



An
Bord
Pleanála

Inspector's Report ABP-314527-22

Development	110kV substation using 'Loop-In/Loop Out' connection to overhead 110kV transmission lines
Location	Within the townlands of Ballymacasey, Coolnagraigue, Ballyline East, Ballyline West, Leanamore and Dromlivaun, Co. Kerry.
Planning Authority	Kerry County Council
Prospective Applicant	Harmony Solar Ireland Kerry Limited
Type of Application	Pre-application under section 182E of the Planning and Development Act 2000, as amended.
Date of Site Inspection	23 rd October 2022
Inspector	Máire Daly

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1.0 Introduction

- 1.1. On 29th August 2022, a request was received by An Bord Pleanála to enter into pre-applications discussions with respect to the proposed development under section 182E of the Planning and Development Act, 2000, as amended.
- 1.2. The Board's representatives met with the prospective applicant virtually on 2nd November 2022. The primary purpose of the meeting was to outline the details of the proposal and to address the issue of whether or not the proposed development constitutes strategic infrastructure for the purposes of the Act, and to consider matters relating to the proper planning and sustainable development of the area or the environment, which may have a bearing on the Board's decision and to outline the procedures involved in making any potential application.
- 1.3. The prospective applicant formally requested closure of the pre -application consultation process in correspondence dated 22nd November 2022.
- 1.4. This Report provides an overview of the project, a summary of the meeting and the advice provided by the Board, the legislative provisions, and it recommends a list of Prescribed Bodies that should be forwarded copies of the application.

2.0 Site Location and Description

- 2.1. The subject site is located in north County Kerry, c. 8.4km northeast of the town of Listowel and c. 4.2km south east of the smaller settlement of Ballylongford. The R551 regional road (linking Tarbert and Tralee) and R552 regional road (linking Ballylongford to Listowel) are both located to the north of the site, with the N69 national road located c. 3 km to the southeast.
- 2.2. The largest part of the site, which is to contain the proposed sub-station is located to the northeast and is accessed via an existing local road with some residential properties along same. A smaller parcel of land exists on the north western extremity of the subject site which is proposed to host 2 no. end masts for a second alternative LILO connection point if required. A proposed 110kV UGC route runs from this area of the site east through agricultural fields, located to the rear of a row of residential properties towards the substation.

- 2.3. 2 no. 110kV transmission lines are located along both the eastern and western site boundaries, both running in a north-south orientation. Site access to the proposed 110kV substation will be from the unnamed local road to the south, approx. 1.2 km from the substation. This local road connects to the L1012 to the north of the site. The L1012 connects to the R551 to the northwest at Ballylongford.
- 2.4. The site comprises agricultural lands with grazing and pasture activity evident. Adjacent land uses are also predominantly agricultural. Internal boundaries comprise hedgerows and tree lines typical to the area. The surrounding area is rural in character; comprising isolated one-off dwellings with farmsteads and concentrations of single dwellings dispersed along local road network. Areas of cutover peat bog are also a feature of the surrounding landscape which contributes to the open nature of the lands to the south of the site. Small areas of coniferous forestry and wet grassland/scrub are also a feature of the surrounding landscape in particular to the southeast of the proposed substation area.
- 2.5. A new access road is proposed to branch off the local road to the north of a junction with a local access road which provides a connection to several houses and a farmstead. The proposed new access road will run in a northern direction from the local road towards the substation site to the northeast. There are several large field drains within the area which connect with each other via existing conifer plantations and agricultural fields.

3.0 Proposed Development

- 3.1. The prospective applicant intends to seek consent for a 110kV on-site 'Loop-In/Loop Out' substation. The substation is to facilitate a planned ground mounted Solar PV Array on a site of c.146 hectares within the adjoining and nearby townlands of Ballymacasy, Coolnagraigue, Ballyline East, Ballyline West, Leanamore and Dromlivaun Co. Kerry. The prospective applicant has stated that a separate planning application will be submitted to Kerry County Council under section 34 of the Planning and Development Act 2000, as amended, seeking permission for this solar farm.

3.2. The main components of the subject development for the proposed substation would include:

- Electrical substation to Eirgrid standards on site of approx. 2.1 ha (gravel hardstanding [permeable] area approx. 2 ha), incorporating:
 - Security and safety fencing around the Independent Power Producer (IPP/Customer) compound and switch room building.
 - Eirgrid (TSO) compound with substation building, Electrical Equipment and lightening mast. The Eirgrid substation building will measure approximately 450 sq.m with a pitched roof and an overall height of 8.7m. The IPP switchgear room will consist of a building of approximately 192 sq.m with a pitched roof and an overall height of 6.9m.
 - Allowance for Eirgrid expansion area, (per EirGrid requirements).
- A 5.5m wide site road will provide access to the public road network to an unnamed local road to the south. The site access road will measure c. 1.2km from the entrance on the local road to the proposed substation compound.
- 2 no. end masts (c. 16m) alongside substation linked to the substation.
- In case there are capacity issues, a second LILO connection point has been identified and indicated in the layout drawings. This will provide the possibility with connecting to either point depending on capacity levels. The alternative 2 no. End Masts (c. 20m) are to be located in the central parcel, on the western extremity of the subject site within proximity to another overhead 110kV line and shall be linked to the substation by underground 110kV cabling.
- Substation sited alongside 110kV overhead line. Also allowance for connection to 110kV overhead line to the west. One connection will be utilised which is determined by capacity. Anticipated to be overhead line alongside substation.
- Associated site works and drainage.

3.3. As stated above the proposed development has identified 2 no. potential connections to the existing transmission network with 2 no. 110kV OH line connections sought for within this development. Ultimately, the applicant will only seek to connection to 1 no. OH transmission line. It is anticipated this will likely be to the OH line adjacent to the proposed 110kV substation.

4.0 Planning History

- 4.1. None relevant to development site.
- 4.2. Site to immediate west: **ABP Ref: 309156-21** – Permission granted in September 2022 for 12 wind turbines, substation, grid connection and ancillary site works.

5.0 Prospective Applicant's Case

- 5.1. The prospective applicant is clear that the development subject of this pre-application consultation request relates only to the proposed 110kV substation.
- 5.2. The prospective applicant is of the opinion that the proposed development for a 110kV substation and a LILO connection to an adjoining 110kV overhead line constitutes Strategic Infrastructure Development as it falls under the provisions of section 182A of the Planning and Development Act 2000, as amended.
- 5.3. The prospective applicant proposes to develop a solar farm on the adjacent lands (c. 146ha) under a separate application and to link the solar farm with the national grid using a LILO connection to the 110kV transmission line that traverses the landholding, adjacent to the proposed 110kV substation. It is proposed to connect the solar farm land parcels to the main 110kV site substation with underground cables via the public road and private lands.
- 5.4. The key elements of the prospective applicant's submission in support of the case being designated as strategic infrastructure are summarised as follows:
 - The prospective applicant notes that Section 182A (9) of the Planning and Development Act, 2000, as inserted by the Planning and Development (Strategic Infrastructure) Act, 2006, sets a threshold of 110 kilovolts in order for a high voltage electricity transmission line to be considered strategic infrastructure.
 - Whereas no threshold is set for substations, the proposed substation will, by way of the LILO connection, effectively become a node for 110kV overhead line and will thus form part of the national transmission network.
- 5.5. The prospective applicant also states that comparable precedent cases considered by An Bord Pleanála involving proposals for 110kV substation to allow connection to

the national grid for large scale solar PV schemes have determined that 110kV substations and associated ancillary development are strategic infrastructure. The Board also determined that associated solar PV components were not strategic infrastructure and consent for these should be made under the terms of section 34 of the Planning and Development Act 2000 (as amended). The 110kV substation will facilitate electrical connecting of the associated proposed solar farm and which will enhance the national transmission network and make a material contribution to the achievement of national and regional renewable energy and climate change targets.

5.6. It was concluded that the proposed development should be deemed a SID.

6.0 Pre-application Consultation

6.1. One Consultation meeting was held virtually via Microsoft Teams on 02nd November 2022. Minutes are attached to the file. A presentation was made to the Board's representatives at the meeting, which is also attached to the file.

6.2. During this meeting the prospective applicant described the site and surroundings, outlined the main elements of the proposed development and provided an update on the status of the project and related solar farm project. The prospective applicant stated that it is intended that a single Planning and Environmental Report and AA Screening/NIS will be undertaken for the overall project i.e. the 110kV substation and the Solar Farm. It was stated that no notable constraints have been identified.

6.3. The prospective applicant stated that the proposed substation has a grid connection agreement with Eirgrid.

6.4. The prospective applicant anticipated that the solar farm application would be submitted to Kerry County Council by the end of 2022 and the application to the Board if confirmed to be strategic development in early 2023.

6.5. The Board's representatives advised clarity in terms of reports with respect to the two separate projects and what is being applied for under what authority to avoid any procedural issues. It was advised that landscape and visual effects be assessed robustly and that account of any cumulative impacts with any approved adjoining or nearby projects (e.g., ABP Ref. 309156-21 for 12 no. turbines) be examined in detail and taken into account as part of the Planning and Environmental Report.

- 6.6. The prospective applicant, in correspondence received by the Board on 22nd November 2022, formally requested the closure of the pre-application process, and a determination on whether the subject development constitutes strategic infrastructure under S.182A of the Planning and Development Act 2000 (as amended).

7.0 Legislative Provision

- 7.1. Under **section 182A (1)** of the 2000 Act (inserted by section 4 of the 2006 Act) where a person, (thereafter referred to as the ‘undertaker’) intends to carry out development comprising, or, for the purposes of electricity transmission, (hereafter referred to in this section and section 182B as ‘proposed development’), the undertaker shall prepare, or cause to be prepared, an application for approval of development under section 182B and shall apply to the Board for such approval accordingly.
- 7.2. **Subsection 9** states that in this section ‘transmission’ in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of
- (a) a high voltage line where the voltage would be 110 kilovolts or more, or
 - (b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not.
- 7.3. The following definitions, as set out in **section 2(1) of the Electricity Regulation Act, 1999, as amended**, are noted:

‘Transmission’:

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

‘Distribution’:

“...the transport of electricity by means of a distribution system, that is to say, a system which consists of electric lines, electric plant, transformers and switch gear and which is used for conveying electricity to final customers”.

‘Electric plant’:

“...any plant, apparatus or appliance used for, or for the purposes connected with, the generation, transmission, distribution or supply of electricity other than –

- (a) An electric line
- (b) A meter used for ascertaining the quantity of electricity supplied to any premises, or
- (c) An electrical appliance under the control of the customer.

8.0 Assessment

- 8.1. The proposal comprises a new 110kV on-site ‘Loop-In/Loop Out’ substation, which is to facilitate a planned (but not yet consented) solar farm on a nearby site of up to approximately 146 hectares. The prospective applicant is clear that the development subject of this pre-application consultation request relates only to the proposed 110kV substation and its associated infrastructure.
- 8.2. The submitted proposal includes for 2 no. end masts (c. 16m in height) adjacent to the proposed substation linked to the substation and an alternative 2 no. end masts (c. 20m in height) which are proposed to be located close to the alternative existing 110kV line, and which in turn could be linked via underground cabling to the proposed substation. The prospective applicant has not yet confirmed which connection option will form part of any subsequent application and thus both are still open to consideration.
- 8.3. Section 182A (9) of the Act sets a threshold of 110kV in order for a high voltage electricity transmission line to be considered strategic infrastructure. No threshold is set in respect of a substation. I consider that the proposed substation constitutes ‘electrical plant’ as defined under Section 7.0 above in that it is plant for conveying of electricity from a generating station to a substation and/or facilitating connection to the national grid from an existing overhead line. The new substation and associated

infrastructure will enable the electricity generated by the solar farms to be stepped up to a voltage of 110kV for direct transmission to the national grid.

- 8.4. A key consideration in the current case is that of the nature of the 'loop-in/loop-out' grid connection arrangement which results in the proposed 110kV substation becoming an operational 'node' on the existing transmission network and consequently strategic infrastructure. I am of the opinion that the proposed development will form a node on the transmission network and will constitute Strategic Infrastructure.
- 8.5. In terms of matters which might influence the decision of the Board I note that there is potential for indirect effects, interactions and cumulative impacts which would be relevant for consideration in any Planning and Environmental Report and under AA Screening and/or NIS reports.
- 8.6. In conclusion, I consider that the proposed 110kV on-site 'Loop-In/Loop Out' substation as described in the submissions and drawings constitutes strategic infrastructure coming within the scope of section 182A of the Planning and Development Act 2000, as amended, necessitating an application directly to the Board.

9.0 Recommendation

- 9.1. I recommend that the prospective applicant Harmony Solar Kerry Limited be notified that the proposed development consisting of a 110 kV substation and the associated grid connection works as described in the plans, particulars and correspondence documents received by the Board on the 29th August 2022 and 02nd November 2022 falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board.

Máire Daly

Planning Inspector

25th November 2022

Appendix 1

Prescribed Bodies

The following is a schedule of prescribed bodies considered relevant in this instance for the purpose of section 182(A) (b)(4) of the Act.

- Minister of Housing, Local Government and Heritage.
- Minister for Environment, Climate and Communications.
- Kerry County Council
- Transport Infrastructure Ireland
- Fáilte Ireland
- An Taisce
- Heritage Council
- Inland Fisheries Ireland
- Commission of Regulation of Utilities, Water and Energy
- Health Service Executive
- Irish water