



An
Bord
Pleanála

Inspector's Report

ABP-314595-22

Development	110kV 'Loop-in/Loop-out' substation.
Location	Within the townland of Clonardis, Co. Westmeath.
Planning Authority	Westmeath County Council
Prospective Applicant	Harmony Solar Ireland Mullingar Limited
Type of Application	Pre-application under section 182E of the Planning and Development Act 2000, as amended.
Date of Site Inspection	01 st November 2022
Inspector	Máire Daly

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1.0 Introduction

- 1.1. On 9th September 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 (P&DA), 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 a list of recommended Prescribed Bodies that should be forwarded copies of the application (see Appendix 1).

2.0 Site Location and Description

- 2.1. The subject site which is c. 5 ha in area, is located in the townland of Clondaris c. 5km west of Mullingar in Co. Westmeath. The site is c. 1km south of the R393 and is accessed via the L5802 local road.
- 2.2. The proposed substation site is located down a narrow local road which in turn changes into a cul de sac and narrow farm laneway. The site is located remote from the view of any public road or nearby dwellings, with the closest dwelling house c.350m to the east. The proposed substation site comprises a single agricultural field which is bound by hedgerow on the southwestern, north-eastern and southern sides. The Mullingar – Lanesboro overhead (OH) 110kV electrical line traverses the site and travels in an east west direction to the northeast of the site.
- 2.3. The prospective applicant states that the current request is for the 110kV substation and ancillary development only and that a separate planning application has been

consented for the solar farm pursuant to section 34 of the Planning and Development Act 2000, as amended (See Section 4.0 of this report for more details). The connection to the OH line from the proposed substation will be by underground cable (950m) laid within the site boundary of the consented solar farm and will travel through agricultural fields to the east of the proposed substation site where existing mature deciduous treelines exist along the western portion of the proposed cable path.

- 2.4. Adjacent land uses are predominantly agricultural in nature with internal boundaries comprising hedgerows and tree lines typical to the area. Several field drains were noted within the area, though not within the substation site. The surrounding area is rural in character; comprising isolated one-off dwellings with farmsteads and concentrations of single dwellings dispersed along the local road network. A cluster of farm buildings is located to the immediate south of the proposed substation site.

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 permitted ground mounted Solar PV Array on a site of c.46.3 hectares within the adjoining and nearby townlands of Clonards and Slane More Townlands, Walshestown (ABP Ref. 301116-18, as subsequently amended under Westmeath County Council Planning ref. 206132).

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

- Substation to comprise two separate compounds and buildings - an Eirgrid compound and an independent Power Producer (IPP) compound.
 - Eirgrid substation building (c. 383 sq.m) with pitched roof and overall height of 8.7m.
 - IPP switchgear room to consist of pitched roof structure of c. 6.9m in height and c. 192sq.m in area.
- 2.6m palisade fence to surround substation compound.
- Eirgrid specification lightning masts – typically c. 18m monopoles.

- 5m wide access road to include drainage – access road is to be along previously consented access roads within the consented solar farm and onto the existing public road.
- Underground cabling (measuring approx. 950m) to provide connection between the proposed substation and the existing end masts on the existing 110kV line. Two separate trenches required, one for the 'loop in' element and another for the 'loop out' element.
- A section of existing 110kV line and pole sets which traverse the solar farm site are to be removed. Two new Line-Cable Interface Masts (LCIMs) or End Masts measuring 16m in height will be installed along the 110kV line at 'loop in' and 'loop out' positions. The end masts will require reinforced concrete foundations.

4.0 Planning History

4.1. Subject Site and Immediate Surrounds

- **Westmeath County Council (WCC) – Planning Ref: 206132** – Permission granted in September 2020 for amendment of the design of the approved development (Westmeath County Council Planning Reg. Ref. 17/6239 & An Bord Pleanála Reg, Ref. PL25M.301116) Amendments proposed are optimised Solar PV Panel configuration located within the same areas of the site as previously permitted with the exception of a reduced buffer distance under the existing 110Kv lines from c.56m to c.46 m to comprise up to 252000 square meters of solar panels to allow for solar panel array height increase from up to 2.8m to 3.2m. Modifications and enlargement to the onsite substation and substation compound. The substation will increase in size from c.55 m² as permitted to c.150 m² and the substation compound will increase in size from c.700 m² as permitted to c.1081 m². Omission of 2 no. inverter/transformer hard standing areas and minor changes of position of hardstanding from the permitted solar development to allow for a total of 10 hardstanding areas which will provide the base for 20 no. inverter and transformer units housed in sound pressure containers. Permission also

sought to amend the life span of the consented development from 25 years to 30 years.

- **ABP-301116-18 (WCC Ref: 176239)** – Permission granted in February 2019 for the development of a ground mounted solar photovoltaic (PV) farm consisting of the following; up to an area of 139,520 m² of solar panels on ground mounted steel frames within a site area of 46.3 hectares; a fenced 38kV electricity substation compound to include 1 no. electricity control building and hardstands for ancillary electrical equipment; 12 no. inverter/transformer stations; underground cable and ducts; internal access tracks and hardstanding areas; boundary security fence; CCTV and all associated site services and works, 2 no. new site access points from the public road, one for construction/decommissioning traffic purposes only, and one for operational traffic. Permission is sought for a period of 10 years.
- **WCC Planning Ref: 186215** – Permission granted in September 2018 for 5 year permission for the construction of an Energy Storage Facility comprising battery containers and associated infrastructure including combined power conversion systems, grid connection compound, electrical substation, transformers and grid compliance equipment, temporary construction compound, ducting and electrical cabling, fencing, CCTV cameras, landscaping and access tracks.
- **WCC Planning Ref: 176224** – Permission granted in February 2018 for 10 year permission, the development will consist of a proposed 4.392MW extension to a planning approval solar farm (ref 17/6028). The proposed extension will comprise of photovoltaic panels on ground mounted frames with associated infrastructure including 2 no inverter cabins, temporary construction compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks.
- **WCC Planning Ref: 176028** – Permission granted in May 2017 for 10 year permission which will consist of a solar farm with an export capacity of 12.458mw comprising photovoltaic panels on ground mounted frames with associated infrastructure including 7 no. inverter cabins, 1 no. control building, 1 no. customer cabin, 1 no. DNO substation, temporary construction

compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks.

5.0 Prospective Applicant's Case

- 5.1. The applicant highlights in their submission that the associated solar farm has already received consent from Westmeath County Council and does not form part of the subject application of the 110kV substation.
- 5.2. The prospective applicant is of the opinion that the proposed development for a 110kV substation and associated infrastructure 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 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.
- 5.4. The prospective applicant highlights that the proposed development is associated with the consented development of a solar farm in surrounding lands and that it is considered that the proposed substation and associated solar farm will contribute substantially to the fulfilment of the objectives of the National Planning Framework (NPF), Climate Action Plan (2021) and the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019-2031. In summary the prospective applicant states that the proposed 110kV will facilitate the connection to the national grid of the solar farm and that the substation represents a strengthening of the national transmission network to facilitate renewable energy that will materially contribute to national energy targets and assist in the achievement of objectives of the NPF and RSES.
- 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.

- 5.6. The prospective applicant also outlines that the proposed substation already has a grid connection agreement with EirGrid, signed in January 2022.
- 5.7. 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 the need for the development. They also provided a legislative overview and details of precedent decisions.
- 6.3. The prospective applicant stated that EirGrid have a requirement for a 110kV substation node in the area and that the proposed substation has a grid connection agreement with Eirgrid. The prospective applicant proposes to develop a 110kV substation within the Clonardis solar farm site and to loop into the existing Mullingar-Lanesborough 110kV overhead line. The prospective applicant stated that various assessments, including archaeological, ecological, and drainage and flooding assessments had been carried out and submitted as part of the planning application for the permitted solar farm and 38kV substation. A Planning and Environmental Report is nearing completion for the subject 110kV substation project. It was stated that no notable constraints have been identified.
- 6.4. The Board's representatives advised that given the proximity of designated sites and potential hydrological connections that any potential connections to these sites should be addressed in the Environmental Report. They also advised that given the site's proximity to the Lough Owel designated high amenity area that landscape and visual effects be assessed adequately, regarding the construction of any pylons or endmasts etc.

6.5. 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 separately consented solar farm the adjacent site (consented pursuant to Section 34 of the PDA 2000, as amended).
- 8.2. 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 110kV substation will facilitate electrical connection of the associated consented solar farm and will enhance the national transmission network and make a material contribution to the achievement of national and regional renewable energy and climate change targets as outline din the NPF and the RSES.
- 8.3. I note that a section of existing 110kV line and pole sets which traverse the solar farm site are to be removed and two new Line-Cable Interface Masts (LCIMs) or End Masts with reinforced concrete foundations will be installed along the 110kV line at ‘loop in’ and ‘loop out’ positions. The new substation and associated infrastructure will enable the electricity generated by the solar farm to be stepped up to a voltage of

110kV for direct transmission to the national grid. The new substation and associated infrastructure will therefore form part of the existing transmission system and will form a new node on the existing Mullingar - Lanesborough 110kV circuit and therefore part of the transmission grid.

- 8.4. I note the similarity between this case and other proposals put before the Board for pre-application consultation under section 182E of the Planning and Development Act, 2000, as amended. In these cases, the Board determined that the provision of a new 110kV substation and associated overground/underground cabling which is to be looped into the existing transmission system constitutes strategic infrastructure.
- 8.5. 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 Ireland Mullingar 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 9th September 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

28th 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.
- Westmeath 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