



An
Bord
Pleanála

Inspector's Report ABP-315859-23.

Development	Proposed development of grid stability service development comprising a Synchronous Compensator Compound.
Location	Aughinida, Co. Cork.
Planning Authority	Cork County Council.
Prospective Applicant	Enerco Energy Ltd.
Type of Application	Pre-application consultation.
Date of Site Inspection	08 th May 2023.
Inspector	A. Considine.

1.0 Introduction

- 1.1. The Board received a request on 17th of February 2023 from prospective applicant, Enerco Energy Ltd, with an address at Lissarda Industrial Estate, Lissarda, Co. Cork, and through their agent HW Planning, to enter into pre-application consultations under Section 182E of the Planning and Development Act, 2000 (as amended) in relation to the proposed grid stability service development in the townland of Aughinida, Co. Cork. The proposed development comprises of a Synchronous Compensator Compound and associated equipment on the 4.7ha site.
- 1.2. A pre-application consultation meeting was subsequently held between An Bord Pleanála and the prospective applicant on 12th May 2023. The prospective applicant formally requested closure of the pre-application consultation process by written correspondence received by the Board on 22nd May 2023.
- 1.3. The primary purpose of 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 subject site is located approximately 4.4km to the north east of the town of Macroom in the townland of Aughinida, and a rural area of County Cork. The site comprises a greenfield site with the main body of the site lying approximately 250m to the south of the Clashavoon 220kV substation, with the subject site boundary extending to the EirGrid substation lands to the north. The site has a stated area of 4.7ha and is currently under grass.
- 2.2. The rural area is noted to include a number of one-off houses in the area and a prominent feature of the location is the Bealick Stream which connects to the site along the northern boundary. The Aghinagh GAA Club lies approximately 600m to

the north east of the site. The Board granted planning permission for a Solar PV Panel array consisting of up to 33,000m² of solar panels at Knockglass and Kilberrihert, Coachford, Co. Cork, approximately 2km to the north of the subject site, ABP ref: PL04.245862 refers. This permission was granted on the 16th of June 2016. The applicant applied for and received permission to extend the duration of this permission on the 6th of September 2021.

- 2.3. The site is accessed over the local road network and ultimately via the L7477 local road to the south. The site includes approximately 300m of an access track running from the south to north before it opens into the main body of the site. There is a further spur running in a northern direction for a distance of 250m to the boundary of the Clashavoon Substation site.
- 2.4. The site lies within a rural area which is identified as being located within the Greater Cork Ring Strategic Planning Area and a Rural Area Under Strong Urban Influence in terms of settlement location policy. The Wind Strategy Map identifies the location as being open for consideration. The site does not lie within a high value landscape and the closest scenic routes are as follows:
- Ref: S20 - Roads at Musheragh in the boggeragh Mountains and roads from Musheragh to Ballynagree, Lackdoha and Rylane Cross approximately 3.5km to the north, and
 - Ref: S37 - Road between Leemount and Macroom via Coachford approximately 3.8km to the south.

3.0 Proposed Development

- 3.1. The proposed development comprises a Synchronous Condenser compound, which is a grid services facilities which delivers inertia to stabilise grid performance by catching and recovering a falling frequency event on the network. The development will contain the following:
- Synchronous condenser with flywheel;
 - Transformer, air compressor and cooling equipment;

- Modular containers housing electrical and control equipment;
- 110kV underground electricity cabling;
- Security fencing, entrance gate and access tracks;
- Ancillary site development works.

3.2. Given the function of the infrastructure, it needs to be located next to substations where stability demand is required. In this instance, the facility will connect to the Clashavoon 220kV Substation to the north of the site via a 110kV underground electricity cabling. It is envisaged that the cable will enter the substation by means of horizontal directional drill under the Bealick Stream, and connection will be subject to agreement with EirGrid.

3.3. In terms of the proposed layout of the compound, the details submitted present a typical Synchronous Condenser Compound layout which includes the main, auxiliary and start-up transformers, blast/fire wall, electrical busbar, external circuit breaker and the Synchronous Condenser with flywheel with associated lube oil and vacuum skid and air compressor and pumps. The compound also includes cooling equipment / cooling radiators and 6 no. modular containers to house electrical and control equipment with an access platform and steps. The area around the switchyard will be finished in crushed stone with an access road which will run tight to the internal side of the compound boundary fencing.

4.0 Planning History

The following is the relevant planning history pertaining to the subject site.

PA ref: 23/4541: Application lodged with Cork County Council on the 24th March 2023 for a 10 year Planning Permission for a Grid Stability Service Development including the provision of a synchronous condenser enclosed within a building up to 12.5 metres in height with associated plant and apparatus, transformers, circuit breakers, modular electrical control containers, air compressor, cooling equipment, underground cabling (including 110kV connection to the nearby Clashavoon substation), lightning protection masts, perimeter security fencing, drainage

infrastructure, landscaping, temporary construction compound, access tracks (new and upgrade of existing), upgrade of existing entrance off the L7477 local road and all ancillary site development works. A decision on this case was due to be made by the 18th of May 2023 and a request for further information issued on this date.

The following represents the relevant planning applications in the vicinity of the site:

ABP ref: ABP-312606-22: Permission sought for a wind farm development of 20 turbines with 110kV electrical substation and all related site works and ancillary development with the southern extent of the application site located approximately 600m to the north of the site, at the Clashavoon Substation.

5.0 Planning Precedent

5.1. An Bord Pleanála Ref: ABP-302647-18

- 5.1.1. The Board decided in March 2019 that a proposal for a 110kV/ 220kV cable and transformer, control container and electrical housing to facilitate the operation of five battery storage units and four rotating stabilisers at Glencloosagh, Co. Kerry is not strategic infrastructure development.

5.2. An Bord Pleanála Ref: ABP-310256-21

- 5.2.1. The Board decided on 10th September 2021 that the proposed development of an underground cable and on-site 220kV substation to facilitate the operation of a synchronous compensator compound at Windgates, Co. Kildare is not strategic infrastructure development.

5.3. An Bord Pleanála Ref: ABP-310828-21

- 5.3.1. The Board decided on the 21st October 2021 that the proposed development of a Synchronous Compensator Compound to the south of Belcamp 220kV Substation, Belcamp, Dublin 17 is not strategic infrastructure development.

5.4. **An Bord Pleanála Ref: ABP-311031-21**

- 5.4.1. The Board decided on the 21st October 2021 that the proposed development of a Synchronous Compensator Compound and associated equipment at Killeena, Co. Cork is not strategic infrastructure development.

5.5. **An Bord Pleanála Ref: ABP-311992-21**

The Board decided on the 17th January 2022 that the proposed development of Electrical development associated with a proposed Battery Energy Storage System (BESS) and Synchronous Condenser (Sync Con) within the existing Lough Ree Power Station, Lanesborough, Co. Longford is not strategic infrastructure development.

5.6. **An Bord Pleanála Ref: ABP-311993-21**

The Board decided on the 17th January 2022 that the proposed development of Electrical development associated with a proposed Battery Energy Storage System (BESS) and Synchronous Condenser (Sync Con) within the existing West Offaly Power Station, Shannonbridge, Co. Offaly

6.0 **Prospective applicant's case**

- 6.1. The prospective applicant's case is that the proposed development should not be considered as strategic infrastructure for the following reasons:

- 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.
- There is precedent with the Board confirming that development of the nature proposed would not be of strategic economic or social importance to the state or region.
- The development would not in itself, contribute to the substantial fulfilment of national and regional policy objectives.
- The proposal is a standalone ancillary service to the overall grid.

- It is not of a scale that would contribute substantially to the fulfilment of more general objectives of the NPF or RSES – and there are no dedicated policies in either document underpinning the delivery of the subject proposal specifically.
- The site is located approximately 26km from the administrative boundary of Co. Kerry and the nature of the project and baseline review of environmental conditions means significant effects on this local authority can reasonably be discounted.

6.2. It is strongly concluded that the proposed grid stability service development does not fall within the scope of Section 182A of the Planning and Development Act. A formal determination from the Board is requested.

7.0 Legislative Provisions

7.1. Section 182A(1) of the Planning and Development Act, 2000 (as amended) requires that where a person (referred to as the ‘undertaker’) intends to carryout development comprising or for the purposes of electricity transmission, the undertaker shall prepare an application for approval of the development to the Board.

7.2. Section 182A(9) of the Act 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.

7.3. Section 2(1) of the Electricity Regulation Act, 1999 defines transmission as follows:

“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, 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.”

7.4. Electric plant is defined as follows:

“any plant, apparatus or appliance used for, or for 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 the consumer.

7.5. 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.

8.0 Assessment

- 8.1.1. The proposed development comprises a synchronous compensator compound and associated ancillary equipment, on a 4.7ha site to the south of Clashavoon 220kV Substation, Aughinida, Co. Cork. The development includes other ancillary equipment including a transformer, air compressor and cooling equipment, modular containers housing electrical and control equipment, security fencing and ancillary site development works and 110kV underground electricity cabling for the purposes of connecting the proposed synchronous compensator to the adjoining Clashavoon 220kV Substation.
- 8.1.2. The prospective applicant, Enerco Energy 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 compensator compound and ancillary works are not strategic infrastructure development. A planning application will be submitted to Cork County Council for the proposed development should the Board agree.
- 8.1.3. The proposed synchronous compensator 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.
- 8.1.4. The synchronous compensator 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 compensator’s inherent inertia provides a smoothing effect to provide efficiency and security of supply from renewables and helps to stabilise the grid. The Board will note that the location of the proposed development is adjacent to the Clashavoon 220kV substation, which serves the Knockglass Solar Farm, and the Bawnmore Wind Farm, and as such, is within an area where stability demand is required.

- 8.1.5. In deciding whether or not the proposed synchronous compensator compound and ancillary works and equipment are or are not strategic infrastructure development, it should be noted that Section 2 of the Planning and Development Act, 2000 (as amended) provides interpretations except where the context requires otherwise. Strategic infrastructure development means inter alia (d) any proposed development referred to in Section 182A(1). Under this Section, an undertaker shall apply to the Board for approval of a development comprising or for the purposes of energy transmission. Section 182A(9) states that ‘transmission’ shall be construed in accordance with Section 2(1) of the Electricity Regulation Act, 1999 and shall also be construed as meaning inter alia the transport of electricity by means of a high voltage line where the voltage would be 110kV or more.
- 8.1.6. Transmission shall also be construed in accordance with Section 2(1) of the Electricity Regulation Act, 1999 as “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, or to or from any interconnector or to final customers but shall not include any such lines which the Board¹ 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.”
- 8.1.7. 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

¹ The Board cited here refers to the Electricity Supply Board and the Commission refers to the Commission for Electricity Regulation. EirGrid took over the operation and development of the national grid in 2006.

transmission” as referred to in Section 182A of the Planning and Development Act, 2000 (as amended).

- 8.1.8. The proposed development also comprises a new 110kV underground cable connection to the adjacent Clashavoon 220kV Substation, located approximately 250m to the north of the site. The proposed infrastructure does not include any potential to store electricity on the site and the Synchronous Compensator 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. The nature of the Synchronous Compensator 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.
- 8.1.9. The Board has also given consideration in previous cases as to whether or not a development in question is of strategic national importance. The long title of the 2006 Act provides for the making directly to An Bord Pleanála of applications for permission for “developments of strategic importance to the State”. Section 37A(2) refers to 7th Schedule development but generally describes strategic infrastructure development as falling 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.
- 8.1.10. Having regard to the precedent set by the Board regarding similar cases as detailed in Section 5 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.

- 8.1.11. 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 Cork County Council, and approximately 26km from the boundary of Co. Kerry. I would accept that there will be no significant effects on either of these local authorities.
- 8.1.12. Having regard to the nature and scale of the proposed development as described, and to the general description and scale of strategic infrastructure development set out in section 37A(2), I conclude that the proposed development consisting of a high inertia synchronous compensator and associated ancillary equipment, fencing and 110kV underground cabling for the purposes of connecting the synchronous compensator to the adjoining Clashavoon 220kV substation, does not fall within the scope of section 182A of the Planning and Development Act 2000, as amended.

9.0 Recommendation

I recommend that Enerco Energy Limited be informed that the proposed development comprising the installation of a synchronous compensator compound and associated ancillary equipment including a transformer, air compressor and cooling equipment, modular containers housing electrical and control equipment, security fencing and ancillary site development works and 110kV underground electricity cabling for the purposes of connecting the proposed synchronous compensator to the adjoining Clashavoon 220kV Substation, as set out in the plans and particulars received by the Board on 17th February, 2023, does not fall within the scope of s.182A of the Planning and Development Act, 2000 (as amended) and that a planning application should therefore be made in the first instance to Cork County Council.

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.

A. Considine
Planning Inspector
24th May 2023