

Strategic Infrastructure Development – Consultation Document

Proposed 110kV Loop-in Substation in the
townlands of Loughlinstown and
Crickstown, Kilbrew, Ashbourne, Co.
Meath



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1. Introduction

1.1 Background

Kilbrew Eco Developments Ltd. has prepared this Strategic Infrastructure Development (SID) Consultation Document for a proposed 110kV loop-in substation (and associated infrastructure) which will connect to the existing Baltrasna – Corduff 11kV line via double circuit underground cable. The proposed development is located in the townlands of Loughlinstown and Crickstown, Kilbrew, Ashbourne, Co. Meath.

The proposed 110kV loop-in substation will be the point of connection for an already permitted solar development. A planning application for a solar PV development including a Battery Energy Storage facility (BESS) adjacent to the substation will be submitted to Meath County Council in July 2026.

The proposed substation will provide a connection point for the solar, BESS and other future renewable generation projects enabling future energy security and clean energy to the grid.

The detail and location of the proposed development (“the Site”) including the double circuit cable route is shown in Figure 1.



Figure 1

1.2 Planning Background

A company associated with Kilbrew Eco Developments Limited, Power Capital Renewable Energy Limited previously had consultations with the Commission in January 2022 for a proposed 110kV substation and associated 110kV cabling on the subject lands (**Reference ABP-312226-21**). Prior to closing that consultation, the original SID consultation request submitted was amended as shown in Figure 2 overleaf:

- the substation compound was relocated to the north east of the location shown in the original SID consultation request
- the grid connection route was amended; and
- the distance between the two new towers that will facilitate a loop-in/loop-out connection to the existing 110kV overhead line was increased and the route of the underground cables in the vicinity of the towers was adjusted accordingly

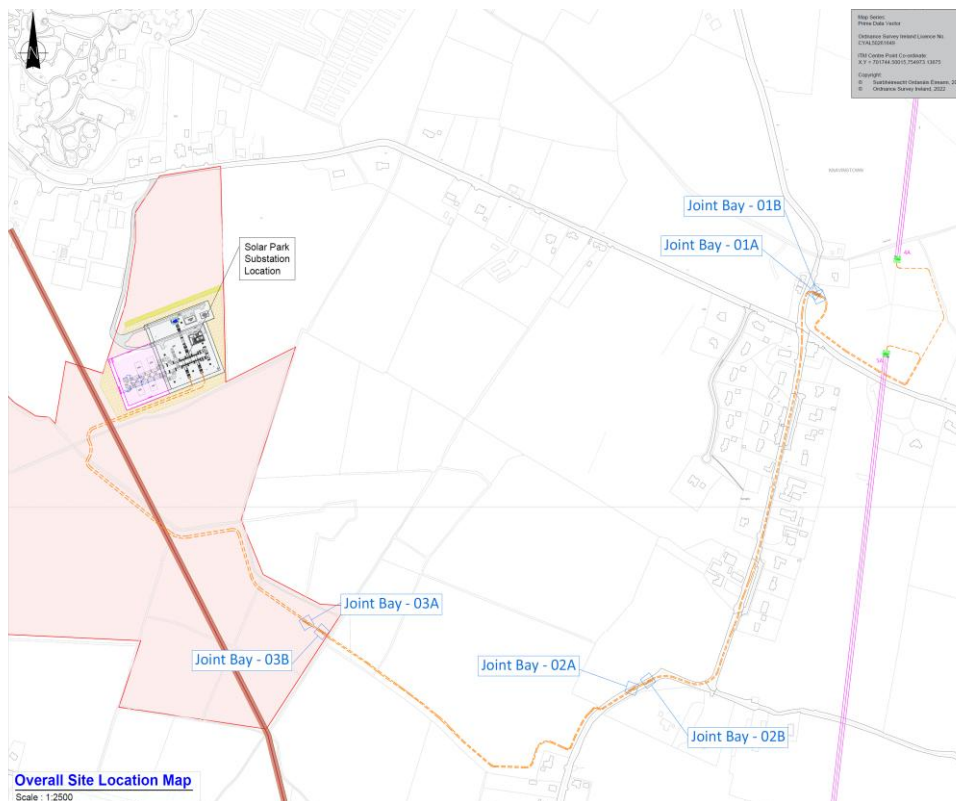


Figure 2

The Commission served notice on the 29th September 2022 that the proposed development falls within the scope of section 182A of the Planning and Development Act 2000, as amended and that it would be strategic infrastructure.

The location of the proposed substation and the method of connection to the grid are unchanged from that in the previous consultation as amended in advance of its closure.

1.3 Need for Proposed Development

Globally, there is clear recognition that action to mitigate climate change is necessary. This resulted in the Paris Agreement 2015 – an international effort to halt the global increase in temperature to below 2°C above pre-industrial levels. According to the Fifth Assessment Report (AR5) of the United Nations Intergovernmental Panel on Climate Change (IPCC), to achieve the 2°C objective, global GHG emissions must be reduced by 40-70% by 2050 compared to 2010 and be near zero by 2100 (IPCC, 2013). Key to achieving this level of emission reduction will be the preparation and implementation of low carbon development strategies. The EU target for 2030 is to achieve a 40% reduction in domestic GHG emissions compared to 1990 (EPA, 2015).

Renewable energy technologies play a vital role in the reduction of greenhouse gas (GHG) emissions. In Ireland, wind energy generated 28% of all electricity consumption in 2018, which is second only to natural gas (SEAI, 2020). However, 7% of electricity in Ireland was still generated by coal, the fuel with the highest GHG emissions as well as emissions of other pollutants, in 2018 (SEAI, 2019). It is paramount to transition to non-fossil fuel sources of electricity as fast as possible to achieve national (and international) GHG emission reduction goals.

The Department of Communications, Energy and Natural Resources (2015) White Paper on Energy titled Ireland's Transition to a Low Carbon Energy Future 2015-2030 reaffirms the Government's position on energy matters. The White Paper acknowledges that accelerating the development and diversification of renewable energy generation is essential to meeting its short, medium and longer-term objectives.

It is generally anticipated that Ireland did not meet these 2020 targets and therefore will be subject to major fines from the European Union. The EPA also recently reported that Ireland is not on track towards decarbonising the economy in the long term (EPA, 2019). Subsequently, steep challenges will have to be faced post-2020 as electricity demand is forecast to increase by 50% above existing capacity in the next decade. This is unless further measures are put into action beyond those currently in place (EPA, 2019). Ensuring we expand our renewable generation capacity to help meet this demand is essential. It makes economic sense and facilitates decarbonising our heating and transport through electrification.

The proposed 110kV substation will become a connection point to the National Grid in this region in Co. Meath for the associated proposed solar development and for future renewable projects in the area with the potential as operating as a node on the National Grid. Therefore, developments such as this are not only required but are also essential to achieving renewable energy goals and grid network security, but also to achieving the wider goal of decarbonising the economy in Ireland. It is considered that this project falls within the requirements of the Planning Development (Strategic Infrastructure Act 2006).

2. Proposed Development

2.1 Description of the Proposed Development

The proposed development will be a 0.17 ha compound site comprising of a C-type tail fed 110kV AIS substation housing the following main equipment elements:

- 1 no primary transformer
- 110kV AIS (Air Insulated Switchgear)
- IPP substation compound, control building housing necessary switchgear
- 110kV underground cables (double circuit) from IPP substation to 2 new Line Cable Interface Masts (LCIMs) located on the existing Baltrasna – Corduff 110kV circuit

On-site CCTV will be remotely monitored by a 24/7 operational team, who will alert relevant personnel in the event of a break-in or vandalism. The cameras will be focused along the fence line and will not be directed towards neighbouring dwellings. There is no proposal for artificial lighting on the site. Additional security measures include mesh security fencing and access gates for pedestrians and vehicles.

3. Existing Environment

3.1 Site Context

The proposed customer station is located approx. 2kms off the N2, just north of Ashbourne and Ratoath. It is also adjacent to the Emerald Park theme park and Largo Foods factory. A new shared access road is proposed adjacent to an existing industrial entrance to access the customer substation. The cable route will exit the substation and travel in a southeasterly direction within private lands for 1.5kms. It will then run northwards along the R155 Curragha Road for 0.31kms where the double circuit will split into different directions towards their respective LCIMs (mast). Circuit A will travel for a further 0.25kms in private land while Circuit B will travel further north along the R155 for 0.73kms before turning right into private land for a further 0.15kms.

The surrounding land use is primarily agricultural, with grass production and grazing activities.

3.2 Ecology

3.2.1 European & Nationally Designated sites

There are no designated SAC's or SPA's within 10km of the site location. The nearest designated site is 20.1km away, which is the River Nanny Estuary and Shore SPA.

Potential impacts of the proposed works on the River Nanny Estuary and Shore SPA were examined. Given the nature of the onsite habitats, the scale of the project, the distance from the SPA, and the absence of impact pathways, it was concluded that the proposed development will not result in any significant impacts, either directly or indirectly, on the conservation objectives of the SPA.

Considering all these factors, it can be concluded that activities associated with the proposed development, either alone or in combination with other projects or land uses, will not have any direct or indirect adverse impacts on the conservation objectives of the River Nanny Estuary and Shore SPA or any other Natura 2000 sites.

Site Name	Code	Distance (km)	Direction relative to the Site
River Nanny Estuary and Shore SPA	004158	20.1	NE

Table 1

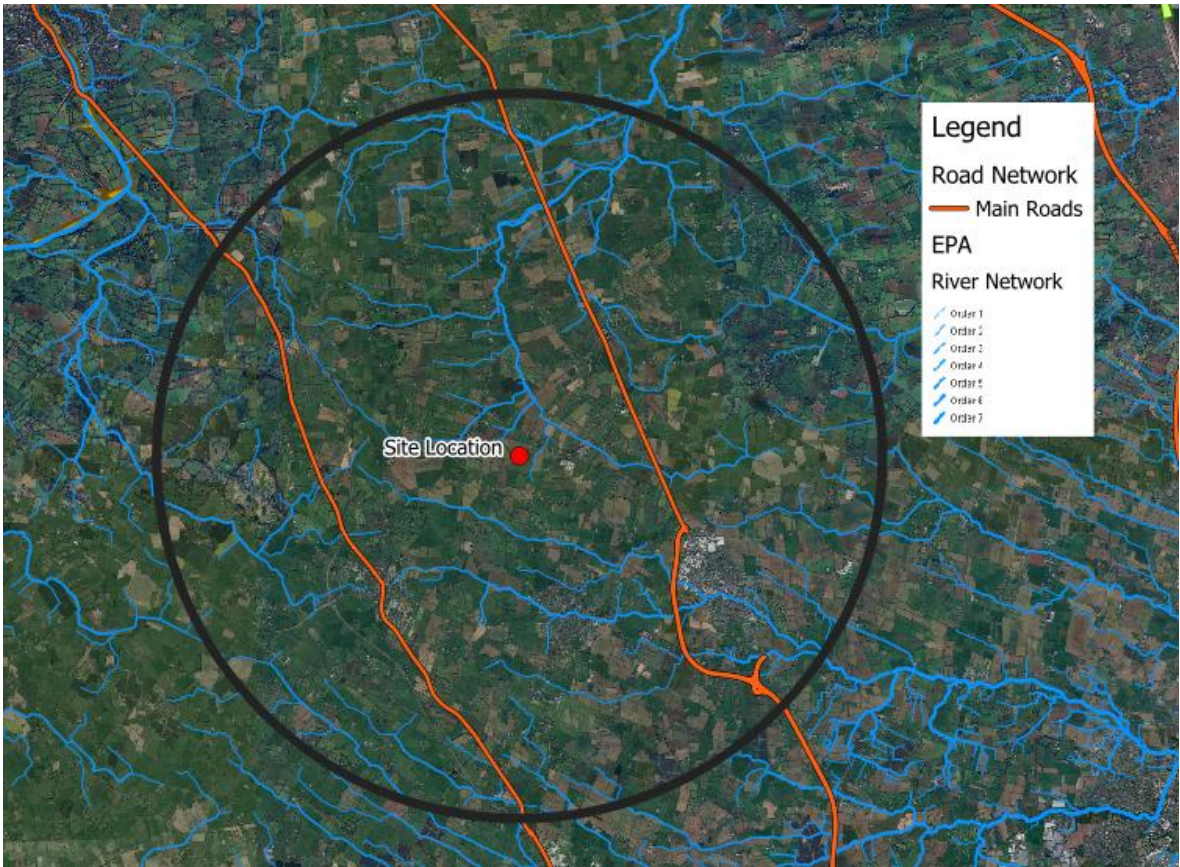


Figure 3

3.3 Drainage within the Site

The ground surface within the compound will be permeable paving and therefore the compound will not require any further drainage infrastructure.

3.4 Cultural Heritage

There is one archaeological monument present within the site boundary. This monument is a Ringfort, that is located on the inside edge of the site boundary.

4. Precedent Decisions

The following table outlines the previous decision precedents that Kilbrew Eco Developments Renewable Energy Ltd. considers to be relevant. This is particularly evident in recent precedents where Battery Energy Storage Systems (BESS) and 110kV substations have been classified as Strategic Infrastructure Developments.

Table 2 - Precedent Decisions

ABP Ref.	Location	Development Description	Decision Date	ABP Decision
312226	Loughlinstown and Crickstown, Kilbrew, Ashbourne, Co Meath	Construction of a 110kV substation, two tie-in masts and 110kV underground cable	21/09/2022	Is a Strat. Infrast. Dev.
322861	Ballynanelagh, Knockraha, Co. Cork.	Proposed development of a Battery energy storage system (BESS), a 110kV electrical substation building, and ancillary development.	04/11/2025	Is a Strat. Infrast. Dev.
320738	Mulhussey & Kilclone, County Meath	Proposed development of 220kV 'Loop in' Substation, Battery Energy Storage System, Overhead lines, and associated works	07/03/2025	Is a Strat. Infrast. Dev.

5. Conclusion

The need for climate change mitigation is recognized globally. The Irish government has confirmed a new target for at least 70% of Ireland's electricity supply to be generated from renewables by 2030, an increase from the previous target of 55% set in Project Ireland 2040. Achieving this target, given rising energy demand, will require significant progress and an increased deployment rate of all renewable electricity technologies. The Climate

Action Plan states that increased levels of renewable generation will require substantial new infrastructure, including grid infrastructure.

Ireland is currently not on track to meet these targets, and with increasing electrical demand, the need to expand and develop renewable energy generation is clear. The proposed loop-in substation will increase power capacity in the region and provide a connection point for future renewable projects in the wider Ashbourne and Ratoath region. Given the size and electricity generation potential of the proposed substation, the project meets the requirements of the Strategic Infrastructure Act 2006 and is appropriate for submission under the SID process.

6. References

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