



An  
Bord  
Pleanála

## Inspector's Report

**ABP-313964-22**

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<b>Development</b>	Proposed redevelopment of the existing Maynooth 220kV / 110kV electrical substation
<b>Location</b>	In the townland of Taghadoe and Windgates, Co. Kildare
<b>Planning Authority</b>	Kildare Co. Co.
<b>Prospective Applicant(s)</b>	Eirgrid plc.
<b>Type of Application</b>	Pre-Application Consultation under Section 182E of the Planning & Development Act 2000, as amended
<b>Inspector</b>	Conor McGrath

## 1.0 Introduction

The Board received a request on 1<sup>st</sup> July 2022 from EirGrid plc. to enter into a pre-application consultation under section 182E of the Planning and Development Act 2000, as amended, in relation to the redevelopment of the existing Maynooth 220kV / 110kv electrical substation.

This report provides an overview of the proposed development, relevant precedents and legislative provisions and recommends that the proposed development does not constitute strategic infrastructure. A pre-application consultation meeting was not considered necessary in this instance.

## 2.0 Site Location and Description

The existing Maynooth 220 /110 kV Station is located in the townland of Taghadoe and Windgates Co. Kildare, approx. 4km west of Celbridge and 3.5km south of Maynooth. This large substation site is bounded by the R406 to the east and local road (L5037) to the north, which local road provides vehicular access to the station. Surrounding lands are in agricultural use, with some rural housing in the area. Lands to the south of the existing compound are generally level and bounded by mature hedgerows and trees.

## 3.0 Proposed Development

The proposal relates to the redevelopment of the existing Maynooth 220 / 110 kV Electrical Substation, including the replacement of the existing 220/110kV Air Insulated Switchgear (AIS) substation with a 220/110kV Gas Insulated Switchgear (GIS) substation. The existing compound will be extended to the south.

The proposed development will consist of:

- 1) A 220kV Gas Insulated Switchgear (GIS) 16 Bay Building, south of the existing station compound, approx. 1,500-sq.m. in area and approx. 15 m high;
- 2) A 110kV Gas Insulated Switchgear (GIS) 16 Bay Building, south of the existing station compound approx. 1,110-sq.m. in area and approx. 12.5 metres high;

- 3) Associated outdoor electrical equipment, including 4 no. transformers in transformer bays (approximately 12 m high) located between the 220 kV and 110 kV GIS Building;
- 4) The diversion of all existing circuits from the existing Air Insulated Switchgear (AIS) Station into the GIS stations and the decommissioning of the existing Air Insulated Switchgear (AIS) Station;
  - a. installation of approx. 6 no. 220kV and 6 no. 110 kV cable sealing ends underneath conductor lead-ins and adjacent to existing gantry locations in the existing AIS substation.
  - b. installation of approx. 2 no. 220kV and 3 no. 110kV line/cable interface towers to replace existing end masts within the existing Maynooth 220kV substation compound, including routing of 220kV and 110kV cable circuits from interface masts to GIS Buildings.
- 5) Two number lightning protection masts (approx. 22 m high);
- 6) Associated compound and hardstanding, internal access tracks, boundary treatment including perimeter fencing,
- 7) All ancillary site development works including site preparation works, site clearance and levelling; hardstanding, internal access tracks and temporary construction compound; underground cabling and earth grid, surface water drainage network including a soakaway; fencing and gates; lighting poles and landscaping as required to facilitate the development.

It is indicated that the proposed development will be subject to detailed screening assessments for Appropriate Assessment (AA) and Environmental Impact Assessment (EIA), which will be submitted with any planning application.

#### 4.0 **Case made by Prospective Applicant**

The prospective applicants make the following points in respect of the proposed development:

- Maynooth 220/110 kV Substation is an existing outdoor AIS, whose function is to interconnect eight 220kV lines and seven 110kV lines enabling power to be distributed to and from the Dublin area.
- The reliability of the station is crucial for the integrity of the entire transmission system.
- Large-scale asset replacement works are required on multiple items of 220 kV and 110 kV equipment. Potential improvements in operational flexibility and security of supply have also been identified.
- There is a need to address the ability of existing station equipment to accommodate mechanical forces experienced during short-circuits.
- The preferred solution to the immediate need to refurbish / redevelop the substation, is to deliver a 220/110kV GIS on this 10ac greenfield site adjacent to the southern boundary of the existing AIS station.
- While of considerable benefit to the transmission network, from a planning perspective, this is essentially an enhancement of existing substation infrastructure.
- In a number of previous cases, the Board have determined that a GIS building, which is an enhancement of established substation infrastructure, did not fall within the scope of section 182A.
- The most relevant precedent is ABP ref. VC0063, relating to the redevelopment of Killonan 220/110 kV Station in Co. Limerick.
- Given the nature, scale and function of the proposed development and critically, its relationship to the existing substation, the proposed development does not comprise SID having regard to Section 182A of the Planning and Development Act 2000, as amended.
- Nor does it meet any other provisions for Strategic Infrastructure Development set out in Section 37(A) (2) of the Act of 2000, as amended.

## 5.0 Relevant Precedents

The prospective applicants cite a number of previous cases wherein the Board determined that proposed developments did not comprise strategic infrastructure development under s.182A, including:

- **VC0040:** Redevelopment of the existing 220kV Finglas Substation, including construction of an indoor 110kV station within boundary of the existing Finglas 220kV station, transfer of circuits and decommissioning of old substation.
- **VC0055:** Redevelopment of the existing 400kV Moneypoint Substation, involving construction of new 400kV, 220kV and 110kV GIS buildings, transfer of circuits from the existing 400kV building to the new 400kV GIS building and from the existing 220kV and 110kV AIS equipment to the new 220kV and 110kV GIS buildings, decommissioning of existing GIS and AIS equipment.
- **VC0061:** Redevelopment of the existing 110kV Ardnacrusha Electrical Substation, consisting of replacement of outdoor 110kV AIS equipment with indoor 110kV GIS equipment, transfer of circuits from existing AIS 110kV substation to the new GIS substation, and decommissioning of existing substation.
- **VC0063:** Redevelopment of Killonan 220/110 kV Station in Co. Limerick, including construction of a new 110kV GIS substation building and a new 220kV GIS substation building, installation of new GIS and associated equipment, transfer of circuits from existing 220/110kV AIS station to the new 220/110kV buildings, and decommissioning of existing equipment.
- **VC0070:** Installation of two new reactors at existing Poolbeg 220/110 kV Electrical Substation.
- **VC0101:** Redevelopment of the existing 220 kV Inchicore Electrical Substation, including new GIS building to north of existing GIS building, new control room, associated works to accommodate transfer of switchgear equipment and existing cable relocation.
- **VC0109:** New reactor at the existing Knockanure 220 kV Electrical Substation, (approx. 10m. high, with a footprint of 25m x 20m), to the east of the existing substation buildings, extension to compound fence, connection to existing 220kV GIS building via underground cables and associated installation of control and protection systems.
- **VC0110:** Redevelopment of the existing 110 kV Galway Electrical Substation at Ballybrit, including new 110kV gas insulated switchgear (GIS) building within existing compound, new line/cable interface masts, alterations to existing site entrance and associated works, decommissioning of the existing AIS substation.

- **ABP-300928-18:** Redevelopment of the existing 110 kV Kilbarry Electrical Substation comprising new gas insulated switchgear (GIS) electrical substation within the existing compound, transfer of 4 no. existing 110kV circuits from the existing AIS substation to the proposed GIS substation, demolition of existing unused control room.
- **ABP-301174-18:** Installation of new STATCOM devices at three existing electrical substation sites. The main components include transformer connecting to the transmission grid, reactors and capacitors, outdoor cooling banks/ assembly, control building and compound for the above.
- **ABP-303148-18:** Installation of series capacitors at three existing 400 kV substations, with total height of approx. 10m. and overall footprint of approx. 1080 – 2400-sq.m., lightning monopoles, 400kv u/g or OH connection including circuit breaker equipment (up to 10m.), extension to existing compound and palisade fencing and associated site and ancillary development including provision / replacement of equipment, laying or replacement of cables and diversion of existing cables, drainage, landscaping and access roads.

## 6.0 Legislative Provisions

Section 2(1) of the Planning and Development Act 2000, as amended defines 'strategic infrastructure' as including, inter alia: "(d) *any proposed development referred to in section 182A(1)*"

Section 182A(1) of the Act provides that, 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.

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.”*

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.

Section 2(1) of the Electricity Regulation Act 1999, as amended 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 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” means 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.*

## **7.0 Assessment**

As noted above, 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).

Based on this statutory definition and the information contained in the prospective applicant's request, I am satisfied that the existing Maynooth 220kV / 110kv electrical substation can be regarded as part of the electricity transmission system for the purposes of the 2000 Act. In this regard, I also note that the station is identified on the Transmission System map provided on the EirGrid website<sup>1</sup>.

The details provided with the request are somewhat limited, not including detailed drawings or plans in respect of the proposed development, although the written description are considered to adequately describe the nature and scope of development proposed. Having regard to these descriptions and the nature of the proposed works which relate to the redevelopment of an existing substation site, I consider that there is adequate information available to the Board to make a determination on this request. I do not consider that a consultation meeting is necessary in this instance.

The proposed development is described as the redevelopment / refurbishment of the existing Maynooth substation, including the provision of new Gas Insulated Switchgear and decommissioning of existing Air Insulated Switchgear station. The existing substation is a strategic site on the transmission network, however, the proposed development, would not give rise to any fundamental change in the function of existing infrastructure at this location, nor would there be any material deviation to the routes of established circuits. While the existing compound will be extended to the south, it is not considered that any significant visual or landscape impacts will arise.

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<sup>1</sup> [Z: . Transmission Systems Engineering\Dan Askew\Working Folder\Transmission Map 2020\Final\Transmission Map V0.2 A3 \(1\) \(eirgridgroup.com\)](Z: . Transmission Systems Engineering\Dan Askew\Working Folder\Transmission Map 2020\Final\Transmission Map V0.2 A3 (1) (eirgridgroup.com))



As outlined above, the Board has previously determined a considerable number of requests for pre-application consultation in relation to proposed improvement / refurbishment / upgrade works to existing electrical infrastructure. In particular, the prospective applicants refer to previous case ref. VC0063 which related to a similar development, including new 110kV and 220kV GIS substation buildings and decommissioning of existing equipment. The Board concluded in this, and other similar cases, that the development did not fall within the scope of section 182A of the 2000 Act, as amended, and consequently that planning applications should be made in the first instance to the local planning authority.

Having regard to the limited nature and scale of the proposed development, the fact that it relates to existing substation and transmission infrastructure, and noting previous determinations by the Board in respect of similar requests for pre-application consultation, and the stated purpose of the 2006 Act as set out in its long title; and to the criteria for strategic infrastructure development set out in section 37A(2), I conclude that the proposed development would not fall within the scope of section 182A of the Planning and Development Act 2000, as amended, necessitating the making of an application directly to the Board.

## 8.0 Recommendation

I recommend that the prospective applicant, EirGrid plc., be informed that the proposed development, consisting of the redevelopment of the existing Maynooth 220kV / 110kv electrical substation, in the townland of Taghadoe and Windgates, Co. Kildare as set out in the plans and particulars received by An Bord Pleanála on the 01/07/2022, does not fall within the scope of section 182A of the Planning and Development Act 2000, as amended, and that planning applications should be made in the first instance to the relevant planning authorities

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Conor McGrath SPI

12/07/2022