



An
Bord
Pleanála

Inspector's Report ABP 306383-20

Development	220kV Shunt Reactor and associated equipment within the existing Ballyvouskill 220/110kV electricity substation.
Location	Caherdowney, Co. Cork.
Planning Authority	Cork County Council
Prospective Applicant	Eirgrid Plc
Type of Request	Section 182E request for SID pre-application consultation – whether project is or is not strategic infrastructure development.
Inspector	Pauline Fitzpatrick

1.0 Proposed Development

Eirgrid Plc proposes the following apparatus within the existing 220kV/110kV substation at Ballyvouskill:

- A 220kV Shunt Reactor unit (3 phases) measuring approx. 10 metres in height within an internal compound with a footprint of approx. 13m x 18m.
- Associated lightning monopole approx. 15 metres in height.
- Associated and ancillary substation apparatus, ranging 7-10 metres in height, including cable sealing ends, surge arrestor, coupling capacitor, combined CT/VT, post insulator and associated cabling within the substation compound.

A draft layout and typical elevations are provided.

A shunt reactor is a device used for reactive power compensation in high-voltage transmission lines and cable systems. The device improves the performance, quality and security of the transmission infrastructure system in an area.

Reactive power must be compensated and kept in balance to prevent unacceptably high voltage fluctuations or power failures. At times of high wind generation output, it is expected that wind generation will displace conventional generation on the system. As a consequence of this, at times of high wind, large bulk power flows are expected to flow from the west/south-west towards the large load centre on the east coast. System reinforcements are required to facilitate this west to east power flows. These reinforcements can be facilitated using shunt reactor technology to improve the networks power transfer capability.

The Shunt Reactor technology has the potential to reduce the need for other network reinforcements including new overhead lines and underground cables.

It is the prospective applicant's preliminary view that neither EIA or AA are required. It is acknowledged that this will be a matter for the consenting authority.

2.0 Applicant's Case

The proposed development is not considered to be strategic infrastructure given:

- While of considerable benefit to the transmission network, from a planning perspective the proposal is essentially an enhancement of the existing substation infrastructure.
- The development would not be of strategic, economic or social importance to the State or the region in which it would be situated.
- It does not meet any other provisions of Strategic Infrastructure Development as set out in Section 37 (A)(2) of the Planning and Development Act, 2000, as amended.
- The Board has determined that additional equipment which is an expansion or enhancement to established transmission infrastructures (substations and their compounds) did not fall within the scope of section 182A of the Planning and Development Act, 2000, as amended. Cases VC0040, VC0055, VC0061, VC0070, VC0101, VC0108, VC0109, VC0110, 300928, 301174 and 3030148 cited.

3.0 Legal Provisions

Under section 182A(1) of the 2000 Act (inserted by section 4 of the 2006 Act) 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.

Subsection 9 states that

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.

In section 2(1) of the Electricity Regulation Act, 1999, “transmission” is defined in relation to electricity as meaning

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.

4.0 Assessment

The Board is advised that there is a current section 5 referral case before it under ref. ABP 306431-20. The referrer is Eirgrid Plc. The question posed is whether or not the construction of 220kV shunt reactor apparatus and associated equipment within the existing Ballyvouskill 220/110kV electricity substation constitutes exempted development.

The Shunt Reactor development would appear to be a relatively new technology for the State’s transmission network although I note such technology is being used in the substation at Poolbeg in Dublin, a photograph of which is provided for illustrative purposes. In the circumstances the Board may consider a meeting with the prospective applicant justified to further investigate the technology. However, the Board will note previous decisions it has made on Strategic Infrastructure pre-application consultation requests in relation to electricity transmission infrastructure under section 182E of the Planning and Development Act, 2000, as amended involving amendments, additions and expansion of electricity substation infrastructure. On this basis I do not consider a meeting to be necessary in this instance and propose to proceed with this assessment on the basis of the information available.

In terms of the previous cases referenced above, due to the lack of clarity in the interpretation of section 182A and its requirements in regard to development of such a nature, the Board has exercised some discretion and used the broad definition of

the Strategic Infrastructure Act, “developments of strategic importance to the State”, and the criteria contained in section 37(A)(2) to determine such matters (noting that these criteria are not specifically cited for cases coming forward under section 182A).

I would accept that the proposed development is similar in certain respects to a number of previous proposals in other locations where the Board determined that additional equipment within or expansion or enhancement to established transmission infrastructure (substation and their compounds) did not fall within the scope of section 182A of the Planning and Development Act, 2000, as amended. I consider that the examples cited by Eirgrid are relevant in this regard. As per the details provided the apparatus would not be incongruous within the existing substation.

As per the Inspector’s report on file ref. ABP 301174 pertaining to the pre-application consultation for installation of STATCOM devices at the substation the Board is advised of the commitment in the Eirgrid’s Grid Development Strategy (Strategy Statement 3) to the use of new technology to optimise grid infrastructure to avoid construction of new lines and cables. This puts the upgrading of such facilities in a more strategic planning context. This would be pertinent having regard to the technology being introduced and its stated purpose. However, I do not consider that such would justify strategic infrastructure status in this case.

Having regard to the nature and scale of the proposed development relating solely to the provision of additional electrical equipment within the compound of the existing substation which would assist in strengthening grid capacity and reliability, to the stated purpose of the 2006 Act as set out in the long title and to the general description and scale of strategic infrastructure development set out in section 37A(2), 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.

I submit that this conclusion is without prejudice to the outcome in the referral case under ref. ABP 306431-20. Should the Board decide that the development is exempted development therein, it may consider it appropriate to advise the prospective applicant of same.

5.0 Recommendation

I recommend that Eirgrid Plc be informed that the proposed of 220kV Shunt Reactor and associated equipment within the existing Ballyvouskill 220/110kV electricity substation in the townland of Caherdowney in County Cork as set out in the plans and particulars received by An Bord Pleanala on the 8th day of January, 2020, does not fall within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made in the first instance to Cork County Council.

Pauline Fitzpatrick
Senior Planning Inspector

March, 2020