

An
Bord
Pleanála

Inspector's Report ABP-320118-24

Development	Synchronous Condenser and associated 110kV Underground Electricity Cabling and Connection Infrastructure to Buffy 110kV Substation.
Location	Letter, Moycullen, Co. Galway
Planning Authority	Galway County Council
Prospective Applicant	Buffy Letter Limited
Type of Application	Pre-Application consultation under Section 182E of the Planning and Development Act 2000, as amended
Date of Site Inspection	02 nd August 2024
Inspector	Máire Daly

1.0 Introduction

- 1.1. The Board received a request on 08th July 2024 on behalf of the prospective applicant, Buffy Letter Limited., to enter into pre-application consultations under section 182E of the Planning and Development Act, 2000 (as amended) in relation to the proposed amendment to the development of a synchronous condenser and associated 110kV Underground Electricity Cabling and Connection Infrastructure to Buffy 110kV Substation at Letter, Moycullen, Co. Galway.
- 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 by the Planning and Development (Strategic Infrastructure) Act, 2006. This Report provides an overview of the proposed project, the relevant legislative provisions, and an opinion as to whether or not the proposal is strategic infrastructure development.

2.0 Site Location and Description

- 2.1. The proposed site which is c. 4.5ha in area is located in the townland of Letter, County Galway, within the existing Ardderroo Wind Farm development and located west of and adjacent to the Buffy 110kV substation.
- 2.1. The subject site is within an undulating, upland rural landscape where a mix of commercial forestry, agriculture and renewable energy land uses are evident within the surrounding landscape.
- 2.2. Access to the site is provided via the existing Ardderroo Wind Farm servicing road which connects to the N59 located in townlands of Knockaunranny and Doon, Co. Galway. The site is c. 7.9km south of Oughterard and c. 7.8km west of Moycullen. The existing access roads leading to the site serve a number of other large wind energy developments within the Galway Wind Park, commercial forestry, peat lands, farm lands and local access. The site is elevated above the access road and the Buffy substation to the east. The site is screened partly by conifer plantation to the north and east. A small coppice of deciduous trees and scrub currently exist on the site.

3.0 Proposed Development

3.1. The proposed development is for amendments to a previously permitted grid stability service development (Galway Co. Co. Planning Ref: 23/60641). The proposed amendments comprise the following:

Revised equipment layout within the Synchronous Condenser compound, including;

- Transformer
- Synchronous condenser building;
- Cooling equipment;
- Modular containers;
- Realignment of site access roads;
- Realignment of 110kV underground cabling route;
- Increased height of synchronous condenser building;
- Reduced finished level of synchronous condenser compound;
- Additional electrical infrastructure and hardcore area to facilitate connection to Buffy 110kV substation.

3.2. In this case, the facility will be connected to the Buffy 110kV substation to the west of the development site and the final specification for this connection will be subject to agreement with EirGrid.

3.3. It is stated that the proposed synchronous condenser is a grid services facility which delivers inertia to stabilise grid performance by catching and recovering a falling frequency event on the network.

4.0 Planning History

4.1. The site is located within the context of the existing Ardderroe Wind Farm development and adjacent to the Buffy 110kV substation. As stated above a previous synchronous condenser was approved on site by Galway County Council in 2023. Below is a planning history of the site in more detail overleaf:

4.2. **Ardderroo Synchronous Condenser**

Galway County Council Ref. 23/60641 – Permission granted in November 2023 for synchronous condenser, enclosed within a building (12.5 metres high) with associated plant and apparatus, transformers, circuit breakers, modular electrical control containers, air compressor, cooling equipment, underground cabling (including 110kV connection to the adjacent Buffy substation within Ardderroo Wind Farm), lightning protection poles, perimeter security fencing, drainage, landscaping, temporary construction compound, access tracks (new and upgrade of existing), all ancillary site development works.

4.3. **Prior Associated Pre-app with An Bord Pleanála**

ABP Ref. 317289 – July 2023 – Synchronous Condenser development - determined that the development did not constitute ‘Strategic Infrastructure Development’ and any application for planning permission should be made to the Local Authority (Galway County Council) in accordance with the provisions of section 34 of the Planning and Development Act, as amended.

4.4. **Ardderroo Wind Farm – SID Application**

ABP Ref. 303086 – Permission granted in July 2019 for Construction of up to 25 number wind turbines, one permanent meteorological mast, one 110kV substation and all its associated infrastructure including connection to the national grid and inclusion of recreational and amenity facilities and walks.

4.5. **Section 146B amendments**

ABP Ref. 314439 – Approval to Alter decision - Not a material Alteration (EIAR Case) October 2022 - for Amendment to ABP-303086-18 to amend the internal access road arrangement providing access to Turbines Number T14, T17 and T22.

ABP Ref. 308302 – Approval to Alter decision - Not a material Alteration (No EIS) November 2020 - for section 146B application for alterations to An Bord Pleanála reference ABP-303086-18 in the townlands of Ardderroo, Letter, Finnaun, County Galway.

5.0 Relevant Precedents

- 5.1. The prospective applicant cites a number of cases where the Board determined that proposed synchronous condenser development did not comprise SID under section 182A. Those cases and others that I consider to be of relevance include:

ABP Ref. No.	Location	Development Description	Decision Date	Decision
ABP-317289-23	Co. Galway (current site)	Synchronous Condenser development connected to the Buffy 110kV substation	2023	Not SID
ABP-316011-23	Co. Mayo	Proposed synchronous condenser development and connection to the Srahnakilly 110 kV substation, via a 110kV underground cable.	2023	Not SID
ABP-315859-23	Co. Cork	Proposed grid stability service development comprising synchronous condenser compound and 110kV underground electricity connection cabling to Clashavoon 220kV substation.	2023	Not SID
ABP-311993-21	Co. Offaly	Electrical development associated with a proposed Battery Energy Storage System and Synchronous Condenser	2022	Not SID
ABP-311992-21	Co. Longford	Electrical development associated with a proposed Battery Energy Storage System and Synchronous Condenser	2022	Not SID
ABP-311031-21	Co. Cork	Proposed development of an underground cable and on-site GIS Building to facilitate the operation of a Synchronous Compensator Compound and associated ancillary equipment	2021	Not SID
ABP-310828-21	Dublin 17	Proposed installation of a Synchronous Compensator Compound.	2021	Not SID

ABP-310256-21	Co. Kildare	Proposed development of underground cable and on-site 220kV substation to facilitate the operation of a Synchronous Compensator Compound	2021	Not SID
---------------	-------------	------------------------------------------------------------------------------------------------------------------------------------------	------	---------

6.0 Prospective Applicant's Case

6.1. The prospective applicant's case, as outlined in the cover letter submitted on their behalf by MKO, can be summarised as follows:

- The proposed synchronous condenser draws a modest amount of power from the grid for its operation and does not relate to energy generation.
- While 110kV in nature, the underground electricity cable connection to the Buffy 110kV Substation is for the use of the synchronous condenser in support of transmission operations only and does not convey electricity from a generating station to a substation or from one generating station to another. On that basis, it is reasonably concluded that the proposal does not fall within the scope of section 182A.
- The applicant highlights that on the 28th of July 2023, An Bord Pleanála provided a determination on this development under Case Ref: 317289, stating that the development did not constitute Strategic Infrastructure Development. The Proposed Amendments are not envisaged to warrant a different determination.
- In a number of precedent cases, An Bord Pleanála has confirmed that the development nature of the proposed synchronous condenser compound to support the Ardderroo Wind Farm Substation would;
 - not be of strategic economic or social importance to the State or Region;
 - not in itself contribute to the substantial fulfilment of national and regional policy objectives; and
 - not have a significant effect on the area of more than one planning authority.

- The proposal is a standalone ancillary service to the overall grid. There is no dedicated policy in the National Planning Framework (NPF) or Regional Spatial and Economic Strategy (RSES) for the Northern and Western Regional Assembly underpinning the delivery of the subject proposal specifically. It is not of scale that it would contribute substantially to the fulfilment of more general objectives of the NPF or RSES.
- The subject site is also c.13.8 km southwest from the administrative boundary of County Mayo at its nearest point and the nature of the project and baseline review of environmental conditions means significant effects on this local authority can reasonably be discounted.
- The position that the proposed amendment is not SID is supported by significant precedent in the form of recent decision making by the Board which has taken a consistent view that synchronous condensers and associated high voltage underground cable connections do not fall within the scope of section 182A and do not constitute SID.
- It is considered that the proposed amendments to the permitted grid stability service development do not change the nature of the development previously permitted, and it remains outside the scope of section 182A of the Planning and Development Act 2000.
- As stated in the previous correspondence (ABP Ref: 317289), the synchronous condenser is a demand rather than a supply connection and does not come within the definition of 'transmission' as set out in section 2(1) of the Electricity Regulation Act, 1999. Further, this position has been corroborated previously by An Bord Pleanála based on a review of governing precedent.

6.2. The request was accompanied by a cover letter and a series of drawings including a site location map, proposed site layout and plans of the proposed amendment layout for the development which compares the permitted development and the proposed amendments.

7.0 Legislative Provision

7.1. Planning and Development Act 2000 (as amended)

7.1.1. Section 182A(1) of the Planning and Development Act, 2000 (as amended) requires that where a person (referred to as the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, the undertaker shall prepare an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly.

7.1.2. 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."

7.1.3. 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.

7.1.4. Although section 182A does not include criteria to test the strategic importance of electricity transmission development, the provisions of the 2006 Act include guiding criteria to determine if a project qualifies as strategic infrastructure development. section 37A(1) states that an application for permission for any development specified in the Seventh Schedule shall be made to the Board under section 37E, provided that; as per section 37A(2) the development falls within one or more of the following:

(a) the development would be of strategic economic or social importance to the State or the region in which it would be situate,

(b) the development would contribute substantially to the fulfilment of any of the objectives in the National Planning Framework or in any regional spatial and

economic strategy in force in respect of the area or areas in which it would be situate,

- (c) the development would have a significant effect on the area of more than one planning authority.

7.2. Electricity Regulation Act 1999, as Amended

- 7.2.1. 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 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 Assessment

- 8.1. The proposed development comprises amendments to a previously permitted grid stability service development (synchronous condenser) permitted under Galway County Council planning Ref: 23/60641. A prior pre-application consultation also took place with the Board for this previous application under ABP Ref. 317289.
- 8.2. The proposed amendments comprise revised equipment layout within the synchronous condenser compound which includes increased height of synchronous condenser building, amendments to the transformer, cooling equipment, modular containers and reduced finished level of synchronous condenser compound. The proposal also includes the realignment of site access roads and realignment of 110kV underground cabling route and additional electrical infrastructure and hardcore area to facilitate connection to Buffy 110kV substation.
- 8.3. The prospective applicant, Buffy Letter Limited, is seeking a determination from the Board as to whether the proposal is or is not strategic infrastructure development. The prospective applicant considers that the proposed synchronous condenser and ancillary works are not strategic infrastructure development. A planning application will be submitted to Galway County Council for the proposed development should the Board agree.
- 8.4. The proposed synchronous condenser is for the purpose of delivering “inertia” to the power system. Inertia is a measure of the system’s resistance to a change in speed (frequency). Conventional power plants have more time to recover the system and to replace missing generation and thus the National Grid relies on this inertia to catch and recover a falling frequency event. However, increased levels of renewable energy can give rise to uncertainty and variability for grid operators and additional actions are therefore required to balance the system.
- 8.5. At present, EirGrid has to curtail off some wind and bring on a conventional power plant for its inertia. The synchronous condenser delivers inertia on a standalone basis without the need to bring on a conventional power plant just for its inertia and reserves. When grid frequency fluctuates, the synchronous condenser’s inherent inertia resists a change in speed and this helps to stabilise the grid by drawing power to overcome friction and bearing drag, acting as a large motor to keep itself spinning exactly in line with grid frequency. In this regard, the prospective applicant considers

the proposed development to be a grid services facility. It does not generate electricity itself, and instead draws a modest amount of power from the grid for its operation. The Board will note that the location of the proposed development is adjacent to the Buffy 110kV substation, which serves the Ardderro Wind Farm, and as such, is within an area where stability demand is required.

- 8.6. 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).
- 8.7. Based on this statutory definition and the information contained in the prospective applicant's request, I am satisfied that the Buffy 110kV electrical substation can be regarded as part of the electricity transmission system for the purposes of the 2000 Act.
- 8.8. The Board will note that the proposed synchronous condenser draws a modest amount of power from the grid for its operation and does not relate to energy generation. It is classified as a demand rather than a supply connection with the purpose of providing a grid stability service. As the proposed development does not generate electricity, it would not lead to the conveyance of electricity from a generating station to a substation or from one generating station to another. Therefore, the proposed synchronous condenser does not fall within the definition of "transmission" as set out in the Electricity Regulation Act, 1999 or "energy transmission" as referred to in section 182A of the Planning and Development Act, 2000 (as amended).
- 8.9. The proposed 110kV cable connection will be used solely to connect the synchronous condenser to the substation and will not be used to transport electricity to/from a generating station, another substation or to any final customer. Therefore,

while the Buffy 110kV substation can be considered to form part of the transmission system, I consider that the proposed development would not give rise to any fundamental change in the function, operation or purpose of the substation or the manner in which it connects to the national transmission grid. It would not generate or store electricity, but instead merely perform an ancillary support function, stabilising the electricity flows through the substation. The synchronous condenser will be used on a needs/must basis to ensure balance to any fluctuations in grid frequency only, providing inertia as an ancillary service to the grid. It does not represent a 'node' on the system. As stated previously the nature of the synchronous condenser is such that it draws a small amount of power from the grid that would therefore be classified as a demand rather than a supply connection.


- 8.10. As outlined above, the Board has previously determined a considerable number of requests for pre-application consultation in relation to the installation of synchronous condensers and associated development at or in the vicinity of existing substations. In particular, I note the recent case on the same site ABP-317289 and also separately ABP-316011-23, both of which related to similar forms of development. In both cases, this included synchronous condensers and underground 110kV cable connection to existing substations. The Board has consistently concluded in these, and other similar cases, that the proposed 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.
- 8.11. Having regard to the precedent set by the Board regarding similar cases as detailed in Section 5.0 of this report, I would agree that the current proposal would not be of strategic importance to the State or region, as it will only provide a standalone ancillary service to the grid. The proposal is not a critical link for other strategic developments in the area and is not of strategic economic or social importance to the State or Region. The National Planning Framework recognises that new energy systems and transmission grids will be necessary to harness the potential of renewable energy. Furthermore, the Regional Spatial and Economic Strategy supports the reinforcement and strengthening of the electricity transmission and distribution networks. However, the proposed development is not of a scale or of such importance that would contribute substantially to the fulfilment of the objectives of the NPF and RSES. The proposal will be located fully within the administrative

boundary of Galway County Council, and approximately 13.8km from the boundary of Co. Mayo. I would accept that there will be no significant effects on either of these local authorities.

- 8.12. Having regard to the purpose, nature and scale of the proposed development, the fact that it relates to ancillary equipment for the stabilisation of electrical flows through an existing substation, and noting 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.

9.0 Recommendation

- 9.1. I recommend that the prospective applicant, Buffy Letter Limited, be informed that the proposed development, consisting of the development of a synchronous condenser and associated development, in the townland of Letter, Moycullen, Co. Galway, as set out in the plans and particulars received by An Bord Pleanála on the 8th July 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 therefore be made to Galway County Council in the first instance.
- 9.2. 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.



Máire Daly

Senior Planning Inspector

12th August 2024