed development falls within the scope of section 182A of the Planning and Development Act, 2000 (as amended) and that the application should be made directly to the Board.

2.0 Site Location and Description

- 2.1. The 6.64 hectare site is in a rural area in County Carlow where the dominant agricultural use would be tillage. The site is c.1.2km from Rathoe village to the northeast, c. 5km from Tullow town to the north and c. 7km from Carlow town to the northwest.
- 2.2. The site of the proposed substation lies partly within lands to be developed as Garreenleen Solar Farm. The panels of the permitted solar farm development would be to the south of the proposed substation. The substation site comprises a rectangular plot of land and the substation would be positioned on the western side of this plot, extending to the east to the adjoining public roads (L-7112 and L-7111).
- 2.3. The proposed underground cable connection, 4.099km in length, will follow the path of the L-7112, L-3046 and L-3053 and L-30535 public roads to the boundary of the Kellis substation. Before the junction of the L-7112 and L-3046, the cable route will cross under the River Burren and Garreenleen River along the L-7112 and two culverts along the L-3046, one of which is over the Ardbearn Stream, a tributary of the Burren.
- 2.4. The topography in the area is generally fairly flat with some local undulation. The site levels of the proposed substation varies from c.81m O.D to 86m O.D. The site falls from the east, along the public road, to the western boundary of the proposed

substation, where it adjoins Garreenleen Stream, a narrow watercourse which flows north and joins with the Burren River 800m to the north. The land rises beyond the stream to the west, and is the site of archaeological monuments, a graveyard (RMP CW013-023003) and font (RMP CW013-023002). The river crossings are located within the environs of Ballynunnery Castle (RMP CW013-022) and Kilmurry Church (RMP CW013-020001) and graveyard (RMP CW013-020002). The location of the proposed permanent entrance on the L-7112 is located within the zone of influence of an enclosure (RMP CW013-024). The proposed cable route also passes close to a ring-ditch (RMP CW013-120).

- 2.5. There are mature hedgerows along the eastern boundary of the substation site where it adjoins the public road. The site of the substation is otherwise located in a large open field.
- 2.6. The local road network in the vicinity of the site is made up of narrow county roads. There are some sharp bends including in the immediate vicinity of the site of the substation where there is a T-junction around which is a small cluster of houses.
- 2.7. The Burren River joins the River Barrow and River Nore SAC (site code 002162) c.14km downstream.

3.0 Proposed Development

- 3.1. The proposed development comprises:
 - 110kV substation with 110kV Eirgrid compound and 33kV customer compound;
 - Two control buildings, lighting protection, perimeter security fencing and security lighting;
 - Grid connection between proposed substation and the existing Kellis 220Kv substation comprising 110kV underground electricity cables of c.4.099km including river, watermain and culvert crossings, including horizontal directional drill crossings of the River Burren and Garreenleen Stream;
 - On exiting the site, the proposed cable connection will follow the path of the L-7112, L-3046 and L-3053 and L-3053 public roads to the boundary of the

Kellis substation. Before the junction of the L-7112 and L-3046, the cable route will cross under the River Burren and Garreenleen River.

- Temporary construction access (from L-7111) and permanent operational access (from L-7112, via an existing agri-entrance) including 4m access track within the site.
- Temporary construction compound;
- Surface water drainage, water services (bored well) and foul holding tank (for removal off site by licensed contractor);
- Site reprofiling and formation of berms;
- Site restoration and landscaping.

The proposed substation would facilitate the export of renewable electricity generated by the permitted Garenleen Solar Farm to the national electricity grid.

The following documents are submitted with the application:

- Natura Impact Statement;
- Planning and Environmental Report;
- Site Specific Flood Risk Assessment;
- Drainage Report;
- Ecological Impact Assessment;
- Archaeological Impact Assessment;
- Landscape and Visual Impact Assessment;
- Photomontages;
- Drawings and technical plans;
- EIA Screening Report;
- Construction Methodology Report;
- Copies of Notification Letters;
- Letter of consent;
- Application form;

- Copies of public notices.
- Cover letter.

4.0 Consultations

4.1. Details of the application were circulated to the following prescribed bodies:

- Minister for Housing, Local Government and Heritage
- Minister for the Environment, Climate and Communications
- Failte Ireland
- Inland Fisheries Ireland (IFI)
- Carlow County Council
- Transport Infrastructure Ireland (TII)
- Commission for Regulation of Utilities, Water and Energy
- Irish Water
- The Heritage Council
- An Taisce
- An Chomhairle Ealaíon
- Geological Survey Ireland (GSI)

Responses were received from the Department of Housing, Local Government and Heritage (Development Applications Unit), Carlow County Council, TII, IFI and GSI which are summarised below.

5.0 Submissions

5.1. Prescribed Bodies

5.1.1. Department of Housing, Local Government and Heritage (Development Applications Unit)

- 5.1.2. The Department notes that the Archaeological Impact Assessment Report (AIAR) does not include an assessment of the potential impact on underwater archaeological heritage of 2 no. proposed horizontal directional drill crossings of the River Burren and Garreenleen Stream. Both crossings are located within the environs of Ballynunnery Castle (RMP CW013-022----) and Kilmurry church (RMP CW013-020001-) and graveyard (RMP CW013-020002-) monuments which represent the physical remains of a medieval manorial centre at this location, noting that historic maps show mills and associated infrastructure in the area. The Department also notes that whilst the existing bridge appears to be 18th-19th century it considers it likely there was an earlier bridge or fording point at this location to serve the manorial centres, traces of which may remain today. Careful consideration of the directional drilling beneath Ballynunnery Bridge is therefore required in relation to underwater archaeological material in addition to the stability of the existing bridge.
- 5.1.3. An Underwater Archaeological Impact Assessment (UAIA) report is required to be compiled and submitted prior to a decision being made on the application. The scope of the UAIA is set out in the Submission and includes a requirement for an architectural assessment of Ballynunnery Bridge, site investigation (direct and indirect impacts), a licensed dive/wade assessment(s) of the River Burren, Garreenleen Stream and any other waterway crossings) to be completed well in advance of construction to develop an informed archaeological strategy in agreement with the Department.
- 5.1.4. On completion of [survey] works, the archaeologist shall submit a written report to the Department to include a project specific Archaeological Impact Statement that comments on the degree to which the extent, location and levels of all proposed works (including site investigation works) required for the development will affect any archaeological assets that may have been identified in the UAIA and/or areas of archaeological potential. All recommendations will require the advance agreement of the Department.
- 5.1.5. The Department stipulate an archaeological monitoring condition to be included with a grant of permission.
- 5.1.6. Carlow County Council

- 5.1.7. The report notes that the Environment Section is satisfied with the contents of the NIS report and that the proposed development will not adversely impact on the River Barrow and River Nore SAC. The reports requests that the mitigation measures are specific.
- 5.1.8. The Transportation Department are not aware of any localised flooding with the site or local road network. The Department require (i) consultation prior to construction of entrances (ii) re-instatement of public roads must be in accordance with the requirements specified in the Guidelines for Managing Openings in Public Roads and (iii) structural surveys of the river bridge at Gilberstown is required prior to and post works; any repairs from resulting damage to be borne by the applicant.
- 5.1.9. The Planning Authority is of the view that the proposed development can be visually absorbed within the rural landscape and suggest additional landscaping around the perimeter of the development.
- 5.1.10. The report notes that the Water Services Department seek details of where the proposed cable cross water mains. It also advises the applicant to connect to the water mains.
- 5.1.11. The report concludes by stating that the Planning Authority has no objection to the proposed development to allow for a connection to the national grid noting that the proposed development will assist in achieving a reduction in overall greenhouse gas emissions. Reference is made to the development contribution scheme 2015-2021 stating that the levies applicable amount to €13,912.50.
- 5.1.12. TII
- 5.1.13. Transport Infrastructure Ireland notes that the proposal does not directly impact the strategic national road network, however it is unclear if the sub-station components to site will represent abnormal loads, noting that a permit may be required from the relevant local authority/authorities.
- 5.1.14. The applicant should consult with all relevant companies, contractors and road authorities to ascertain the operational requirements such as delivery timetabling etc and to ensure that the strategic function of the national road network is safeguarded.
- 5.1.15. TII recommends resolution of these matters in advance of any decision on the application where abnormal loads are a feature of the development proposals. Any

damage caused to the pavement of the national road shall be rectified and details in this regard shall be agreed with the Road Authority.

5.1.16. IFI

5.1.17. The IFI submission notes that the site is within the catchment of the Burren River and includes a crossing of the Burren River and a tributary of the Burren. The report further notes that the Burren is one of the more important salmonid tributaries of the Barrow SAC with excellent salmon spawning/nursery habitat in the vicinity of the proposed development and noting that this section of river close to the development site was not realigned in the mid-1800s unlike other parts of the Burren River.; that almost all of the salmon, trout and lamprey spawning throughout the Barrow catchment occurs in the tributaries. Noting that waters carry food supply to the downstream fishers they can also carry deleterious matter and request that particular regard is had to working with cement, siltation of waters, and oil and fuel storage.

5.1.18. A list of concerns is provided, of note:

- The proposal to use directional drilling is welcomed. If groundwater is encountered, treatment of pumped waters is required;
- IFI disagree that the Burren is described in the application as a depositing lowland river; consider it to be an eroding river.

5.1.19. GSI

5.1.20. Reference is made to available GSI resources which may be useful. Notes that an aquifer classed as 'poor aquifer - bedrock which is generally unproductive except for local zones', underlies the site. The groundwater vulnerability at the site is variable and advises to use the Groundwater Viewer to identify areas of high to extreme vulnerability. GSI would appreciate site investigation reports carried out.

5.2. **Public Submissions**

5.2.1. 8 no. submissions were received by the Board from the following:

- Denise & Oliver Hennessy
- Jamie & Lorraine Kealy
- Jimmy Corcoran

- Mary & Padraig Fitzpatrick
- Olive Gavigan
- Peter & Clare Scully
- Thelma & Paul Nolan
- Valerie Murphy.

5.2.2. The following issues are raised:

- This application is the second of three applications made by the developer for these solar farms and substations – they should all be assessed as one development, including consideration of cumulative effects;
- Lack of public consultation on the proposed development / is there a bigger plan people don't know about;
- Confusion arising over the lack of information and the lodging of various applications, causing undue stress;
- Permission granted by An Bord Pleanála under planning ref. 20/143 without addressing concerns of local families;
- No recent environmental report/ecological impact assessment on the flora and fauna in the area/ home to vast amount of wildlife/concern for impact on wildlife. Electromagnetic Radiation is known to cause habitat degradation displacing large numbers of wildlife;
- No proper E.I.S
- The Natura Impact Statement assessment was carried outside the optimum period for habitat, during hibernation; no reference to migrating birds or hibernating animals or insects. How are red and amber listed birds going to be protected;
- No scientific study carried out as to the health impacts of the proposed development, including the impact of the geometric energy / electromagnetic radiation. The WHO considers electro magnetic radiation from sub stations to cause headaches and restlessness to people living near them;

- Would hugely impact residential amenity relating to light, security, view, noise, health and well-being, including that of pets; disruption on account of laying cables;
- Would depreciate value of resident's homes;
- Risk of explosion;
- The solar farm and substation are unnecessary due to proximity of the existing Kellistown plant, which has capacity;
- The proposed development is greater in size than any other such development, nor will it effectively work to capacity;
- No investigation has taken place of the historic sites impacted by such a development, some of which are proximate to the site;
- The disturbance of the River Burren, on otter and fish, has not been considered or studied;
- Concern for disturbance of River Burren and the Garrenleen River. The development and drilling of the river indirectly affects the habitats and marine wildlife of the River Barrow and River Nore SAC and Slaney SAC. It is the most natural unspoiled stretch of the Burren and is of significant importance for spawning salmon and trout that feed into the Barrow;
- Risk of flooding and consequences for homes and lack of available house insurance. Reference to recent flooding at Ballintrane bridge and along the L7111;
- New entrances on quiet country road are a traffic risk;
- Resurfaced roads will have to be dug up;
- Narrow country roads not capable of taking volume or size of traffic;
- No research into the recycling of the parts of these structures;
- Request that permission is refused;
- Proposed development would destroy the countryside;

- Premium quality arable and fertile land - consideration should be given to what the land could produce/leave land to grow crops referencing food shortage;
- Locals cannot get permission in the area but outside companies can;
- Don't want to see more pylons in the area;
- 9 bridges are planned for the area, which seems like a lot;
- If all planned works proceed, the community will be encircled by cables, solar farms, substation and battery storage facilities
- Unsightly structure, out of character and intrusive on the landscape;
- Other more suitable land for substations and solar panels, removed from residential areas and agricultural land;
- God gave us good agricultural land to be used for that purpose;
- Would you want to live in Rathoe or surrounding areas;
- Should have proper guidelines as a standard;
- Development will set a precedence for other energy companies with further phases from this development company;
- Why is a state agency not looking for planning, if the infrastructure is so important;
- What happens to the substations once the solar farms are spent;
- Why are developers picking such a small area for more solar farms and substations – they should look to develop them in County Cork.

5.3. Applicant Response to Submissions

5.3.1. The applicant prepared a response to the submissions, the main points of which are summarised as follows:

- Welcomes the general conclusion of Carlow County Council which has no objection to the proposed development;

- The applicant has no objection to undertaking an Underwater Archaeological Impact Assessment in advance of construction, rather than pre-decision;
- Noting that the IFI welcomes directional drilling, IFI requirements will be adhered to;
- As per the Site Access Report there will be an abnormal load vehicle. A swept path analysis confirms the load can negotiate the local road and access to the site. It is envisaged there will no issues in along national routes. Appropriate measures will be put in place;
- Acknowledging the GSI submissions and reference to available databases.
- With respect to third party submissions:
 - Reiterating the need for the project having regard to Climate Action Plan targets;
 - Noting that statutory provisions require that the permission for the solar farm is applied for locally while the 110kV substation/grid connection must be applied for via An Bord Pleanála;
 - A thorough review of heritage sites was undertaken;
 - Potential impacts of flora and fauna have been investigated in full;
 - The existing agri-entrance will be upgraded; operational traffic will be a significant decrease compared to existing agri-generated traffic;
 - Reference to the loss of good quality agricultural land is subjective; the project represents a form of agricultural diversification.

6.0 Planning History

6.1. On the Site:

- **ABP-307891-20:** the Board overturned the decision of the planning authority (Carlow County Council Register Ref. 20/143) to refuse permission for Garreenleen Solar Farm. This is a development of solar panels and ancillary development on a 127-hectare site. The majority of the defined site lies to the

south of the proposed substation. A Natura Impact Statement (NIS) was submitted with the application.

- **Carlow Co. Co. Reg. Ref. 22/199:** Notification of decision to Grant Permission dated 9th August 2022 for an underground electricity interconnector cable comprising a 33kV triple circuit cable of c.92m to facilitate the interconnection from the permitted solar farm to a 110kV substation which is the subject to the application to An Bord Pleanála (Reference VA01.313139). The development is a revision to the approved layout of the solar farm previously permitted under ABP 307891-20. A Natura Impact Statement was submitted with the application.

6.2. Nearby:

- **ABP–303821-19:** the Board, by order dated 23rd September 2019, upheld the decision of the planning authority (Carlow County Council Register ref. 18/23) to grant permission for a 100 MW battery storage facility at a nearby site to the northeast (south of Kellis substation).
- **Carlow Co. Co. Reg. Ref. 21/445:** Undecided at time of drafting report. Permission is sought for a 10 year planning permission for the development of a synchronous condenser grid support facility, which will connect to the adjoining ESB Kellistown Electricity Substation.
- **Carlow Co. Co. Reg. Ref. 22/163:** Undecided at time of drafting report. Permission is sought for a solar farm and associated works, comprising a total area of c.128 hectares and includes amendments to a neighbouring solar farm planning permission (Carlow County Council planning ref. 20/143 & An Bord Pleanála ref. 307891-20) to facilitate future grid connection and additional access tracks for the proposed development.

7.0 Policy Context

7.1. National Planning Framework (NPF)

- 7.1.1. The NPF is a high-level strategic plan to shape the future growth and development of the country to 2040. It is focused on delivering 10 National Strategic Outcomes

(NSOs). NSO 8 focuses on the 'Transition to a Low Carbon and Climate Resilient Society' and recognises the need to harness both on-shore and off-shore potential from energy sources including solar and deliver 40% of our electricity needs from renewable sources.

- 7.1.2. It is stated in the NPF that "new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand".
- 7.1.3. Section 5.4, 'Planning and Investment to Support Rural Job Creation', notes that in meeting the challenge of transitioning to a low-carbon economy, the location of future national renewable energy generation will, for the most part, need to be accommodated on large tracts of land that are located in a rural setting, while also continuing to protect the integrity of the environment and respecting the needs of people who live in rural areas.
- 7.1.4. It is a National Policy Objective (NPO 55) 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'.

7.2. Ireland's National Energy and Climate Plan 2021-2030

- 7.2.1. The National Energy and Climate (NECP) Plan is an integrated document mandated by the European Union to each of its member states in order for the EU to meet its overall greenhouse gases emissions targets. The plan establishes key measures to address the dimensions of the EU Energy Union, including:
 - To achieve a 34% share of renewable energy in energy consumption by 2030.
 - To increase electricity generated from renewable sources to 70%.

7.3. Climate Action Plan 2021 – Securing our Future

- 7.3.1. This plan sets out a road map for taking decisive action to halve our greenhouse gas emissions by 2030 and reach net zero emissions by 2050. Among the most

important measures in the plan is to increase the proportion of renewable electricity, up to 80% of all electricity generation by 2030.

7.3.2. The Plan notes that:

- additional electricity generation and transmission infrastructure will be a critical enabler to achieve our renewable energy and emissions targets. Public acceptance of that additional generation and transmission infrastructure will be crucial to this transition;
- to meet the required level of emissions reduction, by 2030 the grid will be expanded and reinforced – through the addition of lines, substations, and new technologies;
- Achieving the renewable electricity target of up to 80% will entail investment of tens of billions of Euro, including in the installation and maintenance of generation assets, and associated infrastructure and services;
- The electricity system will be strengthened through advanced building/upgrading of the grid and supporting infrastructure at key strategic locations... The building of new substations, associated infrastructure and new technologies will also be incorporated, along with strategic upgrading of existing substations, to ensure efficient long-term and timely development of the system.

7.4. **Regional Spatial Economic Strategy (RSES)**

7.4.1. The RSES for the Southern Region provides a regional policy position for the consideration of renewable energy in land-use planning. Chapter 8 of the RSES deals with Water and Energy Utilities and notes that “the existing infrastructure...is essential for the continued provision of a secure and reliable electricity supply.”

7.4.2. The following Regional Policy Objectives are noted:

- RPO 96 – Integrating Renewable Energy Sources - to support the sustainable development, maintenance and upgrading of electricity and gas network grid infrastructure to integrate renewable energy sources and ensure our national and regional energy system remains safe, secure and ready to meet increased demand as the regional economy grows.

- RPO 100 – Indigenous Renewable Energy Production and Grid Injection - to support the integration of indigenous renewable energy production and grid injection.
- RPO 219 - New Energy Infrastructure - to support the sustainable reinforcement and provision of new energy infrastructure by infrastructure providers....
- RPO 222 - Electricity Infrastructure - to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects ...

7.5. Development Plan

7.5.1. The Carlow County Development Plan 2022-2028 is the operative plan, and it came into effect on 4th July 2022.

7.5.2. The following are particularly relevant:

Chapter 6: Infrastructure and Environmental Management

- EI P1: support and facilitate the reinforcement and development of enhanced energy infrastructure, and associated networks, to serve the existing and future needs of the County and Region. This will include the delivery of the necessary integration of transmission network requirements facilitating linkages of renewable energy proposals to the electricity and gas transmission grid, in a sustainable and timely manner, subject to proper planning and environmental considerations.
- EI P2: Ensure that development proposals for energy transmission and distribution infrastructure follow best practice with regard to siting and design...

Chapter 7: Climate Action and Energy

- RE P1: Encourage and facilitate the production of energy from renewable sources, such as from wind, solar, bioenergy, hydroelectricity, and

geothermal, subject to compliance with proper planning and environmental considerations.

- RE 01: Seek to achieve a minimum of 130MW of renewable electricity in the County by 2030, by enabling renewable energy developments, and through micro-generation including rooftop solar, wind, hydro-electric and bioenergy combined heat and power (CHP).
- IF P1: Support the development, reinforcement, renewal, and expansion of key supporting infrastructure to facilitate renewable energy developments, subject to compliance with proper planning and environmental considerations.

Chapter 9: Landscape and Green Infrastructure

- General landscape objectives LA 01 and LA 02 and policies LA P1, LA P2, LA P5, LA P6, PA P8 are relevant, particularly LA P5 and LA P11 which require that the landscape quality and visual integrity of, and views to and from, river valleys and river corridors are protected.
- The site is located in the Central Lowlands character area, described as occupying a substantial portion of the County, in an area designated as farmed lowland.
- The landscape sensitivity is assessed at 2/3 in a 5-point scale where 5 is the highest sensitivity and 1 is the lowest.
- The relevant policy objective is as follows: new developments to maintain integrity of landscape character area through careful location, siting and design.

Chapter 16 deals with Development Management Standards.

- 16.11.10 – Underground cables – requirement to demonstrate that environmental impacts are minimised;
- 16.12.2 – Energy Development Projects – will be considered in the context of Government policy and competing Council policy. Proposals should demonstrate that human health has been considered. Where existing infrastructural assets (such as substations) already exist, such assets should be considered for sustainable use where there is capacity.

7.5.3. A renewable Energy Strategy for the County has been prepared alongside this Plan is incorporated as Appendix VI.

7.6. Natural Heritage Designations

7.6.1. The application site is not located within or immediately adjacent to any sites with a natural heritage designation The nearest designated sites are:

- Ardristan Fen, proposed Natural Heritage Area (pNHA), site code 000788, 2.7km to the east;
- Slaney River Valley Special Area of Conservation (SAC), site code 000781, 4.8km to the east;
- Slaney River Valley pNHA, site code 000781, 5.9km to the south-east;
- River Barrow and River Nore SAC, site code 002162, 9.4km to the west;
- Cloghrystick Wood pNHA, site code 000806, 9.5km to the east.

8.0 EIA Screening

8.1. The EIA Screening Report submitted with the application contends that the proposed development is not a project defined by Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended, requiring a mandatory Environmental Impact Assessment Report (EIAR).

8.2. Notwithstanding that the applicant prepared and submitted a screening assessment based on the criteria of Schedule 7 of the Planning and Development Regulations, 2001 as amended, I note that an electrical substation and/or underground cabling is not a class of development contained in Parts 1 or 2 of Schedule 5 of the Regulations which sets out the prescribed classes of development and thresholds that trigger a mandatory EIAR.

8.3. As no element of the proposed development falls into a class of development contained in Schedule 5, Parts 1 or 2, I am satisfied that the proposed development does not therefore constitute sub-threshold development and neither a mandatory EIA, nor screening for EIA, is required.

9.0 Oral Hearing

The Board directed on 11th July 2022 that an Oral Hearing in respect of the application is not required and that the case can be dealt with adequately through written procedure.

10.0 Assessment

10.1. Introduction

10.1.1. Having examined the application details and all other documentation on file, including all of the submissions received in relation to the application, and inspected the site, and having regard to relevant local/regional/national policies and guidance, I consider that the main issues in the planning assessment are as follows:

- Principle of development and planning policy
- Landscape and visual impact
- Traffic and road safety
- Flood risk
- Residential amenity
- Archaeology and Cultural Heritage
- Ecology
- Health
- Water services
- Appropriate Assessment (see Section 11.0)

The following assessment is dealt with under these headings.

10.2. Principle of Development and Planning Policy

10.2.1. The third-party submissions contend that the site should remain in agricultural use and raise concern that development will set a precedence for other energy companies with further phases from this development company.

- 10.2.2. As outlined in section 7 above, key strategic policies and objectives set out in national, regional and local development plans support and require investment in Ireland's grid as a key driver of a robust and sustainable economy for the country.
- 10.2.3. The proposed development is stated as being required to serve a solar farm development in the townlands of Gareenleen, Bendinstown, Tinnaclash and Ardbearn, Co. Carlow, permitted under An Bord Pleanála Ref. 307891. It is further stated that the substation could be used for other future renewable generators in the area.
- 10.2.4. The subject application is for a 110kV electricity substation, with 33kV customer compound, and associated grid connection comprising 110kV cabling, of c.4km, to the Kellis 220kV Substation. The 110kV compound and grid connection which will be in the ownership of ESB Networks and the IPP compound will be in the ownership of the customer.
- 10.2.5. Carlow County Council in its report considers that the proposal is generally acceptable having regard to national, regional and local renewable energy policies and objectives, in particular the Climate Action Plan 2021 which seeks to achieve a 51% reduction in overall greenhouse gas emissions by 2030. The Council references relevant policies and objectives supporting the development from the now superseded Carlow Development Plan 2015-2021 and Draft Carlow Development Plan 2022-2028.
- 10.2.6. I am satisfied that the proposal complies with the policies and objectives as set out in Section 7 above and as detailed at a national level and in the Regional Spatial and Economic Strategy for the region and the current Carlow Development Plan 2022-2028. At a regional level, RPOs 96, 100, 219 and 222 support the upgrading and provision of new energy infrastructure to integrate renewable energy sources and meet future energy needs. At a local level, the proposal accords, inter alia, with Development Plan policies EI P1, RE P1 and IF P1 which support the development of energy infrastructure, including the integration of transmission network requirements facilitating linkages of renewable energy proposals.
- 10.2.7. It should be noted that the principle of the solar farm is not under determination as part of this planning application. The principle of a solar farm has already been accepted and it follows that the principle of any development required to enable the

permitted development should also be acceptable in principle subject to an assessment under any other relevant criteria, as covered below.

10.2.8. Having regard to the above I am satisfied that the principle of the development of a 110kV electricity substation and associated grid connection comprising 110kV cabling is acceptable in principle.

10.3. **Landscape and Visual Impact**

10.3.1. Third party submissions raise concern that the proposed development would be unsightly, out of character and intrusive on the landscape.

10.3.2. The application is accompanied by a Landscape and Visual Impact Assessment (LVIA) carried out by Macroworks which assessed the impact of the proposal within a 5km radius, with a focus on receptors within a 2km radius. As set out in Section 3.0 above, the proposed substation development consists of the development of an electrical substation control building with dimensions of 18m x 25m x 8.55m in height, IPP building with dimensions of 21m x 10m x 6.2m in height, 4 No. lightning protection monopoles, up to 18m high and associated development within a fenced compound of 68.8m x 125.2m.

10.3.3. The site is located in an area designated as 'central lowlands' in the Landscape Character Assessment of the Carlow Development Plan 2022-2028. These areas are deemed to be "moderately sensitive to development" "with a capacity to absorb most types of development subject to the implementation of appropriate mitigation measures". The relevant policy objective is as follows: new developments to maintain integrity of landscape character area through careful location, siting and design.

10.3.4. The Local Authority Energy Strategy (LARES) for County Carlow is included as appendix VI of the Development Plan and I note the location of the proposed substation primarily located within an area designated as 'Available Area with Low Risk' in relation to solar farm development (Figure 6.6 refers), described as areas of "natural constraint with low sensitivity or further distance from sensitive receptor". The proposed cabling appears to pass through an area designated 'available areas with high risk' which would coincide with the path of the River Burren.

- 10.3.5. I note that there are no scenic views or routes or any protected structures within the vicinity of the proposed substation. The Burren River is located c.600m to the east of the proposed substation and the cabling is proposed to pass beneath the river at Ballynunnery Bridge and at the Garreenleen Stream on the L-7112. I note and agree with the LVIA that there is a modest rural population situated along the local and regional roads within the study area.
- 10.3.6. Having inspected the application site and surrounding area, I agree with the Development Plan designation of the landscape character as being of low sensitivity. The site, located within a relatively flat landscape, is sloping and sits below the level of the adjoining public road. The surrounding lands are comprised of a series of medium to large size fields defined by boundaries of dense hedgerows and trees. Views to and from the substation site are generally limited because of topography, vegetation and the site's separation distances from the nearest public roads and residential dwellings. The proposed cable route will be underground along the edge of existing roads and will have no visual impact once reinstated. There would be intermittent views of the proposed substation from the adjoining public road, where breaks in the existing hedgerow permit. I note the proposed landscaping plan (prepared by Macroworks) proposes a series of low berms and augmentation of the site boundaries
- 10.3.7. With regard to landscape impacts, I note that while the permitted solar farm development on the surrounding lands is extensive in scale, the proposed substation development has a site area of c.0.86 ha (within fenced compound). Having regard to the relatively robust character of the application site and surrounding lands, upon which the Development Plan considers there is capacity to effectively absorb most types of development, the high degree of enclosure provided by the landscape contours, established roadside hedgerows and permitted additional landscaping works for the Garreenleen Solar Farm, and the separation distances from public roads and residential dwellings, I do not consider that the proposed development will have a significant adverse effect on landscape or rural character.
- 10.3.8. With regard to visual impacts, the LVIA assesses the impact of the overall development on 6 viewpoint locations which I consider to be representative of the various receptor types within the study area. Photomontages have been provided

from each of these viewpoints and include the cumulative impact with the permitted Garreenleen Solar Farm.

10.3.9. As noted elsewhere in this report, archaeological monuments (graveyard RMP CW013-023003 and font RMP CW013-023002) are located c.200m west of the proposed substation site. In my opinion, the location of these monuments is imposing on the immediate locality, given their location on a sloping hill which falls to the Garreenleen Stream that forms the boundary of the proposed substation site. The impact of the proposed development on the archaeological monuments were not assessed in the LVIA, however I have considered this matter in section 10.7 of this report.

10.3.10. The Submission by Carlow County Council states that it is of the view that the proposed development can be visually absorbed with the rural landscape, that there will be minimal viewpoints where the proposed development will be seen.

10.3.11. Having inspected the application site and surrounding area and having reviewed the viewpoint photographs and photomontages, I consider that the potential for the proposed development to result in any adverse visual impact on sensitive receptors is extremely limited, due to the relatively limited physical scale of the proposed development, the site topography, the extensive network of hedgerows and tree planting and the separation distances between the proposed development and the closest public roads and residential dwellings.

10.3.12. I am satisfied that the proposed substation development will not be visible from the majority of viewpoints, and that where elements of the development will be visible, they will be at a significant distance with several layers of hedgerows between the receptor and the application site, serving to lessen the visibility of the proposed development and absorb it without significantly impacting on visual amenities. In conclusion, I do not consider that the proposed development would result in any significant adverse impact on the landscape or visual amenities of the area.

10.4. Traffic and Road Safety

10.4.1. Third parties raise concern of traffic safety having regard to new entrances, volume of traffic on narrow and quiet roads, digging up of resurfaced roads, while the TII

request that haul roads be checked by the developer to confirm their capacity to accommodate any abnormal load.

- 10.4.2. As set out in Section 3.0 above, the proposed development includes temporary construction access (from L-7111) and permanent operational access (from L-7112, via an existing agri-entrance) including 4m access track within the site. The proposed cable connection, of c.4km, will follow the path of the L-7112, L-3046 and L-3053 and L-3053 public roads to the boundary of the Kellis substation.
- 10.4.3. The application is accompanied by a comprehensive Site Access Report prepared by Civil and Structural Engineering Advisors Ltd. I note the Transportation Department of Carlow County Council require the re-instatement of public roads in accordance with the requirements specified in the Guidelines for Managing Openings in Public Roads; that structural surveys of the river bridge is required prior to and post works, and any repairs from resulting damage to be borne by the applicant.
- 10.4.4. The construction of the substation is planned at the same time at Garreenleen Solar Farm (ABP Ref. 307891), expected to take c.46 weeks, with a peak daily average of 16 return trips associated with the delivery and installation of the panels over a 6-week period, reducing to 5 or 6 return trips for the remainder of the construction programme.
- 10.4.5. The delivery route to site is via the N80 /L-7111 junction at Kilknock, the L-7111 local road where temporary access is proposed and the L-7112 where permanent entrance is proposed. The swept path analysis of the proposed delivery route showed no works are required to the local road network to facilitate the passage of a 40ft articulated lorry to and from the site. The applicant has indicated that 90m sightlines are achievable at the proposed site entrances and I note that Carlow County Council has not raised any objection or concerns to the proposed site entrances.
- 10.4.6. I note the L-7111 and L-7112 are narrow and the application includes traffic safety mitigation measures in relation to these roads in the Site Access Report submitted with the application. These measures include a temporary stop/go system, temporary road signage, a booking system for construction deliveries and a pavement condition survey. The applicant states that a contribution can be made to

the planning authority in relation to the provision of passing bays on the local road network and I include a condition providing for this measure in the draft order below. While the submission by Carlow County Council does not call for such a contribution, I note the decision of the Board of ABP ref. 307891 for the associated Garreenleen Solar Farm which considered that a similar condition was necessary.

10.4.7. Having reviewed the application documentation and inspected the site and given the nature and duration of the proposed works I am satisfied that the proposed development will not give rise to obstruction of road users or endanger public safety by reason of traffic hazard.

10.5. Flood Risk

10.5.1. Third party observations consider there is a risk of flooding and consequently a lack of available house insurance and depreciation in the value of their homes. Reference is also made to recent flooding of the River Burren at the bridge and along the L-7111.

10.5.2. According to the OPW website, Floodmaps.ie, I note that the route of the proposed grid connection falls within an indicative fluvial flood zone (1% AEP and 0.1% AEP) associated with the Burren River, on the L-7111. The Flood Risk Assessment for the recently adopted Carlow Development Plan 2022-2028 reflects the indicative fluvial food zone as being in Flood Zone A and B. I note that there are no historical or recurring flooding events within the boundary of the site.

10.5.3. The application is accompanied by a Site Specific Flood Risk Assessment (SSFRA), which includes a Justification Test, as outlined in Box 5.1 of the Flood Risk Management Guidelines, prepared by IE Consulting. The SSFRA notes that the site is susceptible to a fluvial event in the Burren River and a secondary flood risk can be attributed to pluvial flooding due to overland flow at the Ardbearn Stream, located along the grid connection route (on the L-3046). The SSFRA notes that the cables to be constructed across the watercourses (existing culvert and bridge crossings) shall be horizontal directional drilling (HDD) above or below the bridges/culverts within the road corridor and will not have any impact on the channel capacity at these locations. I note the Construction Methodology Report that accompanies the application which states that there is insufficient depth within the existing bridge

structures over the River Burren and Garreenleen Stream to cross and the bridges will be crossed utilising the HDD Method. Crossing of the existing culverts will be as per undercrossing or overcrossing methods, depending on the depth of the culvert or using open trenching, subject to detailed surveying.

- 10.5.4. I note that the proposed substation, associated temporary compound and access points will not be located in an area of flood risk. I note too that the proposed grid connection cabling shall be laid underground and shall not be impacted by flooding or any blockage that may arise at the watercourse crossing points and I note that no flood risk measures are necessary.
- 10.5.5. Having regard to the justification test undertaken and section 7.5 above which sets out the development plan policy for the proposed form of development, I am satisfied that the proposed development, and that of the underground cabling, is justified given its compliance with the criteria of the test and the fact that the construction methodology, of undergrounding the cables, is not expected to result in a displacement of potential floodwater volumes or create flood risk.
- 10.5.6. I note too the submission from Carlow County Council which states that the Transportation Department is not aware of any located flooding events associated with the proposed site and local road network.
- 10.5.7. I am satisfied that sufficient detail has been provided to support the conclusion that the proposed development would not be subject to flooding nor will give rise to the risk of flooding elsewhere.

10.6. Residential Amenity

- 10.6.1. Third party observations consider the proposed development would hugely impact residential amenity relating to light, security, visual impact, noise, health and well-being, including that of pets. Concern is also raised regarding disruption on account of laying cables and depreciation of value of property.
- 10.6.2. The application site is located within a large agricultural landholding, and the proposed substation would have separation distances in excess of c.310m to both the nearest public road and the nearest residential dwellings that are not within the landholding of the related solar farm. I note that the location of the proposed

construction compound adjoins the public road (L-7112) and is within c.100m of several adjoining residential properties.

- 10.6.3. I note that a Construction Methodology report accompanies the application wherein it states that the construction programme is estimated to be a total of 46 weeks. It states that a detailed Construction Environment Management Plan (CEMP) and a Traffic Management Plan shall be submitted to, and agreed in writing with, the planning authority following consultation with relevant statutory agencies. I note the CEMP will include details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels
- 10.6.4. Construction traffic access for the proposed development will be via a new temporary construction entrance off the access (from L-7111). I note too that the construction compound for the permitted solar farm is proposed to be located c.500m further south along the L-7111. I note mitigation measures (such as stop/go system, road signage, passing bays and booking system) outlined in section 9.0 of the Site Access Report.
- 10.6.5. The laying of cables along the public road will cause short-term limited impact however I note the Outline Construction Methodology states some work areas will require a temporary road closure where it is not possible to safely implement a Stop/Go system. Where temporary road closures are necessary, a suitable diversion will be implemented using appropriate signage, following consultation and agreement with Carlow County Council. A detailed Traffic Management Plan will be prepared and agreed with Carlow County Council prior to the commencement of construction.
- 10.6.6. Having regard to the separation distances and the limited duration of the construction period, I do not consider that any significant impacts on residential amenity are likely to occur during the construction phase of the proposed substation. Notwithstanding this, given the inter-relationship between the proposed development and the permitted solar farm, I recommend, should the Board be minded to grant permission, that a condition be attached requiring the submission of a Construction Environmental Management Plan for the agreement of the Planning Authority, which address inter-alia noise and dust measures.

10.6.7. Similarly, with regard to the operational phase, noting the separation distances involved, the nature and limited scale of the proposed substation development and its lack of visibility in the wider area, I do not consider that the proposed development is likely to result in any significant adverse impacts on residential amenity during its operational phase.

10.7. Archaeology and Cultural Heritage

10.7.1. The site is located proximate to the following archaeological sites:

- Ring-ditch (RMP CW013-120): within zone of influence, located to the east at Kellistown Cross Roads
- Enclosure (RMP CW013-024): within zone of influence, located to the north east of L-7112 road.
- Barrow - mound barrow (CW013-019) c.50m from site, to the south east of the L3046 road.
- Church (RMP CW013-020001-) and graveyard (RMP CW013-020002-) c.88m from site, north of L-7112 road.

10.7.2. The following additional archaeological sites are relevant:

(a) having regard to the Observation from the Department of Housing, Local Government and Heritage:

- Ballynunnery Castle (RMP CW013-022) c.315m from site, south of junction of L3046 and L-7112; and,

(b) having regard to the proposed siting of the substation relative to:

- Font (CW013-023002) and graveyard (CW013-023003) c. 185 west of substation site; and.

10.7.3. An Archaeological Assessment, prepared by John Cronin & Associates, accompanies the application and includes details of a field survey. The assessment identifies 5 archaeological sites within the study area and states that none of these sites will be directly impacted, however the proposed grid route will encroach on the Zones of Notification for an enclosure (RMP CW013-024) and a ring ditch (RMP CW013-120). The Assessment further notes that there are no NIAH structures or

protected structures within the 100m wide corridor centred on the proposed route, which I can confirm.

- 10.7.4. I note the Assessment states that the monuments will not be impacted by the developments; that the impacts of the proposed development on protected archaeological and heritage resources are assessed as being slight – partly because public roads will carry the cables and the absence of direct impact on protected sites. The Assessment recommends archaeological monitoring of any ground disturbance and archaeological testing of the substation site.
- 10.7.5. The observation from the Department of Housing, Local Government and Heritage (Development Applications Unit) notes that the Archaeological Impact Assessment Report (AIAR) does not include an assessment of the potential impact on underwater archaeological heritage of 2 no. proposed horizontal directional drill crossings of the River Burren and Garreenleen Stream. Both crossings are located within the environs of Ballynunnery Castle (RMP CW013-022) and Kilmurry church (RMP CW013-020001) and graveyard (RMP CW013-020002) and the observation notes these monuments represent the physical remains of a medieval manorial centre at this location, noting that historic maps show mills and associated infrastructure in the area. The Department also notes that whilst the existing bridge appears to be 18th-19th century it considers it likely there was an earlier bridge or fording point at this location to serve the manorial centres, traces of which may remain today.
- 10.7.6. The Department request that an Underwater Archaeological Impact Assessment (UAIA) report is compiled and submitted prior to a decision being made on the application. The scope of the UAIA includes a requirement for an architectural assessment of Ballynunnery Bridge, site investigation (direct and indirect impacts), a licensed dive/wade assessment(s) of the River Burren, Garreenleen Stream and any other waterway crossings) to be completed well in advance of construction to develop an informed archaeological strategy in agreement with the Department. A project specific Archaeological Impact Statement is also to be submitted to the Department. All recommendations will require the advance agreement of the Department. The Department stipulate an archaeological monitoring condition to be included with a grant of permission.

- 10.7.7. The applicant, in his response to the Observations, request that works related to the Underwater Archaeological Impact Assessment be undertaken at the same time as the archaeological appraisal required by condition no. 6 for the adjoining solar farm, permitted under ABP ref. 307891 and in advance of any works being undertaken on site.
- 10.7.8. Having regard to the application documentation, including the Archaeological Assessment, the Observation of the Department and the applicant's response to the Observations, I consider that suitable conditions can be attached to any grant of permission to adequately address the concerns raised. To this effect, should the Board be minded to grant permission, a condition requiring an Underwater Archaeological Impact Assessment, per the Department's Observation is considered necessary.
- 10.7.9. The location of the proposed substation will in my opinion have some visual impact on the archaeological site of the graveyard and font located to the west, owing largely to their location on a slope which continues to fall towards the Gareenleen Stream that bounds the site of the proposed substation to the west. Although not assessed in the LVIA or the archaeological assessment I consider that the visual impact of the proposed substation on the archaeological site will be moderate and long-term. I note, however, the Landscape Mitigation Plan submitted with the application and the proposal to create a berm up to 1.2m high and to plant a low-canopy woodland mix along the west and northern boundaries of the proposed substation. I am satisfied therefore, subject to landscape mitigation as proposed, that the proposed substation will not an undue detrimental impact on the setting of the archaeological sites of the graveyard (RMP CW013-023003) and font (RMP CW013-023002).
- 10.7.10. Subject to appropriate conditions, I consider that any issues pertaining to archaeology can be adequately dealt with should the Board be minded to grant permission.

10.8. **Ecology**

- 10.8.1. The proposed development site is not located within or near to any designated wildlife conservation site. The nearest designated site, Slaney River Valley SAC is

located approximately 4.6 km from the site. The next nearest designated site, the River Barrow and River Nore SAC is located c.8.5km from the site. The connection route from the Bendinstown substation to Kellis substation has 2 no. river crossings of the River Burren_040 and a tributary of the River Burren (the Garreenleen Stream). The River Burren_040 is located approximately 400m west of the proposed Bendinstown substation, while the Garreenleen Stream adjoins the proposed substation site to the west. An embankment runs along the length of the Garreenleen Stream adjoining the western site boundary.

- 10.8.2. An Ecological Impact Assessment (EclA) prepared by Ecology Ireland accompanies the application and includes the findings of two field surveys undertaken in December 2021 and January 2022. I note the use of digital trail cameras and a passive bat detector study to inform the EclA. A Natura Impact Statement (NIS) is submitted with the application. Impact on Natura 2000 sites is considered in section 10.9 of this Inspector's Report.
- 10.8.3. Third party observations raise concerns over the timing of surveys used to inform the ecological report, and impact on the River Burren and aquatic life.
- 10.8.4. With respect to habitat, flora and fauna surveys, the EclA notes that the surveys were undertaken outside of the optimum period for such surveys, however, given the modified nature of the habitats within the study site it was considered feasible to accurately survey the habitats on site. The EclA states data collected from the permitted adjoining Garreenleen Solar Farm was also considered as part of the current assessment however I note that included survey data collected between February and March 2020 and was (also) sub-optimal for surveying. Nonetheless I agree that the agricultural fields are considered to be low suitability as they are identified as arable or improved agricultural grassland which are of low ecological value with limited potential to support wildlife. I acknowledge the route of the proposed cable laying follows for the most part the existing road infrastructure, with underground directional drilling under the watercourses of the Gareenleen Stream and River Burren. I am satisfied therefore that the surveys undertaken are satisfactory for the purposes of informing the ecological assessment and by extension, this planning assessment.

- 10.8.5. A total of 18 bird species were recorded during surveys, including one red-listed species (Yellowhammer) and two amber-listed species (Starling and House Sparrow). All other bird species that were recorded are not currently considered to be of conservation concern in Ireland. The EclA notes that the study site contains limited foraging, commuting, breeding and resting habitats for any of the listed bird species and is of low local importance for the local avian community.
- 10.8.6. Regarding terrestrial mammals, the EclA notes that there were no direct sightings or signs of any mammal species made during the baseline site surveys undertaken for the study site. The mammal fauna recorded for the study site are terrestrial species listed of 'Least Concern' in the Irish Red Data Book of Mammals. The study site contains relatively limited foraging, commuting, breeding and resting habitats for the mammal species recorded in general.
- 10.8.7. With respect to bats, the EclA notes that vegetation along the field boundaries was visually assessed as having low potential for roosting bats and no potential roost features were identified, though such existing linear/edge features will support commuting/feeding bats. The study site is therefore considered to be of low local value for bats overall. The bat detectors recorded relatively limited activity though four common and widespread species were confirmed present: Common Pipistrelle, *Pipistrellus*, Soprano Pipistrelle, *Pipistrellus pygmaeus* and Daubenton's Bat, *Myotis daubentoniid* and Leisler's Bat, *Nyctalus leisleri*.
- 10.8.8. In respect of watercourse crossings for cable-laying, there will be no in-stream works at the watercourse crossings and I note the IFI Submission which welcomes the proposal to use directional drilling for river crossings and stresses the importance of managing suspended solids. I note the proposed implementation of standard environmental controls, as set out in section 5.1 of the EclA and the Outline Construction Methodology and am satisfied that these will ensure there is no potential for impact on water quality in watercourses and associated aquatic habitats and flora species in the wider area as a result of the proposed grid connection route. I am also satisfied that there is no potential for negative impacts on habitat, flora and fauna arising from the operational phase of the proposed development.

10.8.9. Having reviewed the wider pollution control measures to be applied across the site (as set out in the EclA and the Outline Construction Methodology) I am satisfied that these are sufficient to mitigate impacts on wider quality and aquatic life.

10.8.10. In conclusion, I consider the proposed substation site is of low local importance overall, in relation to biodiversity given its use as long-term arable/agriculture purpose. The cable route crosses a number of watercourses which are of greater ecological sensitivity and linked hydrologically to the River Barrow and River Nore SAC. Potential impact will be largely confined to the construction phase and will be short-term. I am satisfied that subject to mitigation measures as outlined in the EclA and the Outline Construction Methodology that the proposed development is acceptable from an ecological perspective.

10.9. **Health and Safety**

10.9.1. The observations made to the Board make the point that the proposed development may give rise to radiation/EMFs which would impact human health. Concern is also raised about fire risk. No evidence is submitted in support of the observers claims.

10.9.2. I note that the nearest dwelling to the proposed substation is c.200m. Having regard to this separation distance and in the absence of scientific information as to the veracity of health claims /ill effects of the proposed development, I am satisfied that the proposed development is acceptable from a health perspective.

10.9.3. On the matter of fire risk, the site is largely agricultural land and is situated remote from any industrial or urban centre or other potentially hazardous use. There is an access point to the application site from the public road and additional road frontage network which, in the event of fire, may be used by firefighting equipment. Any technical matters relating to fire is more appropriately considered under a separate legal code.

10.10. **Water Services**

10.10.1. Carlow County Council note in its submission that there is a watermain in the road adjacent to the proposed development and would advise the applicant to contact Irish Water in this regard, I have therefore provided for this request in the draft order below.

10.10.2. Wastewater from the operation of the substation will pass to a foul holding tank for removal off site by licensed contractor. There will be limited personnel on site during the operation phase of the substation and I note that no concerns have been raised by Carlow County Council, having regard to this, I consider the proposal to remove wastewater off site by licenced contractor is acceptable.

11.0 **Appropriate Assessment**

11.1. **Introduction**

11.1.1. The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177U and 177V of the Planning and Development Act 2000, as amended), are considered fully in this section. The areas addressed in this section are as follows:

- Compliance with Article 6(3) of the EU Habitats Directive
- Screening the need for appropriate assessment
- The Natura Impact Statement and associated documents
- Appropriate assessment of implications of the proposed development on the integrity each European site

11.2. **Compliance with Article 6(3) of the EU Habitats Directive**

11.2.1. 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 before consent can be given.

11.3. Brief Description of Development

- 11.3.1. The proposed development is described in Section 3 above, in 2.1 of the NIS and in other accompanying documents such as the Planning and Environmental Report.
- 11.3.2. In summary, the development comprises a 110kV substation with 110kV Eirgrid compound and 33kV customer compound; two control buildings, lighting and fencing; grid connection between proposed substation and the existing Kellis 220Kv substation comprising 110kV underground electricity cables of c.4.099km including river, watermain and culvert crossings, including horizontal directional drill crossings of the River Burren and Garreenleen Stream; temporary construction access (from L-7111) and permanent operational access (from L-7112, temporary construction compound; water drainage, water services, site restoration and landscaping.
- 11.3.3. The applicant has submitted a screening report for Appropriate Assessment/Natura Impact Statement (NIS) as part of the planning application. The screening report is included as part of the NIS, prepared by Ecology Ireland Ltd, dated March 2022.
- 11.3.4. The applicant's Stage 1 AA Screening Report was prepared in line with current best practice guidance and provides a description of the proposed development and identifies European Sites within a possible zone of influence of the development. The screening report can be read in conjunction with the Ecological Impact Assessment (EclA) and the Outline Construction Methodology report which accompany the application.
- 11.3.5. The applicants AA Screening Report concluded that significant effects during the project construction phase cannot be discounted without the implementation of best practice construction design measures and the implementation of a Construction and Environmental Management Plan (CEMP). It could not therefore be concluded that the proposed project, individually or in combination with other plans or projects, will not have a significant effect on a Natura 2000 site, without the consideration and analysis of further information and a Stage 2 NIS (AA) was considered necessary.
- 11.3.6. Having reviewed the documents and submissions 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.

11.4. Screening for Appropriate Assessment - Test of likely significant effects

- 11.4.1. The proposed development is not directly connected to or necessary to the management of any European site and therefore it needs to be determined if the development is likely to have significant effects on a European site(s).
- 11.4.2. The proposed development is examined in relation to any possible interaction with European sites designated Special Conservation Areas (SAC) and Special Protection Areas (SPA) to assess whether it may give rise to significant effects on any European Site.
- 11.4.3. The project description set out in the NIS includes measures incorporated into the design, such as buffers from watercourses and hedgerows and use of silt traps. An Outline Construction Methodology details similar measures. An Ecological Impact Assessment accompanies the application. The overall development site is described in sections 2.1.1 and 2.1.3 of the NIS. The site is described as Local Importance (lower to higher level) as it contains some semi-natural habitat (e.g., hedgerows, treelines, depositing lowland river) and regularly occurring species (e.g., Otter, Badger and Irish Hare) which are protected under the Wildlife Acts (1976 - 2012). No Annex I habitats listed under the EU Habitats Directive are present within the study site. The dominant habitats present are primarily of low ecological value. The proposed development site for the substation is dominated by intensive agricultural land use. No rare, notable or invasive floral species were identified during the site surveys.
- 11.4.4. Taking account of the characteristics of the proposed development in terms of its location and the scale of works, the following issues are considered for examination in terms of implications for likely significant effects on European sites:
- Construction related – uncontrolled surface water/silt runoff and construction related pollution;
 - Habitat disturbance /species disturbance (construction and operational).

11.5. Submissions and Observations

- 11.5.1. The NIS does not indicate that consultation with prescribed bodies was undertaken.

- 11.5.2. Of the 8 no. public submissions received, concern was raised that the ecological surveys were carried outside the optimum period; that there was no reference to migrating birds or hibernating animals or insects. A query was raised as to how red and amber listed birds were going to be protected. Concern was raised for disturbance of river Burren and the Garrenleen River on the Barrow Nore and Slaney SAC. It was considered that the development and drilling of the river indirectly affects the habitats and marine wildlife of the SAC.
- 11.5.3. With respect to the timing of surveys, this issue is addressed at Section 10.8 above. Other issues raised in relation to the NIS will be addressed during the Appropriate Assessment process.
- 11.5.4. Submissions from prescribed bodies were received from the Department of Department of Housing, Local Government and Heritage, IFI, TII, GSI and Carlow County Council. The IFI note that the Burren River is one of the more important salmon spawning tributaries of the Barrow SAC, and list general concerns of construction impacts on aquatic life. The IFI lists a number of conditions to protect watercourses and limit pollution and deleterious matter from entering watercourses. The Carlow County Council submission refers to the report from the Environment Section which states it is satisfied with the contents of the NIS and that the proposed development will not adversely impact on the River Barrow and River Nore SAC.

11.6. **European Sites**

- 11.6.1. The development site is not located in or immediately adjacent to a European site. A summary of European Sites that occur within the zone of influence identified by the applicant is presented in Table 11.1 below, along with their qualifying interests.
- 11.6.2. While the proposed development that forms the basis of this application is relatively limited in scale and extent and is at a significant remove from the nearest European Sites, I consider that it nevertheless has the possibility, in combination with the associated permitted solar farm development, to result in significant effects on the River Barrow and River Nore SAC, due to the hydrological pathway between the application site and the European Site. Table 11.1 below summarises the potential significant effects in view of the conservation objectives of those sites.

11.6.3. Having regard to the information presented in the NIS, submissions, 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, I concur with the applicant's screening determination that no other European Sites could be affected by the proposed development. No reliance on avoidance measures or any form of mitigation is required in reaching this conclusion.

11.7. Appropriate Assessment Screening Determination

11.7.1. The proposed development was considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. 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. 002162, River Barrow and River Nore SAC, in view of the site's Conservation Objectives, and Appropriate Assessment (and submission of a NIS) is therefore required.

11.7.2. The possibility of significant effects on other European sites has been excluded on the basis of objective information. The following European sites have been screened out for the need for appropriate assessment:

- Slaney River Valley SAC (00781)
- Blackstairs Mountains SAC (00770)

11.7.3. Measures intended to reduce or avoid significant effects have not been considered in the screening process.

Table 11.1: AA 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 assessment)

European Site name [Site Code] Qualifying Interest/Special Conservation Interest	Conservation Objective(s)	Distance (km)	Is there a possibility of significant effects in view of the conservation objectives of the site?		
			Habitat Loss/Deterioration	Water quality/pollution	Disturbance/Displacement
Slaney River Valley SAC (00781) <ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] • <i>Petromyzon marinus</i> (Sea Lamprey) [1095] • <i>Lampetra planeri</i> (Brook Lamprey) [1096] • <i>Lampetra fluviatilis</i> (River Lamprey) [1099] • <i>Alosa fallax fallax</i> (Twaites Shad) [1103] • <i>Salmo salar</i> (Salmon) [1106] 	To maintain or restore the favourable conservation condition of the qualifying interests	4.6km	No Due to distance from habitat features and lack of hydrological connections to the habitat for which this site is designated.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated. The Slaney River Valley SAC is located in a different river catchment to the study site.	No Due to distance and lack of hydrological connections to the habitat for which this site is designated.

<ul style="list-style-type: none"> • Lutra lutra (Otter) [1355] • Phoca vitulina (Harbour Seal) [1365] 					
<p>River Barrow River Nore SAC (002162)</p> <ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Reefs [1170] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] • European dry heaths [4030] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] • <i>Vertigo moulinsiana</i> (<i>Desmoulin's Whorl Snail</i>) [1016] • <i>Margaritifera margaritifera</i> (<i>Freshwater Pearl Mussel</i>) [1029] 	To maintain or restore the favourable conservation condition of the qualifying interests	8.5km	Yes Construction phase elements of the project (in particular potential overland flow of construction stage silt/pollutants to the Burren River	Yes Construction related run-off: contaminants, silt, increased turbidity	Yes Potential disturbance or displacement of salmon, otter and lamprey species due to water quality impacts during construction or disturbance to otter foraging routes along connecting watercourses

<ul style="list-style-type: none"> • Austropotamobius pallipes (White-clawed Crayfish) [1092] • Petromyzon marinus (Sea Lamprey) [1095] • Lampetra planeri (Brook Lamprey) [1096] • Lampetra fluviatilis (River Lamprey) [1099] • Alosa fallax fallax (Twaiite Shad) [1103] • Salmo salar (Salmon) [1106] • Lutra lutra (Otter) [1355] • Trichomanes speciosum (Killarney Fern) [1421] • Margaritifera durrovensis (Nore Pearl Mussel) [1990] 					
<p>Blackstairs Mountains SAC (00770)</p> <ul style="list-style-type: none"> • Northern Atlantic wet heaths with Erica tetralix [4010] • European dry heaths [4030] 	<p>To maintain the favourable conservation condition of the qualifying interests</p>	<p>12.8km</p>	<p>No</p> <p>Due to distance from habitat features.</p>	<p>No</p> <p>Due to distance and lack of hydrological connections to the habitat for which this site is designated.</p>	<p>No</p> <p>Due to distance and lack of hydrological connections to the habitat for which this site is designated.</p>

11.8. The Natura Impact Statement

- 11.8.1. As noted above, the application included a NIS (Ecology Ireland, March 2022) which examines and assesses potential adverse effects of the proposed development on the River Barrow River and Nore SAC (site code 002162).
- 11.8.2. The NIS was informed by best practice guidance for such assessments, desktop and site surveys, including the Ecological Impact Assessment completed for the proposed development, OPW data, NPWS databases, site synopses, Natura 2000 Data Forms and conservation objectives and EPA mapping, National Biodiversity data and Ordnance Survey of Ireland mapping.
- 11.8.3. Section 3 of the NIS contains an assessment of the potential impacts of the proposed development on the identified European Site (i.e., River Barrow and River Nore SAC) and Section 4.2 sets out a series of mitigation measures. Section 3.2.8 considers the potential for in-combination effects with the permitted Garreenleen Solar Farm project and states that there is no likelihood of significant cumulative or in combination effects identified in relation to the proposed Bendinstown Substation project. The NIS concluded that proposed development will not adversely affect the integrity of the Natura 2000 site, and that best practice measures and mitigation measures have been identified to ensure that potential pollutant sources are not released during the proposed development (particularly during the laying of the underground grid cable) to the receiving environment such that there will be no risk of adverse effects on the qualifying interests of the SAC within the project's zone of influence.
- 11.8.4. The NIS is silent on consultations with prescribed bodies, however, no issue specific to AA was raised by prescribed bodies in submissions received.
- 11.8.5. In addition to those qualifying interests of the River Barrow and River Nore SAC that have the potential to be impacted as detailed in the NIS, I have, in the absence of scientific data otherwise not provided in the NIS, considered the following qualifying interests to also have the potential to be impacted:
- Petrifying springs with tufa formation (*Cratoneurion*)
 - Freshwater Pearl Mussel, *Margaritifera*

11.8.6. With respect to Petrifying springs with tufa formation (*Cratoneurion*) I note the Conservation Objectives states that the “full distribution of this habitat in this site is currently unknown.” With respect to the Freshwater Pearl Mussel, *Margaritifera* I note the status of the is currently under review, however, I note the NPWS website indicates that the Barrow catchment is identified as previously recording of this species. In light of this, I consider that there is (also) potential for these qualifying species to be impacted.

11.8.7. Notwithstanding the foregoing, having reviewed the NIS, all supporting documentation and submissions, I am satisfied that the information allows for a complete assessment of any adverse effects of the proposed development on the conservation objectives of the abovementioned European sites alone, or in combination with other plans and projects.

11.9. **Appropriate Assessment of implications of the proposed development**

11.9.1. The following is a summary of the objective scientific assessment of the implications of the project on the qualifying interest features of the European sites using the best scientific knowledge in the field. All aspects of the project which could result in significant effects are assessed and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed.

11.9.2. The following Guidance has been adhered to in my assessment:

- 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, Dublin
- EC (2021) Assessment of plans and projects significantly affecting Natura 2000 sites. Revised 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

11.9.3. The following site is subject to Appropriate Assessment:

- River Barrow and River Nore SAC (site code 002162).

11.9.4. A description of this site and its Conservation Objectives and Qualifying Interests are set out in the NIS and summarised in Table 11.2 of this report as part of my assessment. I have also examined the Natura 2000 data forms and other supporting documents for these sites available through the NPWS website.

11.9.5. In my opinion, having reviewed the development proposals, the main aspect of the proposed development that could affect the conservation objectives of the European site arises from:

- Impacts to water quality /surface water pollution/ siltation during the construction phase and;
- potential disturbance and or displacement of species listed as qualifying interests due to potential water quality impacts during construction.

11.9.6. No Aspects of the operational phase of development have been identified that could affect the conservation objectives.

11.9.7. Table 11.2 summarise the Appropriate Assessment and site integrity test. The conservation objectives for the European Site, which I note are generic, have been examined and assessed with regard to the identified potential significant effects and all aspects of the project (alone and in combination with other plans and projects). Mitigation measures proposed to avoid and reduce impacts to a non-significant level have been assessed, and clear, precise and definitive conclusions reached in terms of adverse effects on the integrity of European sites.

11.10. Appropriate Assessment Conclusion

11.10.1. The proposed development has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000, as amended.

11.10.2. Having carried out screening for Appropriate Assessment of the project, it was concluded that the proposed development in combination with the associated permitted solar farm development may have a significant effect on the River Barrow and Nore SAC (Site Code 002162). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the European Site in light of its conservation objectives.

- 11.10.3. 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 the River Barrow and Nore SAC (Site Code 002162). or any other European site, in view of the site's Conservation Objectives.
- 11.10.4. This conclusion is based on a complete assessment of all aspects of the proposed project and there is no reasonable doubt as to the absence of adverse effects.

Table 11.2 Summary of Appropriate Assessment of implications of the proposed development on the integrity of European Sites alone and in combination with other plans and projects in view of the sites' Conservation Objectives.

River Barrow River Nore SAC (002162) - Summary of Key issues that could give rise to adverse effects:					
<ul style="list-style-type: none"> • Water quality impacts due to pollutants or soil/silt run-off during construction phase • Disturbance of QI species 					
Appropriate Assessment					
Qualifying Interest feature	Conservation Objectives Targets and attributes	Potential adverse effects	Mitigation measures	In-combination effects	Can adverse effects on integrity be excluded?
Estuaries [1130]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	No - Located > 40km downstream, considered to be outside the zone of influence of this project	Not applicable / none necessary	None	Yes
Mudflats and sandflats not covered by seawater at low tide [1140]					
Reefs [1170]					
Salicornia and other annuals colonising mud and sand [1310]					

Atlantic salt meadows (Glaucopuccinellietalia maritimae) [1330]	Only generic Conservation Objectives are defined for this SAC, with no published targets or attributes.				
Mediterranean salt meadows (Juncetalia maritimi) [1410]					
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]		No - the typical species of the tufaceous sub-type is located in the Kings tributary of the Nore.	Not applicable / none necessary	None	Yes
Petrifying springs with tufa formation (Cratoneurion) [7220]		Yes; distribution of habitat is unknown; rely on permanent irrigation, usually from upwelling groundwater sources or seepage sources.	Best practice pollution prevention methods are set out in the Construction Methodology Statement and section 4.2 of the NIS, and include:	No likely significant in-combination effects	Yes No doubt as to the effectiveness or implementation

		Possible water quality impact arising from accidental surface water pollution.	-Provision of 50m exclusion zones and barriers (silt fences) between any excavated material and any surface water features to prevent sediment washing into the receiving water environment;		of mitigation measures proposed to prevent indirect effects.
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]		Yes -the Barrow catchment is identified as previously recording of this species. Current status is unknown / under review. Possible water quality impact arising from accidental surface water pollution or siltation arising from construction.	-Concrete or concrete contaminated water run-off will not be allowed to enter any watercourses. Any pouring of concrete (delivered to site ready mixed) will only be carried out in dry weather;	No likely significant in-combination effects	Yes, No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Austropotamobius pallipes (White-clawed Crayfish) [1092]		Yes – occurs in the River Barrow downstream of the project site. Possible water quality impact arising from accidental surface water	-Reception and launch pits for the directional drilling process shall be excavated a minimum of	No likely significant in-combination effects	Yes, No doubt as to the effectiveness or implementation of mitigation measures

		pollution or siltation arising from construction.	20m from the stream banks; -Wash-down water from		proposed to prevent indirect effects.
Petromyzon marinus (Sea Lamprey) [1095]		Yes – occurs downstream of project site. Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase.	exposed concrete surfaces will be trapped to allow sediment to settle out and reach neutral pH before clarified water is released to the drain system or allowed to percolate into the ground; -Ecological Clerk of Works to be appointed to monitor	No likely significant in-combination effects	Yes; No doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Lampetra planeri (Brook Lamprey) [1096]		Yes – lamprey species recorded downstream at Rathoe Bridge (River Barrow Catchment Survey, 2015, IFI).	compliance with mitigation measures and conditions.	No likely significant in-combination effects	Yes; No doubt as to the effectiveness or implementation of mitigation measures proposed to
Lampetra fluviatilis (River Lamprey) [1099]		Lamprey are sensitive to indirect effects from pollution of watercourses with chemicals, silt,			

		contaminants etc. during construction phase.			prevent indirect effects.
Salmo salar (Salmon) [1106]		Yes - Widespread distribution throughout SAC. Salmon are sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants etc. during construction phase.		No likely significant in-combination effects	Yes; no doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects.
Lutra lutra (Otter) [1355]		Yes- Widespread distribution throughout SAC. Otters may be sensitive to indirect effects from pollution of watercourses with chemicals, silt, contaminants, noise, etc. during construction phase.	In addition to the mitigation measures referenced above as detailed in the NIS, a pre-works survey will be carried out by a qualified ecologist to identify the presence of any protected fauna on-site	No likely significant in-combination effects	Yes; no doubt as to the effectiveness or implementation of mitigation measures proposed to prevent indirect effects

Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]		No - not subject to potential hydrological Impacts	Not applicable / none necessary	None	Yes
European dry heaths [4030]		No - not subject to potential hydrological Impacts	Not applicable / none necessary	None	Yes
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]		No - Located > 40km downstream, considered to be outside the zone of influence of this project.	Not applicable / none necessary	None	Yes
Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]		No – while periodic flooding is essential to maintain alluvial woodlands along river flood plains in some instances, this habitat is located > 20km downstream and is considered to be outside	Not applicable / none necessary	None	Yes

		the zone of influence of this project			
Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]		No - occurs >40km downstream; outside zone of influence for this project	Not applicable / none necessary	None	Yes
Alosa fallax fallax (Twaite Shad) [1103]		No – occurs >30km downstream; outside of zone of influence	Not applicable / none necessary	None	Yes
Trichomanes speciosum (Killarney Fern) [1421]		No - occurs >40km downstream; outside zone of influence for this project	Not applicable / none necessary	None	Yes
Margaritifera durrovensis (Nore Pearl Mussel) [1990]		No – not downstream of project; in the Nore Catchment.	Not applicable / none necessary	None	Yes
<p>Overall conclusion: Integrity test</p> <p>Following the implementation of mitigation, the construction and operation of this proposed development will not adversely affect the integrity of the River Barrow and Nore SAC in light of the site's Conservation Objectives. No reasonable scientific doubt remains as to the absence of such effects</p>					

12.0 Recommendation

12.1. Having regard to the foregoing I recommend that permission for the proposed development be granted, subject to conditions, for the following reasons and considerations.

13.0 Reasons and Considerations

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

- a) the nature, scale and extent of the proposed development,
- b) the characteristics of the site and of the general vicinity,
- c) the national targets for renewable energy including to achieve a 34% share of renewable energy in energy consumption by 2030,
- d) European, national, regional and county level support for renewable energy development such as:
 - Climate Action Plan, 2021
 - Project Ireland 2040 National Planning Framework,
 - Regional Spatial and Economic Strategy for the Southern Region
 - the Carlow County Development Plan, 2022-2018,
- e) The documentation submitted with the application, including the Natura Impact Statement, the Planning and Environmental Report, accompanying reports including the Construction Methodology Report,
- f) the nature of the landscape and absence of any specific conservation or amenity designation for the site,
- g) the planning history of the immediate area including proximity to the permitted solar farm (ABP. Ref. 307891). This development will serve as the grid connection for this generating asset infrastructure,
- h) the distance to dwellings or other sensitive receptors from the proposed development,

- i) the submissions on file including those from third parties, prescribed bodies and the Planning Authority,
- j) mitigation measures proposed for construction and operation of the site,
- k) the report of the Inspector.

13.2. Appropriate Assessment - Stage 1

13.2.1. The Board considered the Natura Impact Statement and all the other relevant submissions and carried out both an appropriate assessment screening exercise and an appropriate assessment in relation to the potential effects of the proposed development on designated European Sites. The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the only European site in respect of which the proposed development has the potential to have a significant effect is the River Barrow and Nore SAC (Site Code 002162).

13.3. Appropriate Assessment – Stage 2

13.3.1. The Board considered the Natura Impact Statement and associated documentation submitted with the application, the mitigation measures contained therein, the submissions on file, and the Inspector's assessment. The Board completed an appropriate assessment of the implications of the proposed development for the European Site, namely, the River Barrow and Nore SAC (Site Code 002162), 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:

- (i) the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
- (ii) the mitigation measures which are included as part of the current proposal, and
- (iii) the conservation objectives for the European Sites.

13.3.2. 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 Site, having regard to the site's Conservation Objectives.

13.3.3. 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 Site, in view of the site's Conservation Objectives.

13.4. Proper Planning and Sustainable Development

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

14.0 Conditions

1.	<p>The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed 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.</p> <p>Reason: In the interest of clarity.</p>
2.	<p>All of the environmental, construction and ecological mitigation and monitoring measures set out in the Ecological Impact Assessment and the Natura Impact Statement, and other particulars submitted with the application shall be implemented by the developer in conjunction with the</p>

	<p>timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order.</p> <p>Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.</p>
3.	<p>The period during which the development may be carried out shall be 10 years from the date of this Order.</p> <p>Reason: In the interest of clarity and having regard to the sale and nature of the proposed development.</p>
4.	<p>(a) Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works in respect of both the construction and operation phases of the proposed development.</p> <p>(b) The developer shall liaise with Irish Water in respect of connecting to the public water supply.</p> <p>(c) Surface water from the site shall not be permitted to drain onto the adjoining public road or adjoining properties.</p> <p>Reason: In the interest of environmental protection and public health.</p>
5.	<p>The developer shall comply with the following requirements:</p> <p>(a) No additional artificial lighting shall be installed or operated on site unless authorised by a prior grant of planning permission.</p> <p>(b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or roads.</p> <p>(c) Cables within the site shall be located underground.</p> <p>(d) All fencing, gates and exposed metalwork shall be dark green in colour. The roofs of the buildings within the substation compound shall be dark grey or black and the external walls shall be finished in neutral colours such as grey or off-white.</p>

	Reason: In the interest of clarity, of visual and residential amenity.
6.	<p>The landscaping proposals shall be carried out within the first planting season following commencement of construction of the proposed development. All existing hedgerows shall be retained. The landscaping and screening shall be maintained at regular intervals. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously damaged or diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those original required to be planted.</p> <p>Reason: To assist in screening the proposed development from view and to blend it into its surroundings in the interest of visual amenity</p>
7.	<p>The developer shall comply with the transportation requirements of the planning authority for such works and services as appropriate.</p> <p>Reason: In the interest of traffic and pedestrian safety.</p>
8.	<p>Prior to commencement of development, a detailed Construction Environmental Management Plan (CEMP) for the construction phase shall be submitted to and agreed in writing with the planning authority, generally in accordance with the Outline Construction Methodology submitted with the application. The CEMP shall incorporate the following:</p> <p>(a) a detailed plan for the construction phase incorporating, inter alia, construction programme, supervisory measures, noise, dust and surface water management measures including appointment of a site noise liaison officer, construction hours and the management, transport and disposal of construction waste;</p> <p>(b) a comprehensive programme for the implementation of all monitoring commitments made in the application and supporting documentation during the construction period;</p> <p>(c) an emergency response plan; and</p>

	<p>(d) proposals in relation to public information and communication. A record of daily checks that the works are being undertaken in accordance with the Construction Environmental Management Plan shall be kept for inspection by the planning authority</p> <p>Reason: In the interest of environmental protection and orderly development.</p>
9.	<p>The site development and construction works shall be carried out such a manner as to ensure that the adjoining public roads are kept clear of debris, soil and other material and cleaning works shall be carried on the adjoining public roads by the developer and at the developer's expense on a daily basis.</p> <p>Reason: To protect the residential amenities of property in the vicinity.</p>
10.	<p>(a) All road surfaces, culverts, watercourses, verges and public lands shall be protected during construction and, in the case of any damage occurring, shall be reinstated to the satisfaction of the planning authority. Road condition surveys of the site shall be taken to provide a basis for reinstatement works. Details in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.</p> <p>(b) Any cable-laying crossings of watercourses shall subject to an agreed method statement with IFI. No deleterious material shall discharge to any watercourse.</p> <p>(c) Any proposed culverts, crossings, watercourse diversions or amendments to same shall require a Section 50 consent from the OPW and such written consent shall be submitted to the planning authority prior to commencement of development</p> <p>Reason: In order to ensure a satisfactory standard of development.</p>
11	<p>The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000 in respect of the provision of passing bay(s) on</p>

	<p>the L-7111 and/or the L-7112. The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board for determination. The contribution shall be paid prior to the commencement of the development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.</p> <p>Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.</p>
12	<p>(a) Prior to commencement of development/site investigations contract, the developer shall cause an Underwater Archaeological Impact Assessment (UAIA) report to be prepared that addresses the riverine, underwater, archaeological and built (including industrial) heritage of the proposed development.</p> <p>(b) The terms and scope of the UAIA shall be agreed in writing with the Department of Housing, Local Government and Heritage, Development Application Units and shall be in accordance with the report received by An Bord Pleanála from the Department of Housing, Local Government and Heritage, Development Application Units dated 20th May 2022.</p> <p>(c) The archaeologist shall submit a written report to the Department of Housing, Local Government and Heritage describing the results of the UAIA and shall include a comprehensive project-specific Archaeological Impact Statement on all proposed works that may have been identified in the UAIA and/or areas of archaeological potential.</p> <p>Reason: In the interest of clarity and 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.</p>

13	<p>(a) The mitigation measures recommended in the Archaeological Impact Assessment Report (AIAR) 'Proposed Bendinstown 110kV substation and grid connection route, County Carlow Archaeological Assessment' (John Cronin and Associates, March 2022) shall be implemented in full.</p> <p>(b) Prior to commencement of development/site investigations works the archaeological monitoring requirements shall be agreed in writing with the Department of Housing, Local Government and Heritage, Development Application Units.</p> <p>(c) Following the completion of works, a report detailing the outcome of the monitoring shall be forwarded to the Department, as per conditions of archaeological licences.</p> <p>Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.</p>
14	<p>Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site on cessation of the project coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.</p> <p>Reason: To ensure satisfactory reinstatement of the site.</p>
15	<p>The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased</p>

payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to 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.

Alaine Clarke
Planning Inspector

13th September 2022