



An  
Bord  
Pleanála

## **Inspector's Report Strategic Infrastructure pre application consultation 303148-18**

### **Development**

Proposed installation of series capacitors at three existing 400kV electrical substation sites

### **Location**

Substations at Dunstown Co. Kildare, Carrowdotia South Co. Clare and Ballynaheskeragh Co. Galway.

### **Planning Authority**

Kildare, Clare and Galway County Councils.

### **Prospective Applicant(s)**

Eirgrid.

### **Type of Request**

Section 182E request for SID Pre-application consultation – whether project is or is not strategic infrastructure development.

### **Inspector**

Philip Green.

## 1.0 Proposed Development

1.1. Eirgrid propose series capacitor development at three separate established 400kV substation locations. These locations are the Dunstown 400kV substation (Co Kildare) on the Dunstown to Moneypoint 400kV circuit, Moneypoint 400kV substation (Co Clare) on the Moneypoint – Dunstown 400kV circuit and Oldstreet (Co Galway) 400kV substation on the Oldstreet to Woodland 400kV circuit. Works include

- Installation of three raised platforms approx.. 5m. high on top of which sits the capacitor devices with total height of approx.. 10m. and overall footprint of approx. 2400 sq.m. (30m. x 80m.) at Moneypoint and 1080 sq.m. (18m. x 60m.) at Dunstown and Oldstreet. The footprint is relative to the compensation required on the circuits;
- A number of protection devices for the capacitors located on the raised platform (within total height of 10m);
- Access ladders and safety railings;
- Lightning monopoles on or adjacent to the platform (up to 20m.)
- 400kv u/g or OH cable or line connection including circuit breaker equipment (up to 10m.) to connect the series capacitors to the overhead line circuit as it enters the substation
- Extension to existing compound and palisade fencing to facilitate siting of new series capacitor (and which will become part of the substation);
- Associated site and ancillary development including provision/replacement of equipment, laying or replacement of cables and diversion of existing cables, drainage, landscaping and access roads.
- Location maps, typical sections and elevations are provided with the request

It is stated that a series capacitor optimises reactive power on a transmission network. Reactive power must be compensated and kept in balance to prevent high voltage fluctuations or power failures. At times of high wind power generation conventional generation will be displaced and as a consequence large bulk flows will flow from west southwest towards the large load centre on the east

coast. Series capacitors will reinforce the system and facilitate these power flows and will improve the networks power transfer capability. It is noted that this is new technology introduced after significant study and investigation by Eirgrid, is used in other countries successfully and has potential to reduce need for other network reinforcement including new lines and cables and prevents constraints to wind generation. In regard to each of the three separate locations it is noted:

- **Dunstown Substation:** Located south east of Naas accessed via the R412 Regional Road. A largely rural area with agriculture predominant land use. There are single rural dwellings in a linear form along the surrounding road network. The village of Dunshane and Two Mile House are in proximity. The substation is well established and with mature screening. The series capacitors will be located within or adjacent to the substation and it may require an extension of its existing footprint. Its detailed siting location is currently being assessed (see aerial photograph).
- **Moneypoint Substation:** Site located east of Kilrush Co Clare. Substation is accessed by the N67 National Secondary Road. A largely rural area with industry being the predominant land use. Moneypoint Power Station is to the south. The village of Kilmer and ferry terminal is to the east. The substation is well established with mature screening. The series capacitors will be located within or adjacent to the substation and it may require an extension of its existing footprint. Its detailed siting location is currently being assessed (see aerial photograph).
- **Oldstreet substation:** The site is accessed via local roads from the N65 national secondary Road. Largely a rural area with agriculture being the predominant land use. There are single rural dwellings in a linear form along the surrounding road network. The substation is well established with mature screening. It is proposed to locate the series capacitor within or adjacent to the substation on its north eastern side. This may require an extension of its existing footprint. Its detailed siting location is currently being assessed (see aerial photograph).

- 1.2. Noted that all will be subject to detailed planning design prior to lodging of an application and to detailed screening assessments for the purposes of AA and EIA and it is the preliminary view that neither an AA or EIA will be required however this is a matter for the planning authority.
- 1.3. Although three separate projects at three separate locations being proposed given their similar nature a single pre application consultation request is being lodged. This is similar to an approach taken and accepted in respect of STATCOM devices in 3 proposed locations under Board reference 301174-18. These three projects will be progressed independently of each other either with the Board or with the local authority.

## **2.0 Applicant's case**

- 2.1. Whilst of considerable benefit to the transmission system from a planning perspective the proposed development is essentially an enhancement of the substation infrastructure predicated on need to optimise reactive power on the network, The proposed development would not be of a form or appearance entirely incongruous to the established substation infrastructure. The development would not be of strategic economic or social importance to the State or region in which it would be situated.
- 2.2. Board has previously considered that additional equipment which are expansions or enhancements to existing transmission infrastructure (substations and their components) did not constitute SI (number of examples cited) The most similar to this proposal is 301174-18 for STATCOM devices at three separate substations. Whilst it was acknowledged by the Inspector that Strategy Statement 3 of Eirgrid's grid development Strategy (2017) sought to use new technology to optimise the existing grid infrastructure to avoid construction of new lines and cables and which put such proposals in to a more strategic planning context it was considered that this did not justify designating the proposed developments as SI in the circumstances of the cases. This view was accepted by the Board. The prospective applicant also refers to case VC0108 relating to the uprating and refurbishment of the Great Island to Kilkenny 110kV line which although part of a 'Regional Solution' which would replace GridLink it was still not deemed by the Board as SI.

- 2.3. Given nature scale and function of the proposed development and critically their relationship to existing substations it is not considered that the proposed developments constitute SI under s. 182A. Nor would it meet any of the provisions for SI set out in s 37A(2).

### **3.0 Legal Provisions**

- 3.1. 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**

- 4.1. This pre application consultation request relates to three separate proposals for installation of similar series capacitor transmission infrastructure at three entirely separate existing 400kV substation locations. They are to be implemented as three independent projects. I consider that given their purpose, nature and scale that the Board can proceed to a determination on each project under the auspices of this single request in a similar fashion to that of case 301174-18 and can notify its decision to all three relevant local authorities without need for the formality of three separate consultation requests from Eirgrid. I consider sufficient details have been provided to identify the general location of each stand alone project.
- 4.2. I would have some concern that the details provided with the request are somewhat illustrative and indicative without a complete and definitive identification of the precise location, nature and extent of the proposed works. The developments would also appear to be new technology for the State's transmission network although Eirgrid have indicated its use in other countries (details not provided). In the circumstances the Board may consider a meeting justified with the proposed applicant to investigate further the nature of and experience gained of such technology. Given however expansion, addition and enhancement proposals to existing transmission infrastructure previously considered by the Board (including the STATCOM devices referred to) I do not consider this necessary in this instance and proceed with this assessment on the basis of the information available.
- 4.3. The Board will note previous decisions it has made on SI pre application consultation requests in relation to electricity transmission infrastructure under S.182E and involving amendments, additions and expansion of electricity substation infrastructure (including those cases referred to by the prospective applicants). In these cases due to lack of clarity in the interpretation of s.182A and its requirements in regard to developments of such a nature the Board has exercised some discretion and used the broad definition of the SI Act, "developments of strategic importance to the State", and the criteria contained in s.37(A)(2) to determine such matters (although not specifically cited in regard to cases coming forward under s. 182A).

- 4.4. 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 (substations 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. Furthermore the information provided although somewhat illustrative on the nature and extent of the works would not indicate a form or appearance of apparatus or structures that would be entirely incongruous within or in proximity to established sub station infrastructure.
- 4.5. I draw the Board's attention (as referenced in Eirgrid's submission on these cases) to the statement in EirGrid's Grid Development Strategy (Strategy Statement 3) to use new technology to optimise the existing grid infrastructure to avoid construction of new lines and cables which puts the upgrading of such facilities clearly in a more strategic planning context. This would be particularly pertinent having regard to the new technology being introduced and its stated purpose. However, I do not consider that such would justify in the circumstances of these cases, and notwithstanding extending the built form of the existing substations, giving the proposed developments, a strategic infrastructure status.
- 4.6. I do not consider that Eirgrid's reference to their preliminary screening decisions in regard to absence of need for EIA or AA to be critical in the statutory determinations to be made by the Board in this instance as to whether or not the proposed developments constitute strategic infrastructure.
- 4.7. Having regard to the nature and scale of the proposed developments and critically their relationship to existing substations, 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 developments consisting of the proposed installation of series capacitors at three existing 400kV electrical substation sites at Dunstown Co. Kildare, Carrowdotia South Co. Clare and Ballynaheskeragh Co. Galway do not fall within the scope of section 182A of the Planning and Development Act 2000, as amended.

## **5.0 Recommendation**

- 5.1. I recommend that Eirgrid be informed that the proposed developments consisting of the proposed installation of series capacitors at three existing 400kV electrical substation sites at Dunstown Co. Kildare, Carrowdotia South Co. Clare and Ballynaheskeragh Co. Galway as set out in the plans and particulars received by An Bord Pleanála on the 30<sup>th</sup> November 2018 do not fall within the scope of section 182A of the Planning and Development Act 2000, as amended, and that separate planning application should be made in the first instance to Kildare, Clare and Galway County Councils respectively.

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**Philip Green**  
**Assistant Director of Planning**

**15<sup>th</sup> February 2019**