



An
Bord
Pleanála

Inspector's Report ABP-321168-24

Development

Redevelopment of the existing Arklow
220/110kV Electrical Substation.

Location

Located in the townland of
Killiniskyduff, Arklow, Co Wicklow.

Prospective Applicant(s)

EirGrid Plc.

Type of Application

Pre-Application consultation under
182E the Planning and Development
Act, as amended.

Planning Authority

Wicklow County Council

Date of Site Inspection

15th November 2024

Inspector

Jimmy Green

1.0 Overview

- 1.1. On the 1st of November 2024 the Board received a request to enter into pre-application consultations under section 182E of the Planning and Development Act 2000 (as amended) ("the Planning Act") in relation to the Redevelopment of the existing Arklow 220/110kV Electrical Substation in the townland of Killiniskyduff, Arklow, Co. Wicklow, by EirGrid plc. ("the Prospective Applicant"), the Oval, 160 Shelbourne Road, Ballsbridge, Dublin 4 (D04 FW28). The Prospective Applicant is the licenced Transmission System Operator (TSO) for Ireland.
- 1.2. A meeting was not held but a record of the written consultations is attached to the file. The consultation documentation includes a detailed indicative layout as well as a full description of the nature of the proposed development (i.e. an upgrade and expansion of an existing, established substation by Eirgrid). The prospective applicant has also highlighted the importance of this project to cater for known future connection needs and urged expediting consideration of this matter in their submission, noting that they are available to meet '...should this be required ...'. While noting that it is a matter for the Board to consider the prospective applicant states that its opinion is that the proposed development does not comprise strategic infrastructure development.

2.0 Site Location:

- 2.1 The site of the subject development is located approximately 600m south east of the M11 Junction 20, along the R772 regional road to Arklow, and approximately 1.8km north east of Arklow town centre. The proposed development site constitutes the existing 220kV Arklow Substation and the agricultural lands immediately to its south. The existing substation lies at the confluence of a number of existing 220kV and 110kV overhead lines, and is a typical Air Insulated Switchgear (AIS) construction, with a range of outdoor electrical plant, equipment, and some buildings in place. The existing substation compound is well established and set within a typical palisade security fence set back slightly off the R772 which runs along its eastern frontage. The existing substation has three separate gated access points onto the regional road and is otherwise buffered from the regional road by a strip of mature planting/hedgerow. The land drops off along the western side of the substation as it

slopes down as a wooded/scrubby embankment towards the Templerainy stream. To the north of the substation there are two single storey dwellings which each have vehicular accesses directly onto the regional road.

- 2.2 The land to the immediate south of the existing substation is currently under agricultural use with the R772 running along its eastern frontage and the Templerainy stream running to the west. The agricultural field is bordered by existing mature planting, trees, and hedgerow, is flat and at predominantly the same elevation as the regional road in its eastern portion and falls in level to the west towards the Templerainy stream. Although the site is proximate to Arklow (being within the LAP area boundary with the existing substation being zoned as 'Public Utility' and the agricultural field portion of the site zoned as 'Existing Residential') the R772 is the LAP boundary at this location, with the lands to the east (on opposite side to the subject site) being unzoned/outside the LAP and accordingly there is a rural character and settlement pattern in this immediate area before entering the more built up parts of Arklow to the south.

3.0 Description of Proposal:

- 3.1 The details of the proposed development are described in the documentation provided by the Prospective Applicant and consists of the modification, redevelopment and upgrading of the existing Arklow 220/110kV substation and includes the following works:
- A 220 kV Gas Insulated Switchgear (GIS) 16 bay building (c. 15m high and 1,500m² in area) and a 110 kV GIS 16 bay building (c. 12.5m high with an area of 1,110m²) immediately south of the existing station compound;
 - Associated outdoor electrical equipment, including 4 no. transformers in transformer bays (c. 12 m high) located between the two proposed GIS buildings;
 - Diversion of all existing circuits from the existing AIS substation into the GIS stations and the decommissioning of the existing AIS Station;

- Installation of approximately 6 no. 220 kV and 6 no. 110 kV cable sealing ends underneath conductor lead-ins and adjacent to existing gantry locations in the existing AIS substation.
- Installation of 220 kV and 110kV line/cable interface towers to replace existing end masts within the existing substation compound, including routing of 220 kV and 110 kV cable circuits from interface masts to GIS Buildings.
- Two lightning protection masts (c. 22 m high);
- Provision of associated compound and hardstanding, internal access tracks, boundary treatment including perimeter fencing and all ancillary site development works including hardstanding, internal access tracks, temporary construction compound; underground cabling, surface water drainage network, fencing and gates, lighting poles and landscaping.

3.2 Some of the proposed works will occur within the existing substation compound, however, a significant expansion of the existing compound into the agricultural field to the south is proposed to accommodate the new indoor 220kV and 110kV GIS buildings, compound area and associated works and plant. This expansion area is situated immediately adjacent to the existing substation to the south and the prospective applicant ('EirGrid') has confirmed that it does not have any beneficial interest in the lands but that the proposed transmission infrastructure will be constructed by the ESB pursuant to its statutory powers.

3.3 In terms of the need for the proposed development the prospective applicant has stated that Arklow 220 / 110kV substation is a critical transmission node along the coastal corridor between Dublin and the southeast, which is nearing its end of life and requires comprehensive refurbishment and redevelopment. Furthermore, it requires expansion as it has insufficient capacity for known future connection needs. The preferred design solution for addressing the current transmission system needs is to deliver the new 220 / 110kV GIS upgrades in the greenfield site to the south of the existing substation as this will not require any changes to the routes of existing lines and it will free up space within the existing substation site for future development at transmission or distribution voltages.

4.6 Planning History.

- 4.1 There is no relevant recent history in the immediate vicinity of the proposed development site in relation to the consideration of whether any particular projects constituted SID or otherwise, however, there have been previous applications in the vicinity of note which include:
- **ABP – 312936-22:** Permission granted by the Board in November 2023 for the development of a 110kV substation and associated compound and ancillary equipment to facilitate the connection of Ballinclea Lower Solar Farm to the electricity transmission network. This substation is located c 1.1km north on the opposite side of the M11 in the site of a solar farm, however, the underground cable connects to the national grid at the site of the Arklow substation.
 - **ABP-305395-19:** Permission refused by the Board in December 2019 for a solar farm on a site of 0.86 hectares, on lands neighbouring the existing Arklow substation to the south and south west due to the proposed development contravening the objectives of the Local Area Plan.
- 4.2 Other applications have been lodged in relation to the substation and alterations required, as well as development proposals in the vicinity over the years, however, none have a bearing on the determination of the Section 182A status of the current proposal before the Board.

5.0 Precedent Decisions:

- 5.1 The prospective applicant cites a considerable number of previous cases where the Board determined that the subject works did not comprise section 182A development. Of the cited cases, I consider the following to be of most relevance in relation to the proposed development:
- **313964:** Proposed redevelopment of the existing Maynooth 220kV/110kV electrical substation. Subject works included the provision of a 220kV GIS 16-bay building c. 1,500m² in area and 15m high, as well as a 110kV 16-bay building 1,110m² and c. 12.5m high in an extension of the compound to the south, diversion of all existing circuits from the existing AIS into the GIS

stations and decommissioning of the existing AIS. These works were considered to not constitute Section 182A works by the Board in July 2022.

- **314111:** Upgrading of the existing Woodland 400/200kV electrical substation, including the installation of additional outdoor AIS apparatus over an approximate 4ha extension to the existing compound as well as a range of other electrical works. These works were considered to not constitute Section 182A works by the Board in August 2022.
- **314505:** Upgrade of existing Belcamp 220kV electrical substation including the provision of a 220kV GIS 16-bay building north of the existing station compound (c. 1,500sqm in area and 16m high) among a range of other electrical plant and associated works. These works were considered to not constitute Section 182A works by the Board in January 2023.
- **314767:** Upgrading of existing Poolbeg 220kV substation, including the provision of a new 220kV GIS building (1,600m² in area and 15m high) on lands to the west of the existing substation among a range of other electrical plant and associated works. These works were considered to not constitute Section 182A works by the Board in May 2023.

5.2 As well as the above I note the following recent similar case:

- **315688-23:** Modification and upgrade of the Letterkenny 110kV substation, including the provision of new indoor 110kV GIS building to the south/southwest of the existing substation and reconfiguration of 110kV circuits, considered not to fall within the provisions of Section 182A by the Board in May 2023.

6.0 Legislative Provisions

6.1 Relevant Provisions of the Planning and Development Act, 2000 (as amended)

6.1.1 Strategic Infrastructure Development is defined within the Planning Act as meaning, inter alia “...(d) *any proposed development referred to in section 182a(1)...*”.

6.1.2 Section 182A(1) of the Planning Act provides that:

“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.”

6.1.3 Section 182A(9) of the Planning Act states:

“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.”

6.2 Relevant Provisions of the Electricity Regulation Act, 1999 (as amended)

6.2.1 Section 2(1) of the Electricity Regulation Act, 1999, as amended (“the Electricity Act”) states the following in terms of defining transmission (note that the original 1999 definition has been updated by both the Energy (Miscellaneous Provisions) Act 2006 and the Maritime Area Planning Act 2021, these updates are highlighted in the square brackets):

“‘Transmission’, [subject to section 2A]¹ in relation to electricity, means the transport of electricity by means of a transmission system [in the State or off-shore, or both]², 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 an-

¹ Energy (Miscellaneous Provisions) Act 2006 inserted this reference. Section 2A of the Electricity Regulation Act refers to Interconnectors.

² Inserted by the Maritime Area Planning Act 2021

other, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board³ 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 is defined as follows in the Electricity Act:

“Distribution,’ in relation to electricity, 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 switch gear and which is used for conveying electricity to final customers.”

‘Electric plant’ is defined as follows in the Electricity Act:

“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.”

7.0 Assessment

7.1 As noted previously, 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,

³ The Electricity Supply Board.

from one substation to another or to or from any interconnector or to final customers, including interconnectors but excluding distribution system lines).

- 7.2 Based on this statutory definition and the information contained in the prospective applicant's request, I am satisfied that the existing Arklow 110/220 kV electrical substation can be regarded as part of the electricity transmission system for the purposes of the Planning Act.
- 7.3 While representing the extension and upgrade of the existing substation (from AIS to GIS), in essence the proposed development comprises the provision of additional upgraded and modern electric plant and infrastructure within and adjacent to an established and operational substation, and proposes the extension and expansion of the substation compound into a new green-field area. The works therefore represent the extension and upgrading of an existing 110/220kV substation. In considering a wide range and number of similar cases previously the Board have concluded that, notwithstanding the fact that the works represent infrastructural improvements to existing 110kV (or higher) rated substations on the transmission system that the provisions of S182A were not applicable.
- 7.4 While I acknowledge all the precedents cited by the prospective applicant, I consider the following cases as being of particular note in relation to this matter.
- **ABP-314361-22:** This pre-application consultation was in relation to an OCGT and its associated grid connection. In discussing the grid connection infrastructure (which was considered in the context of the provisions of S182A of the Planning Act) the inspector's report states the following in relation to the definition of transmission in the Electricity Act: *"The definition of transmission in s.2(1) of the Electricity Regulation Act refers to the transport of electricity by means of a transmission system, which is then elaborated upon further. It is considered that reference to "electric plant" in this definition refers to such plant as is used for the conveyance / transport of electricity, rather than the broader definition of electric plant set out in this act."* The Board determined that the provisions of S182A of the Planning Act were not applicable.
 - **ABP-314111-22:** Related to the upgrading of the existing Woodland 400 / 220kV Electrical Substation, including installation of additional outdoor AIS electrical apparatus, an approximate 4ha extension to the existing compound.

This extension and improvement of an existing facility was considered by the Board not to constitute S182A development. The inspectors report noted that the subject works comprised “...the upgrade and enhancement of the existing substation in order to ensure operational reliability and security of power supply on the transmission network...” and that the works “... are of a type and scale that would reasonably be expected to be undertaken as part of the system operator’s maintenance and upgrade regime.” The Board determined that the provisions of S182A of the Planning Act were not applicable in this case.

- **ABP-313964-22:** Related to the proposed redevelopment of the existing Maynooth 220kV/110kV electrical substation and included the provision of a 220kV GIS, 16 Bay Building (in an extended area south of the existing compound) approx. 1,500m² in area and 12.5m high, all associated outdoor electrical equipment (including 4 no. transformers), diversion of all the existing circuits from the existing AIS station to the GIS station and decommissioning of the AIS station. In considering this proposal the Inspector’s report noted, “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.” The Board determined that the provisions of S182A of the Planning Act were not applicable in this case.
- **ABP 315688-23:** Related to the modification and upgrade of the existing Letterkenny 110kV substation and included the provision of a new 110kV GIS building as well as extending the existing substation compound to the south and south west. The Board determined that the provisions of S182A of the Planning Act were not applicable in this case (January 2023).

7.5 Similar to the above examples the proposed development constitutes modification to, and extension of, an existing substation. While I acknowledge that the existing substation is a strategic node on the transmission network, I note that it is already in place and that the proposed infrastructure (the provision of GIS substation buildings and all associated works extending the site of the current substation) represents additional plant and infrastructure which will contribute to the functionality, efficiency,

and security of the extant transmission network to cater for known future connection needs. Furthermore, I note that the substation expansion to the south will free up space within the existing substation site for future development at transmission or distribution voltages. The proposed development will not give rise to any fundamental or material change in the function, operation or purpose of the existing substation, and there will be no material change to the inputs or outputs of the station which will remain a 110/220kV substation. The established circuits into and out of the existing substation compound will not be subject to material deviation from their existing routes although they will be diverted as appropriate within the existing and proposed expanded substation from the existing AIS compound to the proposed new 110 and 220 kV GIS buildings within the extended substation compound area to the south.

- 7.6 As outlined above, the Board has previously determined a considerable number of requests for pre-application consultation in relation to proposed improvement / refurbishment / upgrade / extension works to existing electrical substation infrastructure. The Board concluded in these, and other similar cases, that the developments did not fall within the scope of section 182A of the Planning Act, and that consequently planning applications should be made in the first instance to the local planning authority.
- 7.7 Prior to concluding, and in the interests of clarity I note that the layout provided is stated as being 'indicative'. This is a typical approach at pre-application stage in relation to proposed developments involving substation electrical plant and equipment such as that currently proposed, as final electrical design requires a range of technical inputs and will also be dependent on procurement. I also note, however, that the prospective applicant has not referenced or stated that there are any details that are unlikely to be confirmed at the time of any future proposed application, nor am I aware of any request having been made by the prospective applicant under S182F of the Planning Act. Accordingly, I am satisfied that the details on file are sufficiently clear and detailed and that there is adequate information available to the Board to consider whether the subject development constitutes SID under the provisions of S182A of the Planning Act.
- 7.8 In conclusion, therefore, having regard to the nature and scale of the proposed development, the fact that it relates to the upgrade of an existing substation and

established transmission infrastructure without materially altering the function of the existing substation or existing electrical circuits into or out of the substation, and noting the significant number of previous determinations by the Board in respect of similar requests for pre-application consultation, I conclude that the proposed development does 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 and that a planning application for the subject infrastructure should therefore be made to the local planning authority in the first instance.

8.0 Recommendation

- 8.1 I recommend that the prospective applicant, EirGrid plc., be informed that the proposed development, consisting of the redevelopment and expansion of the existing Arklow 220/110 kV Electrical substation, in the townland of Killiniskyduff, Arklow Co. Wicklow, as set out in the plans and particulars received by An Bord Pleanála on the 1st of November 2024, does not fall within the scope of Section 182A of the Planning and Development Act 2000, as amended, and that the planning application should be made to Wicklow County Council in the first instance.
- 8.2 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.



Jimmy Green

Senior Planning Inspector

19th November 2024