

An  
Bord  
Pleanála

## Inspector's Report ABP-312203-21

<b>Development</b>	Installation of series capacitor equipment on the existing Moneypoint-Coolnabacky 400kV overhead lines.
<b>Location</b>	Townland of Garryduff, Co. Laois and Boolareagh, Co. Tipperary.
<b>Planning Authority</b>	Laois County Council
<b>Planning Authority Reg. Ref.</b>	Not applicable
<b>Applicant(s)</b>	Eirgrid
<b>Type of Application</b>	Pre-application Consultation under the provisions of S182E of the Act.
<b>Planning Authority Decision</b>	Not applicable
<b>Type of Appeal</b>	Not Applicable
<b>Appellant(s)</b>	Not Applicable
<b>Observer(s)</b>	Not Applicable
<b>Date of Site Inspection</b>	16 <sup>th</sup> March 2022
<b>Inspector</b>	Paul Caprani

## **1.0 Background**

- 1.1. Eirgrid have entered into a pre-application consultation with An Bord Pleanála under the provisions of S182E of the Act, where it specifically seeks advice as to whether the installation of a Series Capacitor along an existing 400kV overhead powerline (OHL) constitutes SID. Eirgrid initially requested that the Board issue a preliminary view in respect of the question before it, to enable the applicant to consider its options as to progress the development by way of a normal planning application under S.34 of the Act or whether to continue pre-application consultations with the Board under S182E of the Act.

It was initially proposed to install the Series Capacitor on the existing Moneypoint – Coolinabacky 400 kV OHL in the townland of Garryduff on the Laois / Tipperary border as per the pre-application consultation request lodged with the Board on December 15<sup>th</sup> 2021. The development on the original site of Garryduff, Co Laois was also presented at a pre-application consultation meeting held on the 22<sup>nd</sup> of March 2022. A subsequent letter received by the Board on May 23<sup>rd</sup> 2023, stated EirGrid had identified a more preferable site at Knockkyle near the intersection of the M7/M8, 16.1km north east of the original site at Garryduff. Eirgrid have requested that this site be considered instead of the original site and given that the nature and extent of the proposed development has not altered from that presented by the Board at the original pre-application consultation, the existing case reference can be used to close out the current pre-application process.

## **2.0 Site Location**

The original Garryduff compound is located in an area of deciduous woodland and natural scrubland in a relatively sparsely populated area c.3km south the M7 Motorway between Junction 21 (Borris-in-Ossory) and Junction 22 (Roscrea).

The revised location is in the Townland of Springfield/Knockkyle in Co Laois on agricultural pasture lands near the M8/M7 interchange within Co Laois, and also adjacent to the Laois - Moneypoint 400 kV OHL.

### 3.0 Proposed Development

- The Series Capacitor involves the provision of new equipment and infrastructure diverting off the existing 400kV line. The Series Capacitor will be located in a new compound (150m x185m).
- For the purposes of the Board's determination, the development is regarded as electric plant for optimising electricity transmission along the overhead line, and maximising the potential electrical transmission along the line; allowing it to transfer greater quantities of transmission output where demand is greatest in the eastern region. For all intents and purposes, the series capacitor will act as a 'booster' – enhancing electrical transmission along the OHL to the along the overhead power alignment to the east of Garryduff.
- Furthermore, the Series Capacitor will stabilise any fluctuations in energy inputs into the OHL network. This will ensure a consistent and balanced transmission of electricity will conveyed along the network whereby reactive power will be compensated and kept in balance to prevent high voltage fluctuations or power failures.

### 3.0 Precedent Decisions by the Board

In the case of **Reg. Ref. ABP 303148** a request was sought from the Board as to whether or not a number of Series Capacitors at three existing 400kV electrical substations sites at Dunstown Co. Kildare, Carrowdotia South Co. Clare and Ballynaheskeragh Co. Galway constituted strategic infrastructure development. The nature of the development under the previous application was essentially the same as that proposed under the current application. In the case of ABP 303148, the Inspector's Report concluded *'that having the regard to the nature and scale of the proposed development and critically (my emphasis) their relationship to existing substations..... that the proposed developments consisting of the proposed installation of series capacitors do not fall within the scope of section 182A of the Planning and Development Act 2000 as amended'*.

The Board concurred with the recommendation of the Inspector and determined that separate planning applications should be made to the respective County Councils.

Another relevant case which was recently determined by the Board was **ABP-312013**. This case related to whether or not a proposed new transformer compound at Lanesborough Co Longford (comprising of a control room structure, the installation of a 110:33kV transformer linking into an existing 110kV decommissioned but functional underground cable linked to the Lanesborough power plant and Landsborough Substation) to link a solar farm development to the national grid constituted SID? The inspector concluded that the proposed development will only serve the permitted solar farm development and will serve no function with regard to the operation of the transmission network and the report notes that such development does fall within the scope of section 182A of the Planning Act as it does not constitute 'transmission' as defined under section 182A(9) of the Act.

**Up-rating developments:** The Board has issued numerous precedent decisions in respect of the up-rating and refurbishment of powerlines for the purposes of ensuring that power flows along the transmission line do not exceed its thermal rating. This has involved the refurbishment of existing transmission lines with new conductors and insulation as required and the provision of additional lattice steel towers and wooden poles sets as required. References to the various precedent decisions are set out in the Table below:

ABP Ref.	County	Development Description	ABP Decision
311396	Mayo	Replacement of 13.86 of conductor along the existing Glenree- Moy 110kV circuit.	Not SID
311253	Galway & Roscommon	Refurbishment of the 220kV circuit between Cashla 220kV substation in and Flagford 220kv substation (c. 88km in length)	Not SID
310830	Mayo & Galway	Uprate of the 110kV circuit between Castlebar 110kV substation in Co. Mayo and Cloon 110kv substation in Co. Galway (c. 57km in length)	Not SID

309446	Donegal	Uprating of 110kV circuit between Binbane 110kV Substation and Cathaleen's Fall 110 kV Station, Co. Donegal (c. 45km in length)	Not SID
305276	Wexford	Refurbishment works to the existing Great Island - Kellis 220 kV Line (c. 70km in length)	Not SID
VC0108	Kilkenny	Uprate and refurbishment of the existing Great Island - Kilkenny 110kV Overhead Line substation in Co. Wexford & Co. Kilkenny (c. 49km in length)	Not SID
VC0106	Galway	Refurbishment of the existing Cloon to Lanesboro 110kV Overhead Line (c. 65km in length)	Not SID
VC0086	Clare & Galway	Uprating of the existing 400kV line between the Moneypoint power station, Kilrush in Co. Clare and Oldstreet Substation, Portumna, Co. Galway (c. 103km in length)	Not SID
VC0080	Kerry & Cork	Refurbishment and uprating of the existing 220kV line between the Knockanure substation in Co. Kerry and Ballyvouskill in Co. Cork (c. 63km in length)	Not SID
VC0079	Mayo	Refurbishment and uprating of the existing 110kv line between Bellacorick and Moy in County Mayo (c. 27km in length)	Not SID
VC0072	Mayo	Refurbishment and uprating of an existing 110kv circuit that runs from Bellacorrick to Castlebar in County Mayo (c. 20km in length)	Not SID

**Synchronous Compensator Compounds:** The Board have also made a number of relevant precedent decisions in respect of synchronous compensator compound and

associated ancillary equipment. The precedents referred to below were all located on or adjacent to existing substations. The purpose synchronous compensator compound and associated ancillary equipment is to provide inertia and reactive power that stabilises the grid during periods of fluctuation due to higher penetrations of renewable energy. Not unlike the uprating works on transmission lines, the synchronous compensator compounds enable existing transmission lines to better accommodate the fluctuating power levels from renewables. Relevant precedent decisions are set out in the table below:

<b>ABP Ref.</b>	<b>County</b>	<b>Development Description</b>	<b>ABP Decision</b>
310828	Fingal	The proposed installation of a Synchronous Compensator Compound at Belcamp.	Not SID
311174	Kerry/Cork & Tipperary	The provision of 3 separate STATCOM devices at existing substations in Ballyvouskill, Cork, Ballynahulla, Kerry and Thurles Tipperary	Not SID
311031	Cork	Development of an underground cable and on-site GIS Building to facilitate the operation of a Synchronous Compensator Compound at Knockraha.	Not SID
310256	Kildare	Development of an underground cable and on-site 220 kV substation to facilitate the operation of a Synchronous Compensator Compound at Knockraha.	Not SID

#### **4.0 Assessment of the Proposal in the Context of the Current Request**

In issuing a determination in respect of whether or not the proposed series capacitor constitutes SID, I would request that the Board be cognisant of the following:

According to the pre-application consultation undertaken with Eirgrid, the series capacitor has two primary functions:

- Firstly, to augment and maximise the potential electrical transmission along the line; allowing it to transfer greater quantities of transmission output where demand is greatest. This would involve the transfer of power along the network. It would boost the capacity of the transmission line, this in my view is a particularly important consideration having regard to the importance of the 400kV line in distributing power across the state. This could be construed in my view as being in accordance with definition of 'transmission' as set out in the section 2(1) of the Electricity Regulation Act as amended as it enhances "*the transport of electricity by means of a transmission system.... which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from generating station to substation, from one generating station to another from one substation to another or to or from any interconnector or to final customers*". EirGrid in the pre-application consultation emphasised this point and suggested that the proposal may fall within 'transmission' as defined in Section 182 A (9) of the Act as it will increase the transmission capacity of one of the primary 400 kV transmission networks within the state. However, the Board have already determined under ABP 303148 that a number of series capacitors along a 400kV line between Kildare and Galway did not constitute strategic infrastructure.

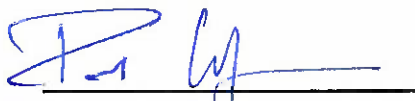
- Secondly the Series Capacitor facilitates stabilises any fluctuations or potential power failures in the 400kV OHL. In this regard the Series Capacitor would for all intents and purposes carry out a very similar function to a synchronous compensator Compounds associated with existing substations and uprating of existing transmission lines and circuits in that the Series Capacitor will enable the 400kV line to stabilise the transmission line in order to deal with surges in power. The Board have already determined that similar type synchronous condenser equipment which serves a similar purpose does not constitute strategic infrastructure.

Finally, and specifically in relation to the previously decision made by the Board in respect of the Series Capacitor, the Board are requested to note that the provision of a Series Capacitor is not connected with or predicated upon being co-located with any existing substation along the 400kV network. It comprises of a stand-alone development aimed specifically at enhancing and stabilising transmission along existing 400kV line. Therefore, the previous Board determinations that series

capacitors are in some way related to, or involves an alteration to an existing substation can be discounted for the purposes of the determination.

On the basis of the information above, I recommend that the Board that the development does not constitute strategic infrastructure and as such should be the subject to an application under the provisions of S34 of the Act to the Local Authority.

The fact that throughout the course of the pre-application consultation that the applicant has identified a new site for the same type of development has no bearing on the determination being placed before the Board. The nature of the development remains the same, and based on my assessment above, it is considered that the development does not constitute strategic infrastructure.



**Paul Caprani**

**Senior planning Inspector**

**30<sup>th</sup> May 2023**