



An
Bord
Pleanála

Inspector's Report

ABP-313816-22

Development	A new 110kV substation to feed into the existing Aughinish - Kilpaddoge 110kV overhead line
Location	Townlands of Ballinknockane and Ellaha, Co. Limerick
Planning Authority	Limerick City & County Council
Applicant(s)	Solas Éireann Development Limited
Type of Application	Application under the provisions of Section 182A of the Planning and Development Act 2000, as amended
Prescribed Bodies	Irish Aviation Authority
Observers	None
Date of Site Inspection	16 May 2022
Inspector	Una Crosse

1.0 Introduction

- 1.1. An application has been made by Solas Eireann Development Limited under the provisions of section 182A of the Planning and Development Act 2000, as amended ('the Act'), for the development of a 110kV electrical substation associated electrical and other infrastructure, underground cable and all associated site works and drainage in the townlands of Ballinknockane and Ellaha, Co. Limerick.
- 1.2. The purpose of the proposed development is to connect two permitted solar farms, the Ballinknockane/ Ellaha Solar Farm (adjacent) and the Deelish/Mullagh Solar Farm which is located 1.19km to the southwest of the site (refer to Section 4 below for reference details) to an existing 110kV overhead transmission line to facilitate the export of electricity from the solar farms, when constructed and operational, to the national grid.
- 1.3. The proposed development was the subject of pre-application consultation (ABP-308018-20) on foot of which the Board determined on 9 November 2020 that the proposed development would constitute Strategic Infrastructure Development.

2.0 Site Location and Description

- 2.1. The proposed development is located in the townland of Ballinknockane, Co Limerick. It lies c 5km southeast of Foynes and c 5.6km southwest of Askeaton. The site is part of a larger agricultural holding used primarily for cattle grazing. The lands, which are gently undulating, consist of rectangular fields separated by hedgerows. The Ahacronane River runs along the bottom of an elevated ridge to the east. There is a complex of farm buildings towards the northern end of the land holding.
- 2.2. Access to the site is from a private farm access off the L1222 local road to the west. Views into the site are curtailed by a wide band of trees and scrub vegetation located adjacent to the road. The pattern of development is dispersed consisting of isolated dwellings and farm holdings with some ribbon development along the road network.

3.0 Proposed Development

- 3.1. The proposal is to construct a new 110kV 4 bay C-type substation with 2 new overhead line (OHL) end towers to connect into the existing Aughinish-Kilpaddoge

110kV overhead line. The connection would be made by way of a looped connection. The substation is required to transfer energy generated by two permitted solar farms to the national grid.

3.2. The substation would consist of 2 control buildings, a transformer compound and high voltage (HV) switchgear compound. Substation electrical equipment would be installed in the control buildings once complete. A power transformer, high voltage (HV) electrical equipment, lightning protection masts and structural steelwork would be installed in the transformer compound. High voltage electrical equipment for 4 bays, OHL gantry, lightning protection masts and structural steelwork would be installed in the HV switchgear compound. Palisade and concrete post and rail fencing will be erected around the compound.

3.3. The application was accompanied by the following assessments:

- Planning Statement
- Ecological Impact Assessment
- Natura Impact Statement
- Landscape and Visual Impact Assessment
- Archaeological Impact Assessment
- Hydrology
- Construction Traffic Management Plan (CTMP)
- Outline Construction and Environmental Management Plan (OCEMP)

4.0 Planning History

4.1. **Reg No 17/1220** – Permission granted subject to 24 conditions for a solar farm with a total site area of 61.29 hectares and ancillary infrastructure at Ellaha and Ballinknockane, Co Limerick. The site surrounds the proposed substation site.

4.2. **Reg No 19/18** – Permission granted subject to 28 conditions for a solar farm with a total site area of 30.15 hectares and ancillary infrastructure at Deelish and Mullagh, Co Limerick which is located 1.19km to the southwest of the site.

5.0 Policy Context

5.1. National Policy

5.1.1. National Planning Framework

The National Policy Position establishes the fundamental national objective of achieving a transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050. This will be achieved by harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar.

Of particular relevance is National Strategic Outcome NSO8 which seeks a Transition to a low carbon and climate resilient economy. It is stated that “*the National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. 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*”.

National Policy Objective (NPO) 55 seeks to “promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050”.

5.1.2. Climate Action Plan 2023

The Climate Action Plan (CAP) 2023 was adopted in December 2022 and follows a number of predecessors which arose following the declaration of a climate and biodiversity emergency by the Irish Government. The Plan seeks to identify how Ireland will achieve its 2030 targets for carbon emissions by sector and through a series of actions. The overarching requirement in the Climate Action Plan as they relate to electricity require transformational policies, measures and actions, and societal change to increase the deployment of renewable energy generation, strengthen the grid, and meet the demand for flexibility in response to the challenge.

The Plan seeks to reduce the State’s greenhouse gas emissions by 51% by 2030. One of the most important measures increasing the proportion of renewable electricity to up to 80% by 2030, including a target of 9 GW from onshore wind, 8 GW from solar and at least 5 Gigawatts of offshore wind energy by 2030.

5.2. Regional Policy

5.2.1. Southern Regional Spatial and Economic Strategy

At Section 8.2 – strategy energy grid – it states that “*there is significant potential to use renewable energy across the Region to achieve climate change emission reduction targets. With costs actively driven down by innovation in solar, onshore and offshore wind in particular, the renewable industry is increasingly cost competitive. The RSES supports renewable industries and requirements for transmission and distribution infrastructure*”.

5.3. Local Policy

5.3.1. Development Plan

The operative development plan is the **Limerick Development Plan 2022-2028**.

It supports the development of energy from renewable sources including solar (Policy CAF P6, Objective CAF 027) subject to appropriate levels of environmental assessment and planning considerations.

5.4. National Heritage Designations

Site	Distance
Lower River Shannon SAC – site code 002165	1.4km N
Barrigone SAC – site code 000432	1.6km NE
Askeaton Fen Complex SAC – site code 002279	6.8km SE
Curraghchase Woods SAC - Site code 000174	10.5km E-NE
River Shannon & River Fergus Estuaries SPA - Site Code 004077	1.52km N

Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA – site code 004161	5.3km SW
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6.0 EIA Screening

6.1.1. Annex I & Annex II to Directive 2011/92/EU as amended by 2014/52/EU and Part 1 & Part 2 of Schedule 5 (Planning and Development Regulations 2001, as amended) set out the classes of development for the purposes of EIA.

- Section 20 of Part 1 provides that a mandatory EIAR is required for the *'Construction of overhead electrical power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometres'*.
- Section 3(b) of Part 2 provides that a mandatory EIAR is required for *'Industrial installations for carrying gas, steam and hot water with a potential heat output of 300 megawatts or more, or transmission of electrical energy by overhead cables not included in Part 1 of this Schedule, where the voltage would be 200 kilovolts or more'*.

6.1.2. The proposed development of a 110kV substation and connection to the existing 110kV line would not come within the projects outlined within either Annex I or Annex II to Directive 2011/92/EU as amended by 2014/52/EU nor is it a class as set out in either Part 1 or Part 2 of Schedule 5 (Planning and Development Regulations 2001, as amended) and therefore a mandatory EIAR is not required.

7.0 Submissions and Observations

7.1. Planning Authority

7.1.1. The submission received from the Planning Authority describes the site, the proposal, planning history and policy which are addressed above. The remainder of the report and appendices can be summarised as follows:

- Development of renewable energy supported at all level with proposal to facilitate connection of a solar farm to the national grid broadly supported in principle subject to other planning and environmental considerations.

- No noise assessment in terms of potential impact on noise sensitive receptors and NIS does not outline the standards and time periods indicated with a noise assessment required.
- Flood risk and drainage impact assessment makes reference to PFRA mapping which is superseded by CFRAM mapping but notes area within Flood Zone C and deemed appropriate with additional surface water details required by Roads Section.
- Archaeological and architectural heritage assessment should refer more thoroughly to the previous assessment for Ref. 17/1220 which considered full development site including area of proposed substation.
- Roads section seeks additional details.
- Site located within Shannon Coastal Zone Landscape Character area with no designated scenic views/prospects in the vicinity and given small scale potential visibility found to be limited to receptors within immediate area.
- Lighting details to be submitted.
- Haulage route which may be from Foynes Port was consented as part of previous application.
- Development contribution of €4,000.
- Concluded that proposal would not be unduly injurious to the visual or residential amenities of the area and would not result negatively on the nearby Natura 2000 sites and considered to comply with national, regional and local policy and proper planning and sustainable development.
- Proposed conditions are outlined.

Internal Reports

Environment section (wastewater)

- Foul holding tank to be alarmed visually and audibly.

Fire Service

- No objection.

Environment, Recreation and Climate Change (CFRAM Capital Projects)

- Mapping reference superseded but site within Flood Zone C so no objection.

Planning, Environment & Place Making (Noise)

- No noise assessment and one should be prepared with proposed assessment criteria outlined.

Mid West National Roads Design Office

- No observations.

Roads Traffic and Cleaning/Central Services

- Inadequate sightlines or stopping sight distance shown which must be addressed.
- Revised site layout with topographical survey background with sightlines shown.
- Any boundaries outside of applicants control to be shown.
- Address stopping sight distance in line with the DMRB
- Road upgrade works, gradient details, road opening licence.
- Proposed conditions.
- Lighting design to be submitted.
- Revisions to surface water management layout and details.
- Construction management and delivery plan – conditions.

Archaeologist

- Should refer more thoroughly to previous impact assessment.
- Archaeological impact not quantified in terms of area which is usual practice.
- Report should refer to status of programme of advanced archaeological test trenching proposed in Ref. 17/1220.
- Conditions proposed.

Heritage Officer

- Conditions proposed.

7.2. Prescribed Bodies

7.2.1. Irish Aviation Authority

No observations

7.2.2. Transport Infrastructure Ireland

- Notes associated files which TII has no record of.
- Noted proposal does not directly impact strategic national road network and no abnormal loads proposed.
- If abnormal load required permit required.
- Applicant should consult with all PPP companies, Contractors and road authorities over the haul routes to ascertain any operational requirements.
- Any damage to the existing national road network to be rectified.

7.3. Third Party Observations

7.3.1. No observations were received.

8.0 Applicant's Response to Submissions

8.1. The applicant's response to the submissions is summarised as follows:

- Applicant satisfied with LCCC conditions.
- Proposal is 370m from nearest receptor with any construction noise from this distance barely perceptible and detailed assessment of the impacts at this distance is not required as the impact will be low.
- Main source of operational noise is the transformer unit with the SPL 30dB at closest receptor which is 5dB below the adopted 35dB background level with the solar panels from the solar farm (17/1220) acting as barriers to the propagation of the noise with operational noise negligible.
- Distance attenuation calculation not taken account of topography, vegetation or other intervening structures.

- Final construction drawings will show compliance with requirements to prevent surface water onto public highway with final CTMP to be submitted prior to construction.
- Both archaeological impact assessments submitted identified same constraints and similar approach with constraints previously identified feeding into design of current proposal incorporating buffer zones.
- Drawing submitted included site specific topographical detail and outlined exact works with little additional details available to include but can submit details to comply with proposed condition 8 on visibility splays.
- All works to achieve the splay were approved as part of the solar farm (Ref. 17/1220).
- Happy to comply with conditions 8, 13 & 16 which relate to the production of a CTMP, access and transport with all other points for further work on the site access point which are usually conditioned post consent.
- Confirm that foul holding tank will have correct alarms.
- Waste management plan will be developed as part of a wider CEMP.
- Lighting details to be submitted as part of proposed condition 5 of LCCC report.
- Agree with comments of Heritage Officer.
- Applicant will have no issue abiding with requirements of the TII.

9.0 Oral Hearing

- 9.1. The Board directed on the 25 August 2022 that an Oral Hearing in respect of the application should not be held.

10.0 Planning and Environmental Assessment

- 10.1. Having regard to the requirements of the Planning and Development Act 2000, as amended, there are two parts to my assessment: this planning and environmental assessment and an appropriate assessment in Section 11 below. In the interests of

brevity, I have sought to avoid undue repetition where possible, instead indicating where overlaps occur.

10.2. I consider that the key planning and environmental issues arising are as follows:

- Principle and planning policy.
- Residential amenity.
- Other Matters

10.3. **Principle and Planning Policy**

10.3.1. As set out above, the proposed development comprises a 110kV substation and associated electrical and other infrastructure, which is required to connect two permitted solar farms to the national grid. Renewable energy projects are supported 'in principle' at national, regional and local policy levels, with the imperative at all policy levels being the need to reduce greenhouse gas emissions, reduce reliance on fossil fuels and combat climate change.

10.3.2. The application site is located within a large agricultural landholding, upon which permission has been granted for a large solar farm. The proposed development would have significant separation distances from the nearest public roads and residential dwellings (c.370m from the substation), and would be surrounded to the west, north and east by photovoltaic panels and other infrastructure associated with the permitted solar farm. The site is immediately adjacent to an existing 110kV overhead power line and it is not subject to any particular constraints in terms of archaeological, cultural and architectural heritage, landscape designation or land use zoning objectives.

10.3.3. It is clear that there is substantial policy support at national, regional and local level for the development of the electricity network and for renewable energy projects, such as that which would be facilitated by the proposed development. I therefore consider the proposed development to be acceptable in principle, subject to consideration of the key planning and environmental issues outlined below as well as the issue of AA, as addressed in Section 11, below.

10.4. Residential Amenity

- 10.4.1. The application site is located within a large agricultural landholding, and the proposed substation would have separation distances of c. 370m to the residential dwelling. I note that no third-party observations were made in respect of this application.
- 10.4.2. I would refer the Board to the Landscape and Visual assessment undertaken which concludes that the proposal will have a very limited impact on views within the local area or within the 5km wider area. The development must also be considered in the context of the permitted solar farm which has changed the landscape within which the development would be sited. I consider that the proposal would be acceptable from a landscape and visual amenity perspective.
- 10.4.3. I note the concerns raised by LCCC in respect of noise and in particular their recommendation that a noise impact assessment is prepared and submitted. However, I would have to agree with the response outlined by the applicant in respect of the likely impacts which are considered to be low. Having regard to the substantial separation distances between the construction works and the transformer when operational and the attenuation provided by topography, vegetation and intervening structures I do not consider that any significant impacts on residential amenity are likely to occur during the construction or operational phases.
- 10.4.4. Given 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.

10.5. Other Issues

10.5.1. Access and Traffic

Firstly, in the application documentation, it is outlined that for a local road with a speed limit of 80km/h a visibility Splay of 90m x 3m is deemed sufficient. It is stated that the lowering of the existing wall to approximately 1.05m in height and trimming of approximately 146.5m of hedgerow is required to achieve the required visibility. I would note that 90m in either direction of the access is within the landholding. It is

also outlined that the splay dimensions of 90m x 3m and remedial works were consented as part of the previous application (Planning Ref: 17/1220).

In relation to the further information recommended by the Roads Department in LCCC I would agree with the applicant that the information provided is sufficient and any further details which the Council would like can be conditioned and delivered as part of the post consent process.

10.5.2. Surface Water Management

The site is located within Flood Zone C and the applicant has committed to ensuring that surface water from the proposed development will be controlled and will not impact the public road. A drainage management plan has been submitted and is sufficient for the purposes of assessing the proposal.

10.5.3. Archaeology

An archaeological impact assessment accompanies the application and concludes that the proposal would have a moderate potential to encounter or disturb below-ground archaeology in general but that such sub-surface remains associated with these potentials are considered likely to be of low significance and the implementation of an appropriate archaeological programme of works will result in residual direct effects being low to negligible. I consider that this is reasonable based on the information submitted. I note the report from the Local Authority but I would agree with the applicant that both archaeological impact assessments submitted identified the same constraints and that a similar approach with constraints to that previously identified has been incorporated into the design of the current proposal particularly in respect of the incorporation of buffer zones.

10.5.4. Ecology

The application is accompanied by an Ecological Impact Assessment. I note the applicant's contention that the integral design measures and mitigation measures proposed within the EclA, such as pre-commencement badger surveys and installation of appropriate fencing to facilitate movement of mammal species will ensure no significant effects on the environment. I note that a total of twelve habitat types were noted during the Fossitt habitat survey undertaken in January and February 2021 with habitat types recorded comprising depositing lowland rivers, treelines, wet grassland, improved agricultural grassland, oak-ash-hazel woodland,

dry calcareous and neutral grassland, scrub, exposed calcareous rock, spoil and bare ground, buildings and artificial surfaces, stonewalls and other stonework, and refuse and other waste. While there is a direct loss of habitat to facilitate the proposal, improved agricultural grassland is the only habitat that is proposed to be removed and this habitat is of low ecological value and is very common in the wider area. I consider that this matter has been appropriately addressed.

10.5.5. Development Contributions

10.5.6. The Planning Authority, in their submission to the Board, state that a development contribution is payable and outline the proposed charge for same. The applicant does not provide any response to same. I recommend that a standard section 48 condition is attached to any grant of permission.

11.0 **Appropriate Assessment**

11.1. **Introduction**

11.1.1. The areas addressed in this section are as follows:

- Compliance with Articles 6(3) of the EU Habitats Directive
- The Natura Impact Statement
- Appropriate Assessment Screening
- Appropriate Assessment of Relevant European Sites

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

The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

11.3. **The Natura Impact Statement**

The application for approval was accompanied by an NIS (dated June 2022). The NIS contains a Stage 1 Screening Assessment by way of an identification of sites within 15km of the site which concluded that a Stage 2 Appropriate Assessment was required as two sites have potential connectivity with the subject development. Table 1-1 outlines the sites in question. The NIS outlines the methodology used for assessing potential impacts on the habitats and species within several European Sites that have the potential to be affected by the proposed development. It predicts the potential impacts for these sites and their conservation objectives, it suggests mitigation measures and assess in-combination effects (cumulative effects) with other plans and projects.

While Article 6(3) of the Directive references particular language including in-combination effects and adverse effects there are areas within the NIS document where this has not been done. However, the NIS does provide the information which facilitates the Board making its determination so I consider that the document can be accepted.

The NIS was informed by the Ecological Impact Assessment and habitat assessment undertaken. The NIS concluded that, subject to the implementation of best practice and the recommended mitigation measures, the proposed development would not have a significant effect on any qualifying features and by that reason the integrity of the sites.

Having reviewed the revised NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge. Details of mitigation measures are provided and they are summarised in the NIS. I am satisfied that the information is sufficient to allow for appropriate assessment of the proposed development (see further analysis below).

11.4. **Appropriate Assessment Screening**

I consider that the proposed development comprising an electrical substation is not directly connected with or necessary to the management of any European site.

As outlined in the NIS, the Ellaha Stream flows along the western boundary of the subject site with this watercourse connecting to the Ahacronane river which discharges into the River Shannon & River Fergus Estuaries SPA and Lower River Shannon SAC. The total distance downstream to the two sites from where the Ellaha stream joins the subject site boundary to the Ahacronane river is 1.87km (SPA) and 1.65km (SAC).

Having regard to the information and submissions available, nature, size and location of the proposed development and its likely direct, indirect and cumulative effects, the source pathway receptor principle and sensitivities of the ecological receptors the following European Sites are considered relevant to include for the purposes of initial screening for the requirement for Stage 2 appropriate assessment on the basis of likely significant effects.

European sites considered for Stage 1 screening (Figure 1 in NIS provides a map of the sites in context of subject site).

European site (SAC/SPA)	Qualifying Interests/Special Conservation Interests
Lower River Shannon SAC – Site Code 002165	<ul style="list-style-type: none"> • Sandbanks which are slightly covered by sea water all the time [1110] • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Coastal lagoons [1150] • Large shallow inlets and bays [1160] • Reefs [1170] • Perennial vegetation of stony banks [1220] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]

European site (SAC/SPA)	Qualifying Interests/Special Conservation Interests
	<ul style="list-style-type: none"> • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260] • Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] • Petromyzon marinus (Sea Lamprey) [1095] • Lampetra planeri (Brook Lamprey) [1096] • Lampetra fluviatilis (River Lamprey) [1099] • Salmo salar (Salmon) [1106] • Tursiops truncatus (Common Bottlenose Dolphin) [1349] • Lutra lutra (Otter) [1355]

European site (SAC/SPA)	Qualifying Interests/Special Conservation Interests
Barrigone SAC – site code 000432	<ul style="list-style-type: none"> • Juniperus communis formations on heaths or calcareous grasslands [5130] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] • Limestone pavements [8240] • Euphydryas aurinia (Marsh Fritillary) [1065]
Askeaton Fen Complex – Site code 002279	<ul style="list-style-type: none"> • Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] • Alkaline fens [7230]
Curraghchase Woods SAC Site code 000174	<ul style="list-style-type: none"> • Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • Taxus baccata woods of the British Isles [91J0] • Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] • Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]
River Shannon & River Fergus Estuaries SPA Site Code 004077	<ul style="list-style-type: none"> • Cormorant (Phalacrocorax carbo) [A017] • Whooper Swan (Cygnus cygnus) [A038] • Light-bellied Brent Goose (Branta bernicla hrota) [A046] • Shelduck (Tadorna tadorna) [A048] • Wigeon (Anas penelope) [A050] • Teal (Anas crecca) [A052]

European site (SAC/SPA)	Qualifying Interests/Special Conservation Interests
	<ul style="list-style-type: none"> • Pintail (<i>Anas acuta</i>) [A054] • Shoveler (<i>Anas clypeata</i>) [A056] • Scaup (<i>Aythya marila</i>) [A062] • Ringed Plover (<i>Charadrius hiaticula</i>) [A137] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Lapwing (<i>Vanellus vanellus</i>) [A142] • Knot (<i>Calidris canutus</i>) [A143] • Dunlin (<i>Calidris alpina</i>) [A149] • Black-tailed Godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Greenshank (<i>Tringa nebularia</i>) [A164] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Wetland and Waterbirds [A999]
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA – site code 004161	<ul style="list-style-type: none"> • Hen Harrier (<i>Circus cyaneus</i>) [A082]

The following table examines the proximity of the proposed development to the sites and the presence or not of a hydrological link/pathway or potential connectivity on the basis of the QI's/SCI's for which the sites are designated.

Site Name	Distance	Hydrological Link/Pathway
Lower River Shannon SAC – site code 002165	1.4km N	Hydrological and Ecological (otter & other species) connection through the Ahacronance and Ellaha Stream
Barrigone SAC – site code 000432	1.6km NE	No records of the relevant mobile species (Marsh butterfly) within 2km of site with other QI's on site. No pathway/substantive linkage exists.
Askeaton Fen Complex SAC – site code 002279	6.8km SE	Designated for terrestrial habitats with no connectivity. No pathway/substantive linkage exists.
Curraghchase Woods SAC - Site code 000174	10.5km E-NE	No record of bat species or suitable trees on site with roost potential and too distant from subject site. No pathway/substantive linkage exists
River Shannon & River Fergus Estuaries SPA - Site Code 004077	1.52km N	Ornithological and hydrological connection through the Ahacronance and Ellaha Stream
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA – site code 004161	5.3km SW	Site outside range. No pathway/substantive linkage exists

11.4.1. Appropriate Assessment Screening Conclusion

Based on my examination of the NIS report, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation

distance and functional relationship between the proposed works and the European sites, their conservation objectives and taken in conjunction with my assessment of the subject site and the surrounding area, I would conclude that a Stage 2 Appropriate Assessment is required for two of the six European sites referred to above. These are the Lower River Shannon SAC 002165 and River Shannon & River Fergus Estuaries SPA 004077.

The remaining four sites can be screened out from further assessment because of the zone of influence of the proposed works, the scale of the proposed works, the nature of the Conservation Objectives, Qualifying and Special Conservation Interests, the separation distances and the lack of a substantive linkage between the proposed works and the European sites. It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on the following European Sites: the Barrigone SAC – site code 000432, the Askeaton Fen Complex SAC – site code 002279, the Curraghchase Woods SAC - Site code 000174 and the Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA – site code 004161 in view of the site(s) conservation objectives and a Stage 2 Appropriate Assessment is not therefore required for these sites.

11.5. Appropriate Assessment of Relevant European sites

The Conservation Objectives and Qualifying Interests, including any relevant attributes and targets for these sites, are considered in the following sections.

11.5.1. Lower River Shannon SAC - site code: 002165

This site is considered to be of great ecological interest as it contains a high number of habitats and species listed on Annexes I and II of the E.U. Habitats Directive, including the priority habitats lagoon and alluvial woodland, the only known resident population of Bottle-nosed Dolphin in Ireland and all three Irish lamprey species. A

number of species listed on Annex I of the E.U. Birds Directive are also present, either wintering or breeding.

The qualifying interests for this site are as follows:

- Sandbanks which are slightly covered by sea water all the time [1110]
- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Coastal lagoons [1150]
- Large shallow inlets and bays [1160]
- Reefs [1170]
- Perennial vegetation of stony banks [1220]
- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]
- Salicornia and other annuals colonising mud and sand [1310]
- Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]
- Mediterranean salt meadows (*Juncetalia maritimi*) [1410]
- Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation [3260]
- *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410]
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]
- *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra planeri* (Brook Lamprey) [1096]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Salmo salar* (Salmon) [1106]
- *Tursiops truncatus* (Common Bottlenose Dolphin) [1349]
- *Lutra lutra* (Otter) [1355]

Conservation Objectives

The conservation objectives seeks to maintain the favourable conservation condition of the brook lamprey, river lamprey, sandbanks, estuaries, mudflats and sandflats, large shallow inlets and bays, reefs, perennial vegetation of stony banks, vegetated sea cliffs of the Atlantic and Baltic Coasts, Salicornia, Bottlenose Dolphin, Water courses of plain to montane levels, Molinia meadows on calcareous, peaty or clayey-silt-laden soils and restore the favourable conservation condition of the freshwater pearl mussel, sea lamprey, Atlantic salmon, coastal lagoons (priority habitat), Atlantic salt meadows, Otter, Mediterranean salt meadows and Alluvial forests.

Types of Impacts which could lead to Adverse Affects

Pollution/Contamination of Surface Waters

As outlined in the NIS, aquatic systems and the species/habitats which are dependent on these systems are sensitive to the potential pollution/contamination of surface waters. It is outlined that such pollution can result from any of the following entering a body of surface or groundwater:

- Poisonous, noxious or polluting matter;
- Waste matter (including silt, cement, concrete, oil, petroleum spirit, chemicals, solvents, sewage and other polluting matter);
- Other harmful activities detrimentally affecting the status of a waterbody.

It is also stated that in the addition to the impact of chemical pollution, the status of a waterbody can be affected by activities directly or indirectly affecting ecology, including changes in physio-chemical parameters such as temperature and turbidity or physical modification to the hydrology of a waterbody. Table 1-2 of the NIS provides a useful outlines of the common water pollutants and their potential effects on the aquatic environmental in the context of the potential polluting activities which would be associated with a development such as that proposed such as top soil removal and excavation, cleaning of machinery, oil and fuel leaks. While more appropriately addressed under mitigation, it is stated in the NIS that operations and activities with the potential to impact on the water environment will be regularly monitored throughout the construction phase.

Consideration of Direct and Indirect Effects on the Qualifying Interests.

Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]

As detailed in the NIS, the subject site does not provide suitable habitat for freshwater pearl mussel. As outlined in the conservation objectives document for the Lower River Shannon SAC, freshwater pearl mussel populations reside in a different catchment along the northern section of the Shannon estuary which provides that there is no hydrological link between the site and the subject QI and therefore there could be no adverse affect on the integrity of the European site in light of the conservation objective for this qualifying interest arising from the proposed could not potentially cause adverse affects.

Petromyzon marinus (Sea Lamprey) [1095], Lampetra planeri (Brook Lamprey) [1096], Lampetra fluviatilis (River Lamprey) [1099] and Salmo salar (Salmon) [1106]

In relation to the three lampray species and salmon, it is stated that the Ellaha stream has the potential to support brook lamprey and the Ahacronane river has the potential to support sea lamprey, river lamprey and salmon. There is therefore the potential for surface water pollutants to adversely affect brook, sea and river lamprey and salmon by way of run-off and leaching of contaminants into their aquatic environment.

Lutra lutra (Otter) [1355]

In terms of the Otter, this is the only mobile qualifying species within the aquatic environment, with the potential to commute through the terrestrial habitats on the site. It is stated in the NIS that during the Fossitt survey undertaken on the site, the site was checked for signs of protected or notable species but no holts and/or resting places, or any other field signs of otter, were identified. The proximity of the development site to the Lower River Shannon SAC, the presence of suitable habitat for otter, and the fact that otter is a highly mobile species (can hold territories from 2km to 40km), the use of the development site by otter in the future cannot be ruled out and the potential for adverse affects exist. In this regard, it is recommended that a pre-commencement otter survey be undertaken by a suitably experienced ecologist prior to the construction phase. Where holts/resting places are found, additional measures may be required to prevent significant effects for otter.

Tursiops truncatus (Common Bottlenose Dolphin) [1349]

While the site does not provide suitable habitat for the common bottlenose dolphin if contaminants enter the aquatic system the potential for adverse affects may arise.

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] and Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

While not found within the footprint of the works area and therefore there is no potential direct effect, there is a potential indirect effect given these QI's could be present downstream of the works. In terms of potential indirect effects, there is the potential for an impact on water quality due to the release of sediments or hydrocarbons with the potential for the contamination of the aquatic environment by way of run-off and leaching of contaminants.

Other QI's

Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150] Large shallow inlets and bays [1160], Reefs [1170], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330] and Mediterranean salt meadows (Juncetalia maritimi) [1410]

While there is a hydrological link, the distance between the site and these QI's is so significant coupled with the dilution provided in the downstream coastal waterbodies that the proposal would not result in any adverse affect. While the NIS does not provide any distance it is clear from the maps associated with the Conservation objectives that there would be no affects. I am satisfied that the proposed development would not adversely affect the integrity of the European sites in light of the conservation objective for this qualifying interest.

11.5.2. River Shannon & River Fergus Estuaries SPA - Site Code 004077

The River Shannon & River Fergus Estuaries SPA is of ornithological importance and forms the largest estuarine complex in Ireland, and supports wetland and waterbirds associated with saltmarshes and intertidal sand/mudflats.

I would note that the wetlands have the following Conservation Objective - *To maintain the favourable conservation condition of wetland habitat in the River Shannon and River Fergus Estuaries SPA.*

The rest of the Special Conservation Interests all have the same conservation objective which is to maintain the favourable conservation condition of the species.

- Cormorant (*Phalacrocorax carbo*) [A017]
- Whooper Swan (*Cygnus cygnus*) [A038] - (wintering)
- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] - (wintering)
- Shelduck (*Tadorna tadorna*) [A048] - (wintering)
- Wigeon (*Anas penelope*) [A050] - (wintering)
- Teal (*Anas crecca*) [A052] - (wintering)
- Pintail (*Anas acuta*) [A054] - (wintering)
- Shoveler (*Anas clypeata*) [A056] - (wintering)
- Scaup (*Aythya marila*) [A062] - (wintering)
- Ringed Plover (*Charadrius hiaticula*) [A137] - (wintering)
- Golden Plover (*Pluvialis apricaria*) [A140] - (wintering)
- Grey Plover (*Pluvialis squatarola*) [A141] - (wintering)
- Lapwing (*Vanellus vanellus*) [A142] - (wintering)
- Knot (*Calidris canutus*) [A143] - (wintering)
- Dunlin (*Calidris alpina*) [A149] - (wintering)
- Black-tailed Godwit (*Limosa limosa*) [A156] - (wintering)
- Bar-tailed Godwit (*Limosa lapponica*) [A157] - (wintering)
- Curlew (*Numenius arquata*) [A160] - (wintering)
- Redshank (*Tringa totanus*) [A162] - (wintering)

- Greenshank (*Tringa nebularia*) [A164] - (wintering)
- Black-headed Gull (*Chroicocephalus ridibundus*) [A179] - (wintering)
- Wetlands [A999]

Types of Impacts which could lead to Adverse Affects

Given that the subject site is hydrologically connected with the SPA, there is potential for habitats within the SPA associated with supporting the ornithological qualifying species to be degraded if contamination of the aquatic environment were to occur. The results of the habitat survey undertaken, indicates that the habitat on the subject site does not support significant areas of suitable habitat for wildfowl and waders and there is no evidence of wildfowl or wading bird species present within the development site during the survey. The development site is significantly removed from the SPA such that construction noise associated with the proposal would not impact the relevant SCI's.

11.5.3. Potential in-combination effects (both sites)

In-combination effects are considered under the heading cumulative effects. I note the consideration of national and regional policies as well as the local planning policy. In terms of other developments, a review was undertaken of other developments within the area and of particular note are the two solar farms which the proposed development seeks to connect to the grid. Another application of note is Reg. Ref. 19/861 which comprised the filling of land with suitable material to the proposed levels and all associated site works. It is concluded that the proposed development will have at worst a negligible effect upon any individual receptor. I consider that it can be concluded that with the implementation of specific environmental protection and control measures to avoid/negate any potential adverse impacts, there will be no cumulative impacts arising in combination with any other plans or project which would be of significance in respect to impacts affecting the conservation objectives of integrity of the Lower River Shannon SAC or the River Shannon and River Fergus Estuaries SPA.

11.5.4. Mitigation measures related to both sites

Mitigation measures are contained from para 1.98 of the NIS. The design of the proposed development including the surface water management measures including SUDS provide best practice in managing surface water flow from the site.

Table 7-1 provides specific measures for the aquatic environment, lampray, salmon and the otter including 2m and 5m buffers from field drains and the main watercourse respectively and security fencing to include mammal gates to facilitate free movement of the otter.

In relation to the otter, it is also proposed to complete a pre-commencement survey of the site to identify if the species is present.

The NIS also outlines standard best practice measures including a range of pollution prevention measures and biosecurity measures.

Measures are proposed in respect of pollution prevention, noise and vibration measures and dust minimisation. The proposed drainage management plan provides a suite of mitigation including emergency spill or pollution response plans, and silt control measures.

Monitoring of the water environment is also proposed and is an intrinsic part of the measures outlined.

11.5.5. Conclusion on Lower River Shannon SAC site code: 002165

I consider that the potential direct and indirect effects on the qualifying interests identified as having the potential to be affected have been satisfactorily identified. The mitigation measures outlined are comprehensive and address the potential direct and indirect effects appropriately.

I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of this European site in light of its conservation objectives subject to the implementation of mitigation measures outlined above.

11.5.6. Conclusion on River Shannon and River Fergus Estuaries – site code 004077

I consider that the potential direct and indirect effects on the special conservation interests identified as having the potential to be affected have been satisfactorily

identified. The mitigation measures outlined are comprehensive and address the potential direct and indirect effects appropriately.

I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of this European site in light of its conservation objectives subject to the implementation of mitigation measures outlined above.

11.5.7. Appropriate Assessment Conclusion

Having carried out screening for Appropriate Assessment of the project, it was concluded that the proposed development may have a significant effect on the following European sites;

- Lower River Shannon SAC (002165);
- River Shannon and River Fergus Estuaries SPA (004077)

Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying interests/special conservation interests of those sites in light of their conservation objectives.

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 Lower River Shannon SAC (002165) and the River Shannon and River Fergus Estuaries SPA (004077), or any other European site, in view of the site's Conservation Objectives. 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.

This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures.
- Detailed assessment of in combination effects with other plans and projects including existing, permitted and proposed projects and plans.

- The lack of reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower River Shannon SAC (002165) and the River Shannon and River Fergus Estuaries SPA (004077)

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

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) national and local policy support for developing renewable energy, in particular:
 - National Planning Framework, 2018,
 - Climate Action Plan, 2023
 - Regional Spatial and Economic Strategy for the Southern Region
 - Limerick City and County Development Plan, 2022-2028,
- (d) the distance to dwellings or other sensitive receptors from the proposed development,
- (e) the planning history of the immediate area including, in particular, the permitted solar farms (Reg. Ref. 17/1220 & 19/18). This development will serve as the grid connection for this generating asset infrastructure,
- (f) the submissions on file from prescribed bodies and the Planning Authority,
- (g) the Natura impact statement submitted,
- (h) the report of the Inspector.

13.1. Appropriate Assessment - Stage 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 sites in respect of which the proposed development has the potential to have a significant effect are the Lower River Shannon SAC (002165) and the River Shannon and River Fergus Estuaries SPA (004077).

13.2. **Appropriate Assessment – Stage 2**

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 Sites, namely, Lower River Shannon SAC (002165) and the River Shannon and River Fergus Estuaries SPA (004077), 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.

In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regard to the sites' Conservation Objectives.

In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites, in view of the sites' Conservation Objectives.

13.3. **Proper Planning and Sustainable Development**

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. 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.

Reason: In the interest of clarity.

2. All of the environmental, construction and ecological mitigation and monitoring measures set out in the Natura Impact Statement, and other particulars submitted with the application shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order.

Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

3. 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.

Reason: In the interest of environmental protection and public health.

4. The developer shall comply with the following requirements:
 - (a) Prior to commencement of development an operational lighting plan for the development which shall accord with the requirements of the planning authority.

(b) CCTV cameras shall be fixed and angled to face into the site and shall not be directed towards adjoining property or roads.

(c) Cables within the site shall be located underground.

(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.

Reason: In the interest of clarity, of visual and residential amenity.

5. 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.

Reason: To assist in screening the proposed development from view and to blend it into its surroundings in the interest of visual amenity.

6. The developer shall comply with the transportation requirements of the planning authority for such works and services as appropriate.

Reason: In the interest of traffic and pedestrian safety.

7. 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 CEMP. The CEMP shall incorporate the following:

(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;

- (b) a comprehensive programme for the implementation of all monitoring commitments made in the application and supporting documentation during the construction period;
- (c) an emergency response plan; and
- (d) proposals in relation to public information and communication.

A record of daily checks that the works are being undertaken in accordance with the Construction Environmental Management Plan shall be kept for inspection by the planning authority.

Reason: In the interest of environmental protection and orderly development.

8. The site development and construction works shall be carried out such a manner as to ensure that the adjoining 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.

Reason: To protect the residential amenities of property in the vicinity.

9. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –

- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
- (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
- (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

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.

10. 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 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.

Una Crosse

Senior Planning Inspector

20 February 2023