

# Inspector's Report ABP-313680-22

**Development** Development of a 110kV substation

and grid connection serving a

proposed solar PV farm.

**Location** Blackwater Bog, near Shannonbridge,

Co. Offaly.

Planning Authority Offaly County Council

Planning Authority Reg. Ref. Not Applicable

Applicant(s) Bord Na Mona Power Gen Ltd.

Type of Application Pre-application Consultation.

Planning Authority Decision Not Applicable

Date of Site Inspection Inspected by M Daly - not P Caprani

Inspector (Reporting) Paul Caprani

#### 1.0 Introduction

1.1. The applicant intends to submit an application to Offaly Co Council for permission to develop a 160MW solar PV farm on lands formally used for peat extraction. It is proposed to construct a 110kV substation to transmit the generated electricity to the national grid at the 110kV/220kV substation at West Offaly Power Station at Shannonbridge. The connection will be via a 2.5km underground cable.

# 2.0 Site Location and Description

2.1. The proposed solar farm is located within an area of extensive cut-over bog in West Offaly. The Bog formally provided fuel to the West of Offaly (Shannon Bridge Power Station). The proposed substation is located near the southern end of the proposed solar farm. It will transfer electricity to the existing grid connection point located within the power station.

# 3.0 Proposed Development

3.1. The development relates to the provision of 110kV substation and the edge of the proposed solar farm and the provision of an underground cable c2.5km in length westward to the existing grid connection within the Shannonbridge Power Station.

# 4.0 Pre-Application Consultation Meetings

4.1. 3 pre-application consultation meetings were held in relation to the proposal.

The 1<sup>st</sup> meeting was held 04/08/2022. Discussions centred on the entire project ie the solar farm and the substation and the need for EIA etc.

The 2<sup>nd</sup> meeting also centred around the idea for EIA for the solar farm, particularly in the context for internal access roads and the felling of trees which could trigger the need for EIAR under the legislation.

The 3<sup>rd</sup> and final meeting centred around discussions as to whether or not the 110kV substation and cabling constituted a node on the network, as the substation would be tail-fed. The applicant argued that following consultation with Eirgrid, it was

concluded that the connection would not constitute a node on the National Grid and therefore does not fall within the definition of SID under S182A.

# 5.0 Precedent Decisions

There are a large number of precedent decisions in relation to developments of this nature, there are summarised in the table below:

ABP	Development Description	Decision Date	ABP Decision
Ref.			
313352	110kV substation and grid connection cabling	2022	Is SID
313001	110kV substation and underground grid connection.	2022	Is SID
312860	Proposed development of 110kV electrical substation and its grid connection options to the existing transmission network	2022	Is SID
312700	Proposed 110kV loop-in substation, overhead lines to connect to transmission network and underground grid connection to consented solar farm	2022	Is SID
312532	Proposed development of a 110kV on-site 'Loop-In/Loop Out' substation.	2022	Is SID
312249	Development of a 110kV substation and provision of electrical connection to the national grid	2022	Is SID
311904	Proposed new tail-fed 110kV substation and associated works.	2022	Is SID
311778	Provision of a 110kV GIS substation and associated development	2022	Is SID
311204	Proposed 110kV substation	2022	Is SID
311176	Proposed construction of two new 110kV substations and 110kV underground cable connecting both substations	2022	Is SID
311403	Proposed development of 110kV infrastructure	2022	Is SID

311032	Proposed new tail fed 110kV substation and 110kV underground cables	2022	Is SID
312226	Construction of a 110kV substation and underground grid connection.	2022	Is SID

The applicant as part of the letter seeking closure on the pre-application consultation referred to a number of cases (all of which were tail-fed extensions into substations) which it considered might also be relevant in assisting the Boards determination on the matter. These are set out below:

ABP Ref.	Development Description	Decision Date	ABP Decision
307022	Proposed 110kV underground cable to facilitate connection to a windfarm	2020	Not SID
306140	110kV substation bay and electrical connection	2020	Not SID
304789	110kV grid connection and substation connecting to a windfarm	2020	Not SID
301420	110kV substation and associated cable	2018	Not SID

# 7.0 Prospective Applicants Case

7.1. The applicant has initiated three separate meetings to date with the Board in relation to this prospective case. The initial two meetings primarily related to EIA issues surrounding the proposed solar farm. The third and final meeting primarily centred on the design of the substation and proposed grid connection. The applicant highlighted that the proposed substation would be tail fed in line with Eirgrid's 110kV station design standards for AIS stations and therefore the application suggested that the proposal would not form a node on the transmission network. On this basis the application intimated that the proposal may not constitute SID. A copy of an e-mail from Eirgrid was submitted with the letter requesting closure of the pre-app. This e-mail suggested that the tail station will not form part of the transmission system as it did not constitute a node on the network.

# 8.0 Legislative Provisions

#### 8.1. Planning and Development Act 2000, as Amended

8.1.1. Section 2(1) of the Planning and Development Act 2000, as amended ('PDA'), defines 'strategic infrastructure' as including, *inter alia*:

"any proposed development referred to in section 182A(1)"

- 8.1.2. Under subsection 182A(1) of the PDA, where a person (the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, the undertaker shall prepare, or cause to be prepared, an application for approval of the development under section 182B and shall apply to the Board for such approval accordingly.
- 8.1.3. 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."

#### 8.2. Electricity Regulation Act 1999, as Amended

8.2.1. The following definitions, as set out in section 2(1) of the Electricity Regulation Act, 1999, as amended ('ERA'), are noted:

#### '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<sup>1</sup> 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"

#### 9.0 Assessment

- 9.1.1. Under section 182A of the PDA 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 ERA 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.
- 9.1.2. Section 2(1) of the ERA defines the transmission system as a system which consists wholly or mainly of high voltage lines and electrical plant 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.
- 9.1.3. Based on the information contained in the prospective applicant's cover letter and elaborated upon at the pre-application consultation meeting, it is clear to me that the proposed 110kV substation and 110kV underground cable development which will connect a permitted solar farm to the national grid would constitute the 'transport of electricity by means of a transmission system' as defined in Section 2(1) of the ERA. It would also constitutes 'a high voltage line where the voltage would be 110kV

<sup>&</sup>lt;sup>1</sup> For clarity, references to the 'Board' in this instance relate to the Electricity Supply Board.

- *kilovolts or more*' and therefore can be considered to form part of the electricity transmission system for the purposes of the PDA.
- 9.1.4. I consider that the proposal meets the definition of electricity transmission under section 2(1) of the ERA. As such it would fall under section 182A of the PDA and would be deemed to be Strategic Infrastructure Development.
- I note the EirGrid correspondence provided by the prospective applicant which states 9.1.5. that the proposed substation will not form a node on the transmission system. Notwithstanding the opinion expressed by Eirgrid, it is nevertheless my considered opinion the proposed development does entail the transport of electricity by means of 110kV high voltage lines (underground cables in this instance), and therefore constitutes transmission. It note that Eirgrid, submitted a similar opinion in the case of ABP 311032-21 which also related to a similar tail-fed substation at Fieldstown Co Fingal. The Board nevertheless determined that the substation and underground cabling constituted SID. The applicant has made reference to a number of precedent cases determined by the Board which concluded that tail-fed substations did not constitute SID. While the conclusions and determinations reached by the Board in these cases are fully acknowledged, the Board should note that these are relatively older cases, dating from 3 to 5 years ago. In the more recent cases determined by the Board, there appears to be unanimity and consistency that both tail-fed and loopin/ loop-out substations fall within the scope of transmission and therefore fall within the scope of S182A of the Act.
- 9.1.6. I am therefore satisfied that the proposed 110kV substation and 110kV cable connection from the proposed solar farm to the existing Shannonbridge substation which connects directly into the grid, constitutes strategic infrastructure development.
- 9.1.7. 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.

#### 10.0 Recommendation

10.1. I recommend that Bord na Mona Powergen Ltd be informed that the proposed development for a proposed 110kV electrical substation and grid connection at Blackwater Bog Co Offaly falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board

Paul Caprani

Assistant Director of Planning

(Acting)

25th July 2023

## **Appendix A: Prescribed Bodies**

The following is a list of prescribed bodies considered relevant by the Board:

- Minister for Housing, Local Government and Heritage
- Minister for the Environment, Climate and Communications
- Offaly County Council
- Roscommon County Council
- Galway County Council
- Transport Infrastructure Ireland
- An Taisce
- Fáilte Ireland
- Heritage Council
- An Chomhairle Ealaíon
- Irish Water
- Commission for Regulation of Utilities
- Inland Fisheries Ireland
- Health Service Executive
- Office of Public Works

Further notifications should also be made, where deemed appropriate.