



An  
Bord  
Pleanála

## Inspector's Report ABP 321858-25

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### Development

Proposed design flexibility opinion on ABP-321855 for proposed development of tail fed substation and associated grid connection

### Location

Ballyloo, Linkardstown, Kiballyhue, Graiguenspiddoge, Castletown, Moyle Big, Kellistown West and Kellistown East, County Carlow.

### Planning Authority

Carlow County Council

### Prospective Applicant

Ballyloo Solar Farm Limited.

### Type of Application

S.182F Pre-application Consultation on Design Flexibility.

### Date of S.182F Pre-Application Meeting:

31<sup>st</sup> March 2025

### Date of Site Inspection

28<sup>th</sup> March 2025

### Inspector

Bríd Maxwell

## **1. Introduction**

- 1.1 This report relates to pre-application discussions held with Ballyloo Solar Farm Limited in respect of a proposed development which is to comprise of a tail fed substation and associated grid connection to connect to the existing 220/110kV Kellis Substation on lands at Ballyloo, Linkardstown, Kilballyhue, Graiguenspiddoge, Castletown, Moyle Big, Kellistown West and Kellistown East in County Carlow. The prospective applicant is seeking an Opinion on Flexibility from the Board. The request was received by the Board on 10<sup>th</sup> February 2025.
- 1.2 The Board's representatives met with the prospective applicant on one occasion in relation to the proposed development under section 182E of the Planning and Development Act. The presentation provided by the prospective applicant and written record of the meeting are on the said file. The Board's representatives also met with the prospective applicant on one occasion in relation to the requested Opinion on Flexibility. The presentation provided by the prospective applicant and the written record of this meeting are on this file.

## **2. Site Description**

- 2.1 The site of the proposed substation is located on agricultural lands approximately 2km to the south of the settlement of Tinryland, 5km south of Carlow Town and 1.6km to the north of the village of Nurney. The proposed substation is within the parcel of land for the proposed Ballyloo Solar Farm. The Commission should note that the Ballyloo Solar farm application was submitted to Carlow County Council under Section 34 of the Planning and Development Act 2000 (24/60043) and is currently subject of a first party appeal to the Commission following refusal by the local authority (ABP-322347). The proposed grid connection extends from the proposed substation eastwards to its termination at the existing 220/110kV Kellis substation which is circa 1.5km west of Rathtoe village and 5km west of Tullow. In terms of land use the area within which the proposed substation and grid connection are located is predominantly rural, agricultural with linear and scattered one off residential housing development. A number of quarries also noted within the wider area whilst I note that a number of solar farms have also been permitted in the locality.

2.2 The nearest European designated site is the River Barrow and River Nore Special Area of Conservation (SAC) (Site Code 002162) which is approximately 4km to the west of the proposed substation location. The area also has a rich cultural heritage with a number of recorded monuments including a cluster in close proximity to the proposed substation (Ballyloo Castle - Towerhouse CW012-031 and Bawn CW012-031001).

2.3 Road infrastructure in the area includes the M9 motorway (which runs to the north/northwest), N80 and Local roads L3050, L3052, L7148 and L3053. The Dublin Waterford railway line passes approximately 3km west of the proposed substation location.

### **3. Proposed Development**

3.1 The proposal comprises a tail fed substation with the associated grid connection comprising underground cabling which will connect into the existing 220/110kV Kellis Substation. The purpose of the proposed development is to transport the electricity generated at the proposed Ballyloo and permitted Park Solar farms to the national electricity grid. The electrical output of the two solar farms to be transported is expected to be in the region of 206MW.

3.2 The substation will be at either 110kV or 220kV voltage and will consist of both Eirgrid and Independent Power Producer (IPP) including IPP control room buildings, HV electrical equipment and associated infrastructure including palisade fences and concrete post and rail fences. If it is 110kV then it will use Air Insulated Switchgear (AIS). If it is 220kV then it will use either AIS or Gas Insulated Switchgear (GIS) depending on the requirements of Eirgrid. The installation of HV electrical equipment will include a transformer with associated equipment along with cable sealing end, surge arrestor, earth disconnect, current / voltage transformer, house transformer, circuit breaker, lightening mast, diesel generator, security fencing and cameras and drainage, access etc.

3.3 The operational lifetime of the solar farms is assumed to be 40 years, however following decommissioning of the solar farms it is envisaged that the substation and underground cable will remain in situ as a functioning and operational part of the electricity network managed by Eirgrid.

- 3.4 The substation will connect to the existing 220/110kV Kells substation via a proposed 110kV or 220kV underground grid connection cable. The overall length of the grid connection cable is approximately 9km. The route travels east from the proposed substation on the L3050 before turning north onto the L30504. It then crosses the N80 at Castletown Cross Roads and continues east on the L7148 before turning south onto the L3053. The cable would then turn east onto the L30535 which is the main road access to the existing 220/110kV Kells substation. There are two design route options proposed for the last circa 400m accessing the substation. One option is the L30535 local road and the other option is within privately owned agricultural lands.

## **4. Request For An Opinion On Flexibility**

### **4.1 Context**

- 4.1.1 The prospective applicant entered into pre-application discussions with the Commission under ABP-321855-25 with respect to the proposed development.
- 4.1.2 Design flexibility has been provided for under Section 182F in the case of applications for development comprising or for the purpose of electricity transmission. The provision acknowledges the dynamic nature of energy projects, changing technology and potential long lead in times between planning application and project implementation. The prospective applicant has submitted a request to the Commission for an opinion on flexibility under section 182F in respect of various elements of the proposed development as there are aspects of the proposed development that are unlikely to be confirmed at the time of the proposed application. The prospective applicant has submitted documentation to outline their reasoning behind the requested flexibility.

### **4.2 Request**

Section 182F material for formal consultation was submitted to the Board on 10<sup>th</sup> February 2025 including details prescribed in Form 20 as set out in the Planning and Development (Amendment) (No.3) Regulations 2023. The request included all relevant information as set out in Section 182F (2) of the Act, in order to assist the Board in informing its opinion, including:

- Name and address of the applicant,
- A site location map,
- Description of the nature and purpose of the proposed development and its possible effects on the environment,
- A draft layout plan of the proposed development,
- Details of the development which are considered unlikely to be confirmed at application stage and the need for flexibility for the following reasons:
  - The Ballyloo solar farm project is subject to a grid application being made to Eirgrid via the Electricity Connection Policy – Generation and System Services (ECP-GSS) 1 batch process that will open later in 2025. Eirgrid will assess the 'least cost technically acceptable' method of connecting the project to the national network. The expected point of connection will be the Kellis 220/110kV substation, however depending on the outcome of their studies, Eirgrid may conclude that the project should connect at either the 110kV side or the 220kV side of the Kellis substation. This will be dependent on factors such as space/bay availability on the 110/220kV busbars in Kellis, capacity of the 110kV and 220kV lines feeding power in and out of Kellis vis a vis the MW output of Ballyloo Solar Farm project and the interaction of the project with any other projects applying at the same time.
  - The decision between using AIS or GIS switchgear for the 220kV substation option will ultimately be dependent on the level of future expandability and number of bays that Eirgrid will require the Ballyloo solar farm substation to have prior to issuing a grid offer.
  - The existing Kellis substation is becoming a busy node on the network with multiple underground cable connections planned to travel up the L30535 public road to reach the substation. As it is a narrow, single lane road there may not be sufficient space for all cables to fit within the carriageway without derating effects occurring. Therefore the provision of an 'off road' route option in adjacent private lands to the east of the road is submitted as an option if required.

The following elements (details) of the development which relate to the point of connection at the Kellis 220/110kV substation are those for which flexibility is being sought:

	Option 1	Option 1b	Option 2	Option 2b
<b>Substation Design Options</b> <b>(3 design options Option 1, Option 2 or Option 2b)</b>	At 110kV voltage  Air Insulated (AIS) Switchgear	-	At 220kV voltage  Air Insulated (AIS) Switchgear	220kv Voltage  Gas Insulated Switchgear (GIS)
<b>Underground cable connection</b> <b>(2 no voltage design options and 2 design route options for the final 400m section)</b>	At 110kV voltage  Within the L30535 local road	At 110kV voltage  From L30535 entering onto private lands and crossing agricultural farmland into the existing 220/110kV Kellis substation	At 220kV voltage  Within the L30535 local road	At 220kV voltage  From L30535 entering onto private lands and crossing agricultural farmland into the existing 220/110kV Kellis substation

## 5. Consultation

- 5.1 One meeting was held with the prospective applicant's representatives on 31<sup>st</sup> March 2025. The presentation to the meeting and the meeting record are on the file. Issues raised at the meeting are identified and considered in Section 7 below.

## 6. Legislative Provisions

- 6.1 Planning and Development, Maritime and Valuation (Amendment) Act 2022

This Act, in recognition that certain applications require a degree of flexibility, introduced amendments to the Planning and Development Act 2000 (as amended) and the Maritime Area Planning Act 2021, to facilitate procedures that will enable planning authorities and the Board to consider design flexibility as part of the assessment of planning applications.

## **6.2 Section 182F Planning and Development Act, 2000 (as amended)**

This section of the Act sets out the requirements for requesting the Board to consider design flexibility, and the Board procedures for consideration of the request as part of the assessment of planning applications.

**Section 182F (1)** states that a prospective applicant who proposes to apply for approval under Section 182B or 182D may, before making such an application, request a meeting with the Board for the purpose of section 182G as part of consultations referred to in section 182E(1).

**Section 182F (2) (a-d)** lists the details required in the application. (incl. site location map, draft layout plan, brief project description & possible effects on the environment).

**Section 182F (2) (e)** requires a description of -

*(i) the details, or groups of details, of the proposed development that, owing to the circumstances set out in subparagraph (ii), are unlikely to be confirmed at the time of the proposed application, and*

*(ii) the circumstances relating to the proposed development, including such circumstances as the Minister may prescribe in relation to any class or description of development for the purposes of this subparagraph, that indicate that it is appropriate that the proposed application be made and decided, before the prospective applicant has confirmed the details referred to in subparagraph (i) including, in particular, whether the prospective applicant may be able to avail of technology available after making the proposed application that is more effective or more efficient than that available at the time of the application,*

**Section 182F (2) (f)** requires an undertaking to provide with the proposed application either—

*(i) two or more options in respect of each detail or group of details referred to in paragraph (e)(i), containing information on the basis of which the proposed application may be made and decided,*

*(ii) parameters within which each detail or group of details referred to in paragraph (e)(i) will fall and on the basis of which the proposed application may be made or decided, or*

*(iii) a combination of subparagraphs (i) and (ii),*

**Section 182F (2) (g-h)** lists other information that may be provided or prescribed.

**Section 182F (3)** provides for the Board to convene a meeting.

**Section 182F (4)** provides for the Minister to make regulations in relation to procedures and administration for the purposes of holding a meeting.

### **6.3 Circular Letter PL11/2023 – New Design Flexibility Provisions with regard to certain unconfirmed details as part of application for planning permission**

This document refers to the opinion on flexibility which developers may wish to avail of. It notes that applicants may wish to seek permission before certain details of the proposed development are confirmed. It provides an example of a windfarm and notes that details such as the precise height or blade length of a turbine or the precise grid connection point and route may not be confirmed at the time of application. In addition, it notes that the process is not intended to apply to points of detail generally dealt with by way of compliance condition and agreed between the applicant and the Board post-consent.

The document states that the applicant must set out the circumstances why it would be appropriate for the proposed application to be made and decided before the details are confirmed. It provides that a separate meeting may take place to discuss the flexibility request as part of the existing pre-application arrangements. It also states that existing consultations which may take place in advance of the flexible meeting request may concern the scope of details not likely to be confirmed at application stage and likely to be subject to a request for an opinion on unconfirmed details.



It further provides for matters of public notification and transparency in respect of the new arrangements and prescribes the forms to be used for the various stages of the process - flexible meeting request (Form 19); opinion on unconfirmed details issued by the Board (Form 20); and supplementary statement of unconfirmed details to accompany a planning application (Form 21).

## 7. Planning History/Precedent Cases

7.1 The following are two requests for opinion on design flexibility currently before the Commission for decision in relation to Section 182F provisions.

**ABP 322603-25:** Design Flexibility Request for the proposed construction of a grid connection substation and all associated developments, Co Meath (ABP-322056-24)

**ABP 322293-25** Design flexibility request for the proposed development of a grid connection at Ballyfasy Wind Farm, Co Kilkenny.

## 8. Assessment

8.1 The table below sets out the details and circumstances for section 182F flexibility requested by the prospective applicant as well as my consideration and recommendation in relation to the various elements.

Details / Groups of Details	Circumstances	Consideration	Accept Flexibility
Substation Design 110kV or 220kV AIS Switchgear or GIS Switchgear	The applicant has sought flexibility in determining the substation design. The Grid application process via ECP-GSS 1 batch process is yet to be completed. Connection at either 110kV or 220kV at the Kellis substation will depend on the requirements of Eirgrid. Options for AIS switchgear at 110kV and AIS or GIS switchgear at 220kV will depend on the future expandability and number of bays that Eirgrid will require in issuing grid offer.	I am satisfied that the flexibility sought in respect of the substation design which is dependent on technical and cost requirements of Eirgrid and with regard to space/bay availability on the 110kV and 220kV busbars in Kellis, capacity of the 110kV and 220kV lines feeding power in and out of Kellis vis a vis the MW output of Ballyloo solar farm and interaction of Ballyloo solar farm with other projects applying at the same time. Substations at either voltage use fundamentally the same	Yes

		<p>equipment except when using AIS switchgear the clearance distances between individual components becomes greater at 220kV therefore having a larger footprint. It is noted that the redline application boundary is identical for all options. The application documentation will present detailed parameters for the substation, buildings, HV electrical equipment transformer and associated infrastructure. I am satisfied that any future application can fully identify and assess any impacts that could arise from development of substation and grid connection at either voltage and incorporating AIS switchgear or GIS switchgear.</p>	
<p><b>Underground Cable Connection (Two voltage design options and two design route options for final 400m section)</b></p>	<p>Flexibility sought in relation to options underground cable connection at 110kV voltage and at 220kV. Route options relate to final 400m section where the route enters the existing 220/110kV Kellis substation. Option 1 situated within the L30535 which provides access to the existing 220/110kV Kellis substation. Option 2 is to leave the L30535 local road and enter onto private lands where it will cross agricultural farmland into the 220/110kV substation. Flexibility is sought as this section of L30535 is a narrow single carriageway lane and may not have sufficient space for all cables in carriageway without derating effects occurring.</p>	<p>Voltage design options are dependent on technical and cost requirements of Eirgrid and with regard to space/bay availability on the 110kV and 220kV busbars in Kellis, capacity of the 110kV and 220kV lines feeding power in and out of Kellis via a vis the MW output of Ballyloo solar farm and interaction of Ballyloo solar farm with other projects applying at the same time.</p> <p>Options for final section of c400m of grid connection are dependent on capacity within the L30535 and technical/spatial requirements to avoid derating. I am satisfied that the flexibility sought is reasonable and can be fully considered and assessed in any future application.</p>	<p>Yes</p> <p>Yes</p>

## **9. Conclusion**

9.1 Following the completion of the section 182F meeting on 31<sup>st</sup> March 2025, and having regard to the information provided by the prospective applicant in relation to the request for flexibility and to the circumstances which support this request, and based on my consideration of the request as set out above, I consider it reasonable that the following details/groups of details of the proposed development, may be confirmed after the proposed application has been made and decided by the Commission:-

1. Substation Design 110kV or 220kV, AIS Switchgear or GIS Switchgear
2. Underground Cable Connection  
(Two voltage design options 110kV/220kV and two design route options for final 400m section)

For each of the details or group of details listed above, the prospective applicant shall provide with the proposed application two or more options in respect of each detail or group of details and/or parameters within which each of the detail or group of details will fall.

Normal construction related details that are intrinsic to the installation of the infrastructure that are not clarified at the application stage should be set out and assessed in the application (including any EIAR & NIS), and subject to a compliance condition which could include the submission of a Construction and Environmental Management Plan (CEMP).

## **10. Recommendation**

I recommend that the following details of the proposed development may be confirmed after the proposed application has been made and decided by the Commission. The Commission should notify the prospective applicant of its Opinion in respect of flexibility under section 182G of the Planning and Development Act, 2000, as amended, in accordance with the following Draft Opinion.

1. Substation Design 110kV or 220kV, AIS Switchgear or GIS Switchgear

2. Underground Cable Connection  
(Two voltage design options 110kV/220kV and two design route options for  
final 400m section)

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.



**Brid Maxwell**

**Planning Inspector**

**25<sup>th</sup> June 2025**

## DRAFT OPINION

### An Coimisiún Pleanála Opinion on Flexibility

(1) Request for meeting	
<b>Request under section 182F of the Act:</b>	Request for Design Flexibility in relation to a proposed tail fed substation and associated grid connection to connect to the existing 220/110kV Kellis Substation.
<b>Request reference Number:</b>	ABP 321858-25
<b>Name of the requestor/prospective applicant:</b>	Ballyloo Solar Farm Limited
<b>Location, townland or postal address of the land or structure to which the application relates (as may be appropriate):</b>	Ballyloo, Linkardstown, Kilballyhue, Graiguenspiddoge, Castletown, Moyle Big, Kellistown West and Kellistown East, County Carlow
<b>Nature and extent of the proposed development:</b>	Tail fed substation with associated grid connection comprising underground cabling to connect into the existing 220/110kV Kellis substation.
<b>Date of receipt of the request:</b>	10 <sup>th</sup> February 2025
<b>Opinion Reference Number:</b>	ABP 321858-25
<b>Date of Opinion:</b>	

**(2) Was the following Information included where relevant, with the Flexibility Meeting Request under section 182F of the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended.**

Information	Enclosed with Request		
(a) A site location map sufficient to identify the maritime area/land on which the proposed development would be situated.	Yes: [ ✓ ]	No: [   ]	
(b) A brief description of the nature and purpose of the proposed development and of its possible effects on the environment.	Yes: [ ✓ ]	No: [   ]	
(c) A draft layout plan of the proposed development.	Yes: [ ✓ ]	No: [   ]	
(d) A description of the details, or groups of details, of the proposed development that, owing to the circumstances set out in (e) below, are unlikely to be confirmed at the time of the proposed application.	Yes: [ ✓ ]	No: [   ]	
(e) A description of the circumstances relating to the proposed development that indicate that it is appropriate that the proposed application be made and decided, before the prospective applicant has confirmed the details referred to in (d) above.	Yes: [ ✓ ]	No: [   ]	
(f) An undertaking to provide with the proposed application, either -  i. two or more options, in respect of each detail or group of details referred to in (d) above containing information on the basis of which the	Yes: [ ✓ ]	No: [   ]	

<p>proposed application may be made and decided,</p> <p>ii. parameters within which each detail referred to in paragraph (d) above will fall and on the basis of which the proposed application may be made and decided, or</p> <p>iii. a combination of (i) and (ii).</p>			
(g) Such other information, drawings or representations as the prospective applicant may wish to provide or make available.	Yes: [ ]	No: [ ]	N/A: [✓]
(h) The appropriate fee.	Yes: [✓]	No: [ ]	

**(3) Opinion of the Board under section 182G of the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended.**

Information	Details/ Circumstances
a) The details, or groups of details, of the proposed development that may be confirmed after the proposed application has been made and decided.	<p>1. Substation Design 110kV or 220kV, AIS Switchgear or GIS Switchgear</p> <p>2. Underground Cable Connection (Two voltage design options 110kV/220kV and two design route options for final 400m section)</p>
b) The circumstances relating to the proposed development that indicate that it is appropriate that the proposed application be made and decided before the	Recognition of the need to install project infrastructure efficiently within the context of specified parameters and options whose potential impacts will be set out and fully assessed within any future application documentation.

prospective applicant has confirmed the details referred to in paragraph (a) above.	
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**For each detail, or groups of details, referred to in paragraph 3(a) above, the proposed application shall, in addition to any other requirement imposed by or under the Planning and Development Act 2000, as amended, be accompanied by the information referred to in the undertaking submitted with the flexibility meeting request under section, 182F(2)(f) of the Planning and Development Act 2000, as amended.**

**The proposed application must be consistent with the opinion provided in accordance with section 182G of the Act.**