

Inspector's Report ABP-320535-24

Development

110k/38/20kV electrical substation and

associated development.

Location

In the townland of Walterstown,

Dunboyne, County Meath.

Planning Authority

Meath County Council

Type of Application

Pre-application consultation under

section 182E of the Planning and

Development Act 2000, as amended

Prospective Applicant

Electricity Supply Board (ESB)

Inspector

Heidi Thorsdalen

1.0 Introduction

- 1.1. The Board received a request on 12th August 2024 from the prospective applicant, Electricity Supply Board (ESB), to enter into pre-application consultations under Section 182E of the Planning and Development Act, 2000, as amended ('2000 Act'), in relation to a 110/38/20 kV/MV electrical substation and associated development on lands situated in the townland of Walterstown, approximately 3 km west of Hansfield Rail station, Dunboyne, County Meath.
- 1.2. The primary purpose of the pre-application consultation is to address the issue of whether or not the proposed development constitutes strategic infrastructure for the purposes of the 2000 Act, as amended.
- 1.3. A pre-application meeting was not requested, and a meeting was not held. This is recorded on file.
- 1.4. This report provides an overview of the proposed development, as well as details of legislative provisions, and relevant precedent. My recommendation is that the 110kV high voltage lines connecting into the existing Dunfirth-Kinnegad-Rinawade 110kV circuits, the 110kV transformer and substation, and associated 38/20 kV/MV transformer, substation and distribution apparatus, constitute strategic infrastructure development (SID).

2.0 Site Location & Description

- 2.1. The subject site is located in the townland of Walterstown, approximately 2.8 km south of Dunboyne Town Centre and approximately 3 km west of Hansfield Rail Station. Access to the site is via the R149 from the east and the south, the R157 from the northwest and local access roads.
- 2.2. The site comprises fields currently in use as pastureland. These fields are defined by mature trees and hedgerows. The existing Dunfirth-Kinnegad-Rinawade 110kv overhead line (OHL) and pylons traverse the site and define its southwestern boundary. A narrow local public road (Jarretstown Lane) runs along the northeastern boundary of the site, and provides access to the site, surrounding residential dwellings and agricultural uses.

2.3. The proposed substation compound is located between the Dunfirth-Kinnegad-Rinawade 110kv OHL and the local road. The substation layout is not located parallel to the local road but at an angle, and its setback from the local road ranges from c. 25 m to c. 45 m.

3.0 Proposed Development

- 3.1. The proposed development comprises of a 110/38/20 kV/MV electrical substation within a compound of c. 5,560 m² and the provision of access track from a new site entrance on the local public road.
- 3.2. The proposed substation consists of:
 - A 110 kV Gas Insulated Switchgear (GIS) building with eight 110 kV bays (c. 700 m², 12 m in height).
 - A 38 / 20 kV GIS building with ten 38 kV bays and eighteen MV (20 kV) bays
 (c. 235 m², 7 m in height).
 - Two 110 / 38 kV TSO transformers and two 38 / 20 kV DSO transformers, in transformers bays (c. 5 m high).
 - Three Arc Suppression Coil transformers in transformer bays (c. 4 m high).
- 3.3. The proposed substation is to be looped into the existing transmission Dunfirth-Kinnegad-Rinawade 110kV circuits. It is proposed to remove one existing 110kV Overhead line timber poleset (c. 20 m in height) and install two new 110 kV double circuit overhead line / cable interface steel lattice end masts at c. 16 m in height. The existing 110 kV OHL will be diverted to/from these new end masts, the approximate distance of proposed OHL rerouting is noted as 260 m. Approximately 150 m of 110 kV underground cable is proposed to be installed connecting the new masts and the 110 kV transformer within the 110 kV substation.
- 3.4. The proposed development also includes for all associated and ancillary outdoor electrical equipment and other apparatus, and all associated site development works including car parking area, lighting, telecommunications, fencing, landscaping, site services including drainage and all other ancillary works.

- 3.5. The prospective applicant outlines the following key driving factors for the proposed development:
 - Adding capacity and improve distribution security of supply for the surrounding area, primarily in relation to the proposed DART + West electrification programme (ABP ref. 314232-22) and with the new 110/38 kV feeding eight of the 38 kV DART stations.
 - Existing Coolmine and Leixlip 38 kV stations to be transferred to the proposed substation from the Finglas rural Loop and the Griffinrath BSP, respectively.
 - Possible offloads Macetown and Monecooley, both 20 kV, via the proposed MV busbar.
 - Potential to cater for new loads in the area developing between Leixlip and Coolmine.

4.0 Planning History

4.1. I am not aware of any previous planning records pertaining to the site.

5.0 Prospective Applicant's Case

- 5.1. The prospective applicant's case, as outlined in the cover letter submitted can be summarised as follows:
 - Purpose of the proposed substation is to take power from the passing 110 kV transmission line and divert this into the lower voltage 38 kV network so that it can be distributed to customers. The proposed substation will form part of both the transmission and distribution network.
 - Having regard to precedent cases e.g. ABP refs. 317654-23 and 314739-22, it
 is considered that the proposed development falls within the scope of Section
 182A of the Act and would be deemed to be strategic infrastructure
 development.

6.0 Relevant Precedents

6.1. The prospective applicant cites a couple of cases where the Board determined that similar development comprised SID under s182A. Those cases, and others that I consider to be of relevance, include:

ABP Ref.	Location	Development Description	Decision Date	Decision
319735-24	Donore Rd, Drogheda	110 kV / 38 kV/MV electrical substation	16/08/24	SID
317654-23	Fosterstown, Meath	110kV/20kV distribution station	25/10/23	SID
315476-23	Coolshamroge, Ennis	110 kV substation to feed into Drumline-Ennis 110 kV OHL circuit	06/06/23	SID
314739-22	Belinstown, Swords	110 kV substation	18/05/23	SID

7.0 Legislative provisions

7.1 Planning and Development Act 2000, as amended

7.1. Section 2(1) of the 2000 Act, as amended, defines 'strategic infrastructure' as including, *inter alia*:

"any proposed development referred to in section 182A(1)"

- 7.2. Under subsection 182A(1) of the 2000 Act, as amended, where a person (the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, the undertaker shall prepare, or cause to be prepared, an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly.
- 7.3. Subsection 182A(9) states that:
 - "...'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."

7.4. Section 182E(1) provides that a prospective applicant who proposes to apply for approval under section 182B or 182D shall, before making the application, enter into consultations with the Board in relation to the proposed development.

8.1 Electricity Regulation Act 1999, as Amended

- 7.5. Section 2(1) of the Electricity Regulation Act 1999, as amended ('1999 Act'), sets out the following definitions:
 - '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, from one substation 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."
 - 'Electric line': "...has the meaning assigned to it by section 4(1) of the ESB (Electronic Communications Networks) Act 2014."

The definition set out in s.4(1) of the 2014 Act is as follows:

- "...any line which is used solely or amongst other things for carrying electricity for any purpose and as including –
- (a) any support for any such line, that is to say, any structure, pole or other thing in, on, by or from which any such line may be supported, carried or suspended,
- (b) any apparatus connected to or associated with any such line for the purpose of carrying electricity or electronic communications services, whether such apparatus is owned by the Board or by any company referred to in section 2 or by a company which has been provided access or services referred to in section 3, or
- (c) any wire, cable, tube, pipe or similar thing (including its casing or coating) which is used for the purpose of carrying electricity or electronic communications services and which surrounds or supports or is

- surrounded or supported by, or is installed in close proximity to, or is supported, carried or suspended in association with, any such line."
- '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 a consumer."
- '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 switchgear and which is used for conveying electricity to final customers".

8.0 Consultation Meeting

8.1. No meeting was requested by the applicant, and none held, record attached to the file.

9.0 Assessment

- 9.1. The definition of 'strategic infrastructure' includes development comprising or for the purposes of electricity transmission, with 'transmission' defined as either:
 - The transport of electricity by means of a high voltage line of 110 kV or more, or an interconnector.
 - The transport of electricity by means of a transmission system (a system of high voltage lines and electric plant used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers, including interconnectors but excluding distribution system lines).
- 9.2. The proposed development is outlined in Section 3.0 above. It comprises a new 110/38/20kV/MV electrical substation which will take power from the existing

Dunfirth-Kinnegad-Rinawade 110kV OHL. The proposed connection into existing circuits is via a diversion of existing overhead lines to two new 110 kV end masts, and 110 kV underground cabling between end masts and the 110 kV transformer located within the 110 kV substation. The proposed 110 kV transformer allows the existing 110 kV line to be routed in and out of the transformer whilst continuing to function as a continuous 110 kV line. Electricity routed out of the transformer will then be transformed down to 38 kV by the 38 kV equipment and distributed to the 38 kV network.

- 9.3. Having regard to the broader definition of transmission within the 2000 Act, as amended, I am satisfied that the proposed development entails the transport of electricity by means of 110 kV high voltage lines (both by rerouting of overhead lines and underground cables). The 2000 Act, as amended, does not specifically state a threshold for a substation, which can be considered electrical plant under the provision of the Electricity Act, however, given the 110 kV cables will be looped in and out via the proposed substation I am satisfied that the proposed substation falls within the scope of transmission. I note the latter is consistent with recent determinations by the Board. In this regard, I note the prospective applicant confirms that the proposed substation will form part of both the transmission and distribution network.
- 9.4. I further consider the 38/20 kV/MV substation and transformer apparatus to be interconnected with the 110 kV infrastructure and as such, should be considered within any future planning application. The same is also applicable to all other associated electrical equipment and development works proposed by the applicant in order to install and operate the proposed 110/38/20kV/MV electrical substation.
- 9.5. In conclusion, therefore, I recommend that the Board issue a determination that the proposed 110/38/20kV/MV electrical substation does fall within the scope of section 182A of the 2000 Act, as amended, and that a planning application should be made directly to the Board.
- 9.6. A list of prescribed bodies is set out in Appendix 1.

10.0 Recommendation

10.1. I recommend that the prospective applicant, ESB, be informed that the proposed 110/38/20kV/MV electrical substation on lands situated in the townland of Walterstown, Dunboyne, County Meath, as set out in the plans and particulars received by An Bord Pleanála on the 12th August 2024 falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should therefore be made directly to the Board.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Heidi Thorsdalen

Senior Planning Inspector

Date: 8th October 2024

Appendix 1: Prescribed Bodies

The following is a list of prescribed bodies considered relevant by the Board:

- Minister for Housing, Local Government and Heritage
- Minister for the Environment, Climate and Communications
- Meath County Council
- Kildare County Council
- · Commission for the Regulation of Utilities
- Transport Infrastructure Ireland
- Uisce Éireann
- Inland Fisheries Ireland
- Office of Public Works
- An Taisce
- Heritage Council
- An Chomhairle Ealaíon
- Fáilte Ireland

Further notifications should also be made, where deemed appropriate.