Inspector's Report

ABP-315580-23

Development	Modification and upgrade of the Binbane 110kV Air Insulated Station.
Location	In the townland of Meenacahan Inver, Binbane, Co. Donegal.
Planning Authority	Donegal County Council
Prospective Applicant	Eirgrid plc.
Type of Application	Pre-Application consultation under Section 182E of the Planning and Development Act 2000, as amended.
Date of Site Inspection	13th February 2023
Inspector	Jimmy Green

1.0 Overview

1.1. On the 17th of January 2023 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 proposed modification and upgrade of the Binbane 110kV substation in the townland of Meenacahan, Inver, Binbane, Co. Donegal 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 virtual meeting was held with the Prospective Applicant on 17th February 2023 (preceded by the submission of a presentation to be made at that meeting by the prospective applicant on the 15th of February). A record of the meeting is attached to the file. The presentation made to the Board's representatives at the meeting is also attached to the file. Following the record of the meeting issuing the Prospective Applicant submitted correspondence on the 2nd of March 2023 confirming their desire to formally close pre-application consultations.

2.0 Site Location and Description

2.1. The site of the proposed development is in the townland of Meenacahan, Co. Donegal, approximately 5.5 kilometres north of Frosses and 8.7km southeast of Glenties. The site is accessed off the R262. The subject works are proposed within and immediately south of the existing 110kV substation and will predominantly occur on lands owned by the prospective applicant between the existing substation compound and the R262.

2.2. The site is relatively remote, with occasional one-off low residential housing in the wider area, wind turbines are in the landscape to the south and west of the site and the most proximate property to the existing substation is a Kingdom Hall (place of worship) immediately adjacent to the west of the site of the proposed development.

3.0 Proposed Development

3.1. The details of the proposed development are described in the documentation presented by the Prospective Applicant and consist of an extension to the existing

substation compound to allow the provision of power flow controllers. These devices allow EirGrid to make efficient use of the grid and respond to sudden changes in generation and demand.

3.2. The proposed development constitutes the provision of an extension and upgrade of an existing 110kV substation, incorporating:

- An extension to the south-west boundary of the existing substation.
- One 110kV wooden poleset to facilitate the connection of the Overhead Line (OHL) into the compound.
- Two 110kV gantry structures to allow connection of the circuit to the Power Flow Controllers.
- Power flow controllers comprising modular technology installed on steelwork towers.
- Associated 110kV equipment including, insulators, instrument transformers, overhead conductors, disconnectors, overhead conductors, disconnectors circuit breakers, surge arrestors and lightning masts.
- All ancillary site development works including site preparation works, site clearance, utility diversions (if required) and levelling; hardstanding, internal access tracks and temporary construction compound; underground cabling and earth grid; surface water drainage network including a soakaway; palisade fencing (approximately 2.6m high) and gates; lighting poles and landscaping as required to facilitate the development.

3.3. In terms of the need for the proposed development the prospective applicant has stated that the proposed power flow control devises are required to help reduce constraints on the transmission network by balancing flows between parallel paths on the network, in this regard the new controllers can push power off overloaded lines or pull power on to underused lines. This adds flexibility to the existing system making it more efficient and enhancing the security of supply, particularly given the fluctuating generation arising from the increased penetration of renewable energy generators onto the national grid.

4.0 Planning History

4.1. Relevant planning history on site includes:

- **APB-314781-22** – Current S182A application for upgrading of existing Binbane to Cathleen's Fall 110kV overhead line circuit and all associated site works which include works within the existing Binbane Substation.
- **VA0003:** Permission granted by ABP for a new 110kV line connecting Binbane station to Letterkenny station, including new switching station on the proposed Binbane-Letterkenny line in October 2009.
- **20/51388**: Permission granted by DCC in May 2021 for refurbishment and upgrade of the existing 38kV from the existing Binbane substation to the Glenties substation.
- **16/50473 (ABP – PL05.246851):** Permission granted by ABP for c. 2.3 km of underground electrical cabling from the Binbane substation to the Clogheravaddy wind farm, November 2016.
- **16/50440:** Application for c.2.3 km of underground cabling deemed to be invalid by the Planning Authority.
- **15/50397:** Permission granted by Donegal County Council (DCC) for an extension to northwest and alterations to existing substation, June 2015.

5.0 Planning Policy

5.1. Climate Action Plan

As part of its functions the Board must, in so far as practicable, perform its functions in a manner that is consistent with the most recent approved climate action plan, most recent approved national long term climate action strategy, national adaptation framework, sectoral plans, furtherance of the national climate objective and the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State[1].

[1] Section 15(1) of the Climate Action and Low Carbon Development Act 2015 (as amended) refers.

5.2. National Planning Framework

5.2.1. The National Planning Framework (NPF) is the Governments high-level strategic plan for shaping the future growth and development of Ireland to 2040. It is centred on ten National Strategic Outcomes (NSOs) which include NSO 1 - Compact Growth, NSO 5 – A strong Economy supported by enterprise, innovation, and skills, as well as NSO 8 – Transition to a Low Carbon and Climate Resilient Society. NSO 5 requirements include the coordination of growth and investment in world class infrastructure, while NSO 8 requirements include the provision of new energy systems and transmission grids to support more distributed renewables-focused generation.

5.3. National Energy Security Framework, April 2022

5.3.1. The National Energy Security Framework sets out a single overarching response to address Ireland's energy security needs in the context of the war in Ukraine, co-ordinating work connected to energy security across the electricity, gas, and oil sectors. Section 2.3.3 of the Framework states the following in relation to electricity:

> *"The level of dispatchable electricity generation capacity (i.e. capacity that does not rely on wind or solar energy) needs to increase significantly over the coming years due to the reduced reliability of existing plants, anticipated new power stations not being developed as planned, expected strong growth in demand for electricity, and the closure of existing generation."*

Section 6.4 of the framework goes on to state that *"It is therefore important that a specific focus is placed on ensuring the electricity system is as resilient as possible to any disruptions in natural gas supplies".* Section 7 goes on to highlight the need to phase out gas dependency by replacing fossil fuels with renewable energy sources.

5.4. Circular Letter PL12.2021 and Government Policy Statement on Security of Electricity Supply, (Nov. 2021)

5.4.1. Circular Letter PL12.2021 issued from the Department of Housing, Local Government and Heritage on the 10th of December 2021. It seeks to ensure security of electricity supply which is at short to medium term risk due to inter alia - lower than

expected availability of some existing power stations, anticipated new power stations not being developed as planned, expected growth in electricity demand due to increased activity by high energy consuming industries, and the expected closure of some power stations which make up approx. 25% of existing conventional electricity generating capacity. The circular letter states:

> "*Planning authorities are advised that where planning applications are submitted for electricity infrastructure or infrastructure that may impact on electricity supply –including for existing conventional electricity generation – that they should, until further notice, be considered having regard to the* [Government] *Policy Statement* [on security of Electricity Supply, November 2021]*. Furthermore, it is requested that the determination of all such planning applications should be prioritised as much as possible in light of the current circumstances relating to electricity supply*."

5.4.2. The Government Policy Statement on Security of Electricity Supply, issued from the Department of the Environment, Climate and Communications in November 2021. Within the Policy Statement the Government recognises inter alia that ensuring security of electricity supply continues to be a national priority as the electricity system decarbonises towards net zero emissions and that there is a need for very significant investment in additional flexible conventional electricity generation, electricity grid infrastructure, interconnection, and storage in order to ensure security of electricity supply. Section 3 of the statement notes that the Government has approved inter-alia that:

> *"It is appropriate for additional electricity transmission and distribution grid infrastructure, electricity interconnection and electricity storage to be permitted and developed in order to support the growth of renewable energy and to support security of electricity supply."*

5.5. Northern and Western Regional Spatial and Economic Strategy 2020-2032

5.5.1. The Northern and Western Regional Spatial and Economic Strategy 2020 – 2032 (RSES) contains the following Regional Policy Objectives (RPOs) in relation to the electrical grid network (Section 8.2 of the RSES refers).

- **RPO 8.1:** *"The Assembly support the development of a safe, secure and reliable electricity network and the transition towards a low carbon economy centred on energy efficiency and the growth projects outlined and described in this strategy."*
- **RPO 8.2**: "*Support the reinforcement and strengthening of the electricity transmission network with particular reference to the regionally important projects contained within Table 11."* [table 11 of the RSES]
- **RPO 8.3:** ***"****The Assembly support the necessary integration of the transmission network requirements to allow linkages with renewable energy proposals at all levels to the electricity transmission grid in a sustainable and timely manner."*
- **RPO 8.4**: *"That reinforcements and new electricity transmission infrastructure are put in place and their provision is supported, to ensure the energy needs of future population and economic expansion within designated growth areas and across the region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs. Ensure that development minimises impacts on designated areas."*

5.6. County Development Plan

5.6.1. The site of the proposed development is within the functional area of the Donegal County Development Plan 2018 – 2024 (CDP). Under the provisions of the CDP the site is located in a structurally weak area, with the southern portion of the site (where it is proposed to extend the substation) being located within an Area of High Scenic Amenity (HSA) associated with the R262 Road corridor (the CDP centres an approximate 100m corridor of HSA lands along the R262 Road), and the remainder of the site (including the existing substation) being located within a Area of Moderate Scenic Amenity – which is the lowest scenic designation in the CDP)

5.6.2. **E-O-2** of the CDP states that it is an objective *"To facilitate the strengthening of the electricity grid to enable the harnessing and distribution of energy. The Council will support transboundary and trans-national interconnectors to enable the exporting of energy outside of the County".*

5.6.3. **E-P-1:** of the CDP states *"It is policy of the Council to facilitate the development of grid reinforcements including grid connections and transboundary energy network (electricity and gas) into and through the County and between all adjacent counties and to support the development of cross border grid connections, subject to other objectives and policies of this plan."*

6.0 Prospective Applicant's Submission

6.1. The applicant considers that the subject development does not constitute Strategic Infrastructure for the purposes of electricity transmission, pursuant to Section 182A of the Planning and Development Act, 2000 as amended. The main points raised in this regard in their documentation can be summarised as follows:

- The proposed development while being of considerable benefit to the transmission network, from a planning perspective, is essentially an enhancement of the existing substation infrastructure.
- Works are proposed within an existing and long-established substation.
- Having regard to the provisions of section 37(A)(2) of the Planning and Development Act, 2000 (as amended).
- While the proposed development constitutes additional apparatus and an extension to the existing substation, there will be no increase in voltage, no material change to the inputs or outputs and the station will remain a 110kV substation.
- The prospective applicant also lists fifteen precedent cases which it considers as comparable cases which the Board previously determined did not constitute Section 182A development, these are listed below:
    - VC0040: Redevelopment of the existing 220 kV Finglas Electrical Substation (2010).
    - VC0055: Redevelopment of the existing 400 kV Moneypoint Electrical Substation (2011).
    - VC0061: Redevelopment of the existing 110 kV Ardnacrusha Electrical Substation (2011).

- VC0070: New Reactors at existing Poolbeg 220/110 kV Electrical Substation (2013).
- VC0101: Redevelopment of the existing 220 kV Inchicore Electrical Substation (2016).
- VC0109: New Reactor at the existing Knockanure 220 kV Electrical Substation (Kerry - 2017).
- VC0110: Redevelopment of the existing 110 kV Galway Electrical Substation (2017).
- 300928: Redevelopment of the existing 110 kV Kilbarry Electrical Substation (Cork - 2018).
- 301174: New STATCOM devices at three existing electrical substation sites (Cork, Kerry, and Tipperary - 2018).
- 303148: Installation of series capacitors at three existing 400 kV electrical substations in Kildare, Clare, and Galway (2018).
- 306908: Development of a 110kV control room at the existing Trien 220/110 kV electricity substation and associated works in Co. Kerry (2020).
- 311950: Modification and upgrade of the Dalton 110kV Substation Location Townland of Clare (Claremorris), Co. Mayo (2021).
- 313964: Proposed redevelopment of the existing Maynooth 220kV/110kV electrical substation (2022) .
- 313931: Upgrading of the existing Derryiron 110kV electrical substation (2022).
- 314111: Upgrading of the existing Woodland 400/200kV electrical substation (2022).

7.0 Legislative Provisions

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

7.1.1. Strategic Infrastructure Development is defined within the Planning Act as meaning, inter alia *"…(d) any proposed development referred to in section 182A(1)…"*

7.1.2. Section 182A(1) of the Planning 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.*"

7.1.3. 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."*

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

7.2.1. 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][2] in relation to electricity, means the transport of electricity by means of a transmission system [in the State or offshore, or both][3], 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[4] 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."*

8.0 **Assessment**

8.1. The details provided with the request do not include finalised detailed drawings or elevations in respect of the proposed development, however a site location map and site plan have been provided. I consider that the written description in the cover letter

[2] Energy (Miscellaneous Provisions) Act 2006 inserted this reference. Section 2A of the Electricity Regulation Act refers to Interconnectors.
[3] Inserted by the Maritime Area Planning Act 2021
[4] The Electricity Supply Board.

and the subsequent presentation (which included photography images of the subject power flow controller infrastructure) and discussion at the consultation meeting (refer to record of meeting and copy of presentation on file) adequately describe the nature, scope, and purpose of the proposed development. Furthermore, I consider 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.

8.2. As noted previously, the definition of 'strategic infrastructure' includes development comprising or for the purposes of electricity transmission, with 'transmission' defined as either of the following:

- The transport of electricity by means of a high voltage line of 110kV 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).

8.3. Based on this statutory definition and the information contained in the prospective applicant's request, I am satisfied that the existing Binbane 110kV electrical substation can be regarded as part of the electricity transmission system for the purposes of the Planning Act.

8.4. While representing the first deployment of this form of technology in the country, in essence the proposed development comprises the provision of electric plant and infrastructure within and adjacent to an established and operational substation. The works therefore represent the extension and upgrading of an existing 110kV substation. In considering a wide range and number of similar such 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.

8.5. While I note 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 in this case.
- **ABP-314111-22**: Related to the upgrading of the existing Woodland 400 / 220kV Electrical Substation, including installation of additional outdoor AIS electrical apparatus, an approx. 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 Gas insulated Switchgear (GIS) 16 Bay Building, (in an extended area south of the existing compound), approx. 1,500m^2 in area and 12.5m high, all associated outdoor electrical equipment (incl. 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-301174-18**: This related to three separate proposals for the installation of similar STATCOM (Static Synchronous Compensation) transmission infrastructure at three separate locations. This case is referenced as it related to the introduction of new technology (within the state), the purpose of which was to increase system stability and power quality and to control reactive power flows in the network and allow increased power transfer capacity without the need for significant traditional network reinforcement. The inspectors report in this instance noted: "*Having regard to the nature and scale of the proposed developments and critically their relationship to existing substations, …… I conclude that the proposed developments consisting of three new STATCOM devices at three existing substation sites…… do not fall within the scope of section 182A of the Planning and Development Act 2000, as amended.*" The Board determined that the provisions of S182A of the Planning Act were not applicable in this case.

8.6. 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 subject infrastructure (the provision of flow controllers) represents additional plant which will contribute to the functionality, efficiency, and security of the extant transmission network. 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 110kV substation. The circuits into and out of the existing substation compound will not be subject to material deviation to their established routes.

8.7. 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 substation infrastructure. The Board concluded in these, and other similar cases, that the development did not fall within the scope of section 182A of the Planning Act, and consequently that planning applications should be made in the first instance to the local planning authority.

8.8. Having regard to the limited nature and scale of the proposed development, the fact that it relates to the upgrade of an existing substation and existing transmission infrastructure without materially altering the function or capacity 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 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 and that a planning application for the subject infrastructure should therefore be made to the local planning authority in the first instance.

9.0 **Recommendation**

9.1. I recommend that the prospective applicant, EirGrid plc., be informed that the proposed development, consisting of the modification and upgrading of the existing Binbane 110kV electrical substation, in the townland of Meenacahan, Inver, Binbane, Co. Donegal, as set out in the plans and particulars received by An Bord Pleanála on the 17th of January 2023 and 15th of February 2023, 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 Donegal County Council in the first instance.

Jimmy Green
Senior Planning Inspector

27th March 2023