

**Strategic Infrastructure
Development – Pre-Application
Consultation Document – Section
182E of Planning and Development
Act 2000, as amended**

**Proposed 110kV loop-in Substation
and 110kV OHL loop-in/loop-out
Grid Connection**

Knockdinnin Solar Farm Limited

Dromin, Co. Louth





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**Title: Strategic Infrastructure Development – Pre-Application Consultation Document,
Proposed 110kV loop-in Substation and 110kV OHL loop-in/loop-out Grid
Connection, Knockdinnin Solar Farm Limited, Dromin, Co. Louth**

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Document
Proposed 110kV loop-in Substation and 110kV OHL loop-in/loop-out Grid
Connection
Knockdinnin Solar Farm Limited
Dromin, Co. Louth**

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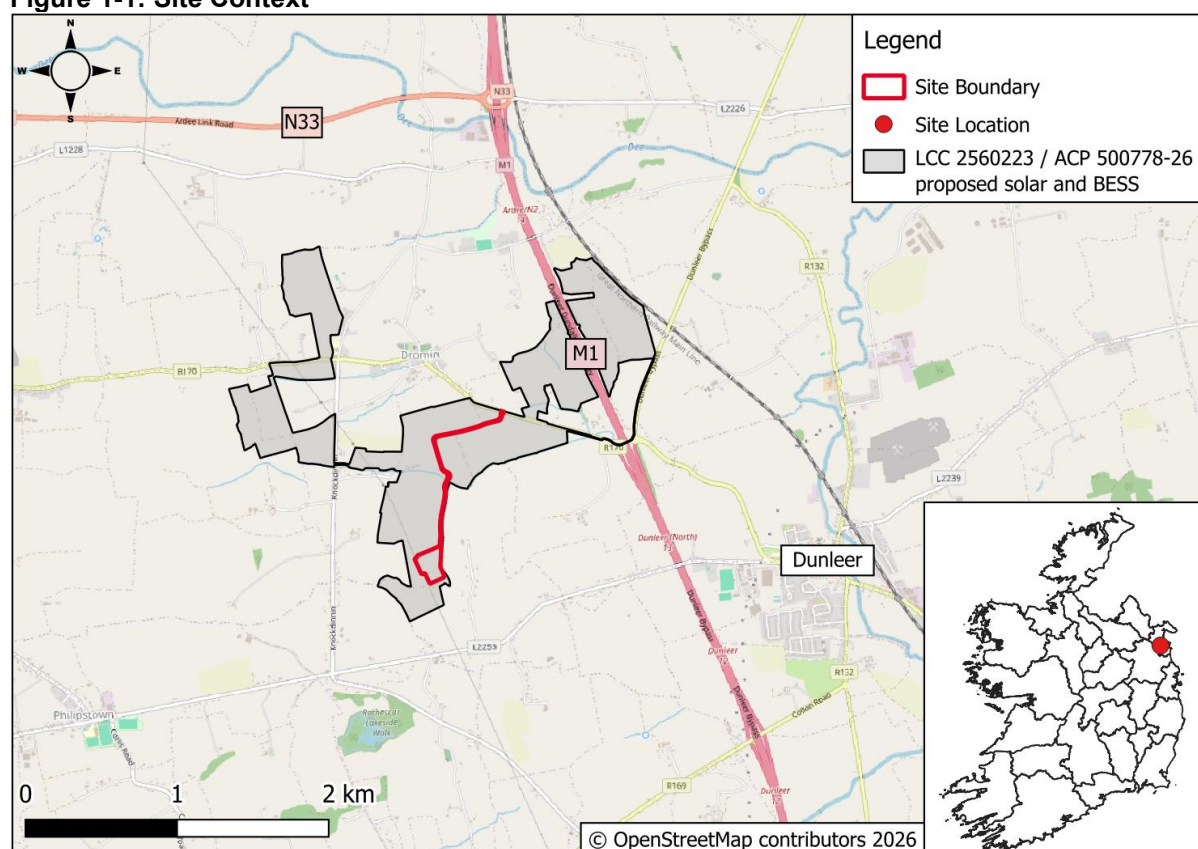
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1 INTRODUCTION

Malone O'Regan Environmental ('MOR Environmental') was commissioned by Knockdinnin Solar Farm Ltd ('the Applicant') to prepare a Strategic Infrastructure Development ('SID') Pre-Application Consultation Document for the Proposed Development of a new 110 kilovolt ('kV') loop-in substation and 110kV overhead line ('OHL') loop-in / loop-out grid connection (the 'Proposed Development') to the existing Drybridge-Louth 110kV OHL. The development is proposed to facilitate the connection of a proposed solar PV development and Battery Energy Storage System facility ('BESS') to the national grid. The Proposed Development will be located on a circa ('ca.') 3.7 hectare ('ha') site within the townland of Knockdinnin and Mooremount, Co. Louth, ca. 1.3km south of Dromin village ('the Site') (OS ITM Reference 702966 788051).

The location of the Site is shown in Figure 1-1.

Figure 1-1: Site Context



1.1 Report Objective

The Applicant wishes to arrange a SID pre-application stage consultation meeting under Section 182E of the Planning and Development Act 2000 (as amended) in order to progress with this application. The purpose of this Consultation Document is to provide An Coimisiún Pleanála ('ACP') with sufficient details to allow them to determine that the Proposed Development meets the criteria of SID.

1.2 The Applicant

Knockdinnin Solar Farm Limited is a subsidiary of Regnum Renewables Developments Ltd, which is a wholly Irish-owned renewable energy development company based in Ireland. The Regnum team has extensive experience in developing a variety of energy projects, including solar PV, battery storage and wind farms.

1.3 Planning Background

The Proposed Development will facilitate the connection of a proposed solar PV development and BESS to the national grid. The solar PV development and BESS facility was granted conditional planning permission on 26th January 2026 by Louth County Council ('LCC') (Planning Ref. 2560223). The decision was appealed to ACP by a third party on 13th February 2026, and a decision was due on 17th June 2026 (ACP Ref. 500778-26). ACP have since issued a letter indicating that the decision is now due on 8th September 2026. A summary of the solar PV and BESS development is provided below:

*The development will consist of the construction of a solar PV development and Battery Energy Storage System facility ('BESS') on a ca. 167ha site consisting of: Solar PV panels laid out in arrays across the Site on ground mounted frames, with string inverters attached to selected ground mounted frames; 12 No. transformer units; The battery energy storage compound consisting of 368 No. BESS modules; 1 No. transformer unit; 8 No. Power Electronic Compact Twin Skids; 1 No. Control Unit (ca. 12m²); 2m high landscaping berm and perimeter security fencing (2.4m high); Electrical and communications cabling within private lands and within the L2254, R170 and R211/R132 public roads; Pole-mounted security cameras; Perimeter security fencing (2m high) and security gates; Upgrade of 3 No. existing Site entrances; Development of 2 No. new Site entrances; 3 No. temporary construction compounds; 3 No. clear span bridges; Internal access tracks; and, All associated ancillary development, landscaping and reinstatement works. *Significant Further Information Received on 26/11/2025**

The proposed solar PV and battery storage facility qualified for a grid connection under an Enduring Connection Policy ('ECP') from EirGrid in November 2025, under EirGrid's Electricity Connection Policy – Generation and System Services ('ECP-GSS') GSS-1 batch. Given the qualification, the Applicant expects to receive an offer in September 2026, whereby they will have 60 days to formally accept the offer. However, it is important to note that the Applicant can only accept the grid connection offer where planning permission has been granted for the renewable generator.

1.4 Overview of Proposed Development

The Proposed Development will consist of a new 110kV loop-in Air-Insulated Substation ('AIS'). The new 110kV loop-in substation will connect to the existing overhead Drybridge-Louth 110kV line via two new 110kV OHL interface masts. An area will also be provided for future expansion of the substation.

As a 110kV loop-in substation, the Proposed Development will be a "node" and become part of the transmission system. The Proposed Development will be designed to be adaptable to become a meshed node or collector hub for the connection of other users and, more importantly, for extension and reinforcement of the transmission system. The Proposed Development will also be able to serve other renewable energy developments in the surrounding area that could use the 110kV loop-in substation. Any future renewable energy developments that will utilise this proposed new node will be subject to separate planning applications to the relevant competent authority.

1.5 Strategic Infrastructure Development

The Proposed Development will form part of the transmission system and become a node on the national grid for this region in County Louth, whilst also serving as the connection point for the associated proposed solar PV development and BESS facility and for future renewable projects in the area.

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

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

Under subsection 182A(1) of the 2000 Act, 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 Commission for such approval accordingly.

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.”

Section 182E(1) provides that a prospective applicant who proposes to apply for approval under section 182B or 182D shall, before making the application, enter into consultations with the Commission in relation to the Proposed Development.

Section 2(1) of the Electricity Regulation Act 1999, as amended ('1999 Act'), sets out the following definitions:

- '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 Commission 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 Commission.”

- 'Electric line':

“...has the meaning assigned to it by section 4(1) of the ESB (Electronic Communications Networks) Act 2014.”

The definition set out in s.4(1) of the 2014 Act is as follows:

“...any line which is used solely or amongst other things for carrying electricity for any purpose and as including –

(a) any support for any such line, that is to say, any structure, pole or other thing in, on, by or from which any such line may be supported, carried or suspended,

(b) any apparatus connected to or associated with any such line for the purpose of carrying electricity or electronic communications services, whether such apparatus is owned by the Commission or by any company referred to in section 2 or by a company which has been provided access or services referred to in section 3, or

(c) any wire, cable, tube, pipe or similar thing (including its casing or coating) which is used for the purpose of carrying electricity or electronic communications services and which surrounds or supports or is surrounded or supported by, or is installed in close proximity to, or is supported, carried or suspended in association with, any such line.”

- '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"
- 'Distribution':
"...the transport of electricity by means of a distribution system, that is to say, a system which consists of electric lines, electric plant, transformers and switchgear and which is used for conveying electricity to final customers".

The definition of 'strategic infrastructure' includes development comprising or for the purposes of electricity transmission, with 'transmission' defined as either:

- The transport of electricity by means of a high voltage line of 110 kV or more, or an interconnector; and,
- The transport of electricity by means of a transmission system (a system of high voltage lines and electric plant 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, including interconnectors but excluding distribution system lines).

The Proposed Development entails the construction of an electrical plant in the form of a new 110kV loop-in substation and for the transport of electricity at a high voltage (110kV) via interface masts to an existing 110kV overhead line for the purpose of transmission. For that reason, as set out in section 2(1) of the Electricity Regulation Act, 1999, as amended, the proposal forms part of the transmission system. It therefore follows that, as set out in section 182A(1) of the Planning and Development Act, an application for approval of the development shall be under section 182B and shall be made to ACP.

Therefore, it is inferred that the Proposed Development falls within the scope of section 182A of the Planning and Development Act 2000, as amended.

1.6 Environmental Impact Assessment Screening

In the determination of whether an Environmental Impact Assessment ('EIA') is necessary, the EIA Directive establishes a distinction between projects that inherently necessitate a mandatory EIA and those for which an EIA might be required if they are expected to result in significant environmental effects. These projects are categorised in Annex I and Annex II of the EIA Directive, respectively. In Irish legislation, Annex I and Annex II type projects are transcribed as Part 1 and Part 2 of Schedule 5 of the Planning and Development Regulations, 2001 (as amended).

The Proposed Development does not fall within the scope of activities listed in Part 1 of Schedule 5, and a mandatory EIA, as classified under Annex I, is not required.

The EIA screening report submitted for the proposed solar PV and BESS development (LCC Ref. 2560223 / ACP Ref. 500778-26) concluded that when the Proposed Development was considered cumulatively alongside the solar / BESS, it did not meet the criteria where a sub-threshold EIA would be warranted, as no likely significant effects were identified.

1.7 Need for the Development

Globally, there is clear recognition that action to mitigate climate change is necessary. This initially led to the Paris Agreement (2015) – an international effort to limit the global increase in temperature to 2°C above pre-industrial levels. According to the Sixth Assessment Report ('AR6') of the United Nations Intergovernmental Panel on Climate Change ('IPCC'), to keep the temperature increase below 2°C, global greenhouse gas ('GHG') emissions must be reduced by 40-70% by 2050 compared to 2010 and be near zero by 2100 [1]. Key to achieving this level of emissions reduction will be the preparation and implementation of low-carbon development.

At the 2025 United Nations Climate Change Conference ('COP30'), the participating countries reaffirmed earlier commitments under the Paris Agreement (2015) to the goal of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. There was also recognition that limiting global warming to 1.5°C requires rapid, deep and sustained reductions in global GHG emissions, including reducing global carbon dioxide emissions by 45% by 2030 relative to 2010 levels and reaching net zero around mid-century, as well as deep reductions in other greenhouse gases.

Renewable energy technologies play a vital role in reducing GHG emissions. In Ireland, wind energy generated 32.1% of all electricity supply in 2024, which was second only to natural gas, which generated 41.8% of Ireland's electricity [2]. However, as of 2024, 1.7% of electricity in Ireland was still generated by coal, the fuel with the highest GHG emissions, as well as emissions of other pollutants [2]. It is paramount to transition to non-fossil fuel sources of electricity as fast as possible to achieve national (and international) GHG emissions reduction goals.

Ireland had an overall target of 16% of gross final energy consumption to come from renewable energy sources by 2020 [3]. This was to be achieved by 40% from renewable electricity, 12% from renewable heat, and 10% from renewable transport. Ireland did not meet the 2020 overall renewable energy target. The overall share of renewable energy was 13.5% compared to the target of 16%. Ireland succeeded against its EU 2020 renewable energy target for transport (10.2% vs. 10%) and just missed its renewable energy target for electricity (39.1% vs. 40%). Ireland achieved just half its 2020 renewable energy target for heating and cooling (6.3% vs. 12%). Energy from renewable sources grew by 8.9% in 2020 [2].

The Environmental Protection Agency ('EPA') also recently reported that Ireland is not on track towards decarbonising the economy in the long term [4]. As it stands, Ireland is not on course to achieve its short-term or long-term climate goals, and steep challenges will have to be faced by 2050 [3]. We now have some of the most demanding decarbonisation targets globally, with the necessity to halve emissions by 2030 and reach net-zero by 2050 now enshrined in Irish law [2].

Developments such as the Proposed Development are not only essential to achieving renewable energy goals but also to decarbonising the Irish economy.

1.7.1 European Context

1.7.1.1 EU Renewable Targets

The EU wants to accelerate the take-up of renewables to contribute to and reach the goal of reducing net greenhouse gas emissions by at least 55% by 2030.

Increasing the share of renewable energy across the different sectors of the economy is therefore a key building block to achieving the EU's energy and climate objectives, cutting greenhouse gas emissions by at least 55% (compared to 1990) by 2030 and becoming a climate-neutral continent by 2050.

Developments such as the Proposed Development are not only essential to achieving renewable energy goals but also to meeting the wider EU renewable energy targets.

1.7.1.2 The Climate and Energy Policy Framework 2030

The Climate and Energy Policy Framework 2030 [5] includes EU-wide targets and policy objectives for the period between 2021-2030. It seeks to drive continued progress towards a low-carbon economy, build a competitive and secure energy system that ensures affordable energy for all consumers, and increase the security of the EU's energy supply. It sets targets for at least a 40% reduction in greenhouse gas emissions (with a goal of at least 55%) and for at least a 32% share of renewable energy in all energy consumed in the EU by 2030.

1.7.1.3 Revised Renewable Energy Directive 2023/2413/EU (December 2021)

In October 2021, the recast Renewable Energy Directive 2023/2413/EU came into force as part of the 'Clean Energy for All Europeans' package, aimed at keeping the EU a global leader in renewables and, more broadly, helping the EU meet its emissions reduction commitments under the Paris Agreement. Building on the 20% target for 2020, the recast Renewable Energy Directive 2023/2413/EU established a new binding renewable energy target for the EU for 2030 of at least 42.5%, with an additional aspirational target of 45%.

1.7.2 National Context

1.7.2.1 The White Paper 'Ireland's Transition to a Low Carbon Energy Future 2015-2030'

The White Paper 'Ireland's Transition to a Low Carbon Energy Future 2015-2030' [6] is the Government's Energy Policy Framework, which sets out the policies in the energy sector and the actions required by the Government of Ireland until 2030.

One of the actions set out by the White Paper is to improve Ireland's energy efficiency and develop Ireland's indigenous energy supplies. In order to do this, measures to maintain and enhance energy security will be put in place, including:

- *'Diversifying energy supply to include more renewables, which reduce the reliance on imported fuels;*
- *Promoting competitive markets and facilitating commercial investment through policy and regulatory certainty;*
- *Supporting regional, EU and international cooperation to develop energy security initiatives;*
- *Greater deployment of sustainable energy initiatives and technology;*
- *Promoting and facilitating interconnection with other countries and regions;*
- *Maximising strategic stocks of oil and gas held on the island; and,*
- *Enhancing energy storage.'*

1.7.2.2 The National Planning Framework – Project Ireland 2040

The National Planning Framework ('NPF') First Revision is a high-level strategic plan to shape the future growth and development of the country to 2040 [7]. It is focused on delivering ten National Strategic Outcomes ('NSOs').

NSO 8 focuses on the '*Transition to a Carbon Neutral and Climate Resilient Society*' and recognises the need to harness both on-shore and off-shore potential from energy sources, including solar and deliver 80% of our electricity needs from renewable sources.

Transitioning to a low-carbon and climate-resilient society and achieving sustainable mobility are vital strategic outcomes identified in the NPF. This reflects the Government's 2014 National Policy Position on Climate Action and Low-Carbon Development, which establishes the fundamental national objective of achieving the transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050 [8].

In addition, various policies in the NPF are structured under National Policy Objectives ('NPOs').

NPO 70:

"Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a climate neutral economy by 2050."

NPO 71:

"Support the development and upgrading of the national electricity grid infrastructure, including supporting the delivery of renewable electricity generating development."

1.7.2.3 The National Development Plan

The National Development Plan ('NDP') 2021–2030 is the "largest and greenest" NDP to date and includes major commitments to climate action, explicitly supporting increased renewable electricity generation and infrastructure investment. It commits Ireland to increasing the share of renewable electricity up to 80% by 2030, along with extensive funding for grid reinforcement, which is necessary to connect large volumes of renewables. By prioritising investment in transmission infrastructure and renewable energy integration, the NDP directly supports projects such as this, which will contribute to national decarbonisation and grid-resilience objectives.

1.7.2.4 Climate Action Plan 2025

In 2025, the Government of Ireland released the Climate Action Plan 2025 - Changing Ireland for the Better, a plan which sets out a major programme of change. It outlines the current state of play across key sectors, including Electricity, Industry, Built Environment, Transport, Agriculture, Forestry and the Marine Environment and charts a course to achieve an ambitious net zero emissions target by 2050 [9]. The plan commits to evaluating in detail the changes required to adopt such a goal in Ireland.

Decarbonising electricity is at the centre of the Climate Action Plan strategy, as it will also aid the decarbonisation of other sectors, such as transport, heating and industry. The share of electricity from renewable energy increased from 7.2% to 40.7% between 2005 and 2023 [9]. Demand for electricity is forecast to increase by 19% to 50% above existing capacity over the next decade, in line with economic forecasts. Ensuring we build renewable rather than fossil-fuel generation capacity to help meet this demand is essential. It makes economic sense and also facilitates decarbonising our heating and transport through electrification. It is planned to increase the proportion of renewable electricity to up to 80% by 2030, and a target of 8GW from solar by 2030 [9].

The renewables sector is highly dynamic, with technologies still evolving rapidly. Ensuring increased levels of renewable generation will require substantial new infrastructure, including wind and solar farms, grid reinforcement, storage developments, and interconnection:

"A renewables-led system is at the core of Ireland's plan to radically reduce emissions in the electricity sector, protect our energy security, and ensure our economic competitiveness. This requires the accelerated and increased deployment of new renewable electricity generation capacity and related infrastructure."

CAP25 notes that works to reinforce the electricity grid will be required to ensure it has the capacity to accommodate the increased renewable energy generation.

1.7.3 Regional Context

1.7.3.1 Regional Spatial and Economic Strategy for the Eastern and Midland Region

The Regional Spatial and Economic Strategy for the Eastern and Midland Region ('RSES') provides a Climate Action Strategy to accelerate climate action, ensure a clean and healthy environment, and promote sustainable transport and strategic green infrastructure.

The RSES recognises that the key challenge facing the Region, along with all other regions, is the transition to a low-carbon society. For the RSES, this means five primary areas of transition, which are at the core of the Strategy:

- Sustainable development patterns which promote compact growth, reduce transport demand and encourage low-carbon transport modes;
- Sustainable transport systems (people and freight);
- Carbon storing and sequestering land uses;
- Energy efficient buildings and industry; and,
- Renewable energy.

The RSES outlines the following Regional Policy Objectives ('RPOs'):

- **RPO 10.20:** Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner, subject to appropriate environmental assessment and the planning process; and,
- **RPO 10.22:** Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/distribution of a renewable energy-focused generation across the major demand centres to support an island population of 8 million people, including:
 - Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner.

1.7.4 Local Context

1.7.4.1 Louth County Council Development Plan ('CPD') 2021-2027

The core objective of the Louth CDP [10] is to demonstrate consistency with higher-order spatial plans at a national and regional level.

At the outset, the CDP highlights the increased emphasis on several key issues, including renewable energy.

Amongst the Strategic Objectives of the CDP are:

Strategic Objective 4, which seeks to:

"Transition to a low carbon and climate resilient County supporting energy efficiency and reducing energy demand, through a combination of mitigation and adaptation

responses to climate change. This includes for increased usage of renewable energy through developing indigenous energy resources, supporting the transition to a low carbon economy by 2050, and ensuring flood risk management. The Council will work with other bodies and organisations as appropriate, to identify and help protect critical infrastructure.”

Strategic Objective 5, which seeks to:

“Ensure a more sustainable and integrated concept of development with regard to land use, transportation, water services, energy supply and waste management over the lifetime of the Plan”

Strategic Objective 13, which seeks to:

“Support the sustainable development of rural areas that are under strong urban influence to avoid over-development, while sustaining vibrant rural communities.”

Strategic Objective 19, which seeks to:

“Afford suitable protection to the environment and natural resources of the County and ensure the fulfilment of environmental responsibilities.”

There are a number of specific CDP objectives which support the Proposed Development, including.

- **IU 79:** To support and facilitate the reinforcement and development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the County and Region. This will include the delivery of the necessary integration of transmission network requirements, facilitating linkages of renewable energy proposals to the electricity and gas transmission grid, in a sustainable and timely manner, subject to appropriate environmental assessment and the planning process; and,
- **IU 84:** To support Eirgrid’s Implementation Plan (2017-2022) and the Transmission Development Plan (2016) and any subsequent plans prepared during the lifetime of this Plan, subject to appropriate environmental assessment and the planning process.

2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Description of the Proposed Development

While the final design is yet to be finalised, it is anticipated that the Proposed Development will comprise:

- Site entrance from R170;
- Internal Site access tracks;
- EirGrid control building;
- Independent Power Producer ('IPP') control building;
- Diesel tank and generator;
- One 110kV transformer;
- Associated electrical apparatus, plant and equipment including surge arrestors, disconnects, combined current / voltage transformers, circuit breakers, busbar, two gantries, neutral earthing resistor, interface kiosk and internal cabling;
- Two 10m conductor attachment height gantries (total height 15m) to terminate the Drybridge – Louth circuit;
- 110kV OHL 'loop-in/loop out' grid connection to the existing Drybridge-Louth 110kV OHL via two new 110kV OHL Interface Masts;
- 18m lightning masts;
- Lighting poles;
- Telecom Pole;
- Palisade fence;
- Concrete post and rail fence;
- Drainage (including surface water and foul wastewater drainage);
- Temporary site construction compound (41m x 63m) of level crushed rock base; and,
- Temporary crane hard stands for tower lifts (30m x 20m) and two laydown areas (25m x 15m each).

CCTV

There will be on-site CCTV, which will be remotely monitored by a 24/7 operational team that will alert all relevant personnel in the event of a break-in or vandalism at the Site. The cameras will be focused only on the new 110kV loop-in substation and will not focus on any neighbouring dwellings.

Fencing

The switchyard will be enclosed in a palisade-type security fence. A deer-proof perimeter fence will be installed to provide security and restrict access. The fence will, however, be fitted with small mammal gates (300mm x 150mm) at appropriate points to enable wildlife, such as rabbits, badgers and foxes, to move freely throughout the landscape.

2.1.1 Earthworks

It is estimated that ca. 2,465m³ of cut and ca. 2,514m³ of fill will be required to develop the Site. The detailed design of the new 110kV loop-in substation will determine the extent of the

earthworks. However, it would be expected to comprise a concrete foundation for the transformer and electrical equipment, with the rest of the area filled with crushed rock.

2.1.2 Drainage

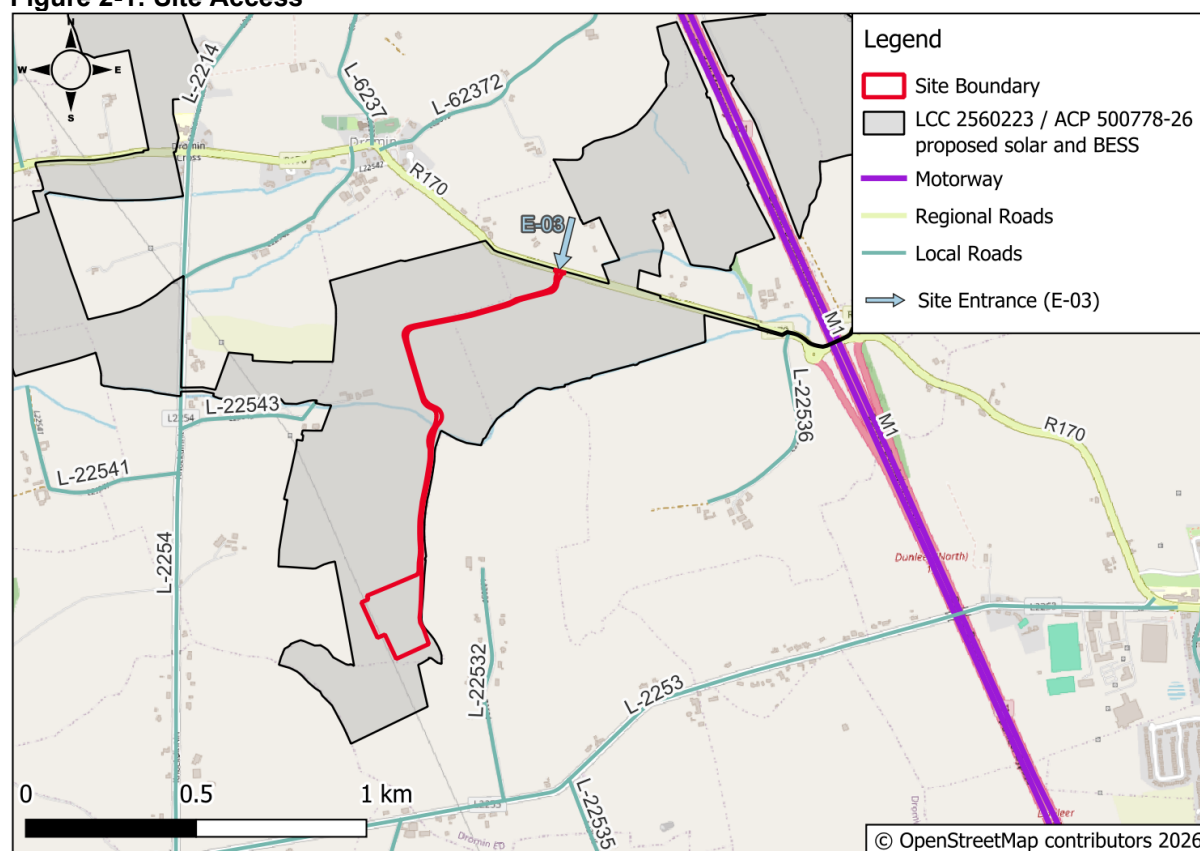
The Proposed Development will not require any alterations to an on-site drainage regime.

Only small areas of the Site will comprise hardstanding; it is not considered that any alteration to the existing drainage at the Site will be required. Furthermore, the majority of on-site surfaces will be permeable, allowing rainwater to percolate directly into the ground. As the welfare facilities will be infrequently used, it is proposed that they will be connected to a holding tank. All waste collected in this holding tank will be removed frequently by a suitably licensed waste contractor. Rainfall runoff from the roof of the control buildings will be collected and piped to a rainwater harvesting tank for reuse in the onsite toilets. In summary, no specific drainage infrastructure will be required for the Proposed Development.

2.1.3 Site Access

The Site is currently accessed via the existing agricultural site entrance on the R170. This road runs northwest to southeast and is situated north of the Site. It is proposed to upgrade the existing entrance as part of the proposed solar farm and BESS development (LCC Ref. No. 2560223 / ABP Ref No. 500778-26). It is proposed that the upgraded entrance will be used to access the new 110kV loop-in substation during the Construction and Operational Phases. A network of access tracks will be utilised, as proposed under the application for the solar farm and BESS development (Louth County Council Ref No. 2560223 / ABP Ref No. 500778-26).

Figure 2-1: Site Access

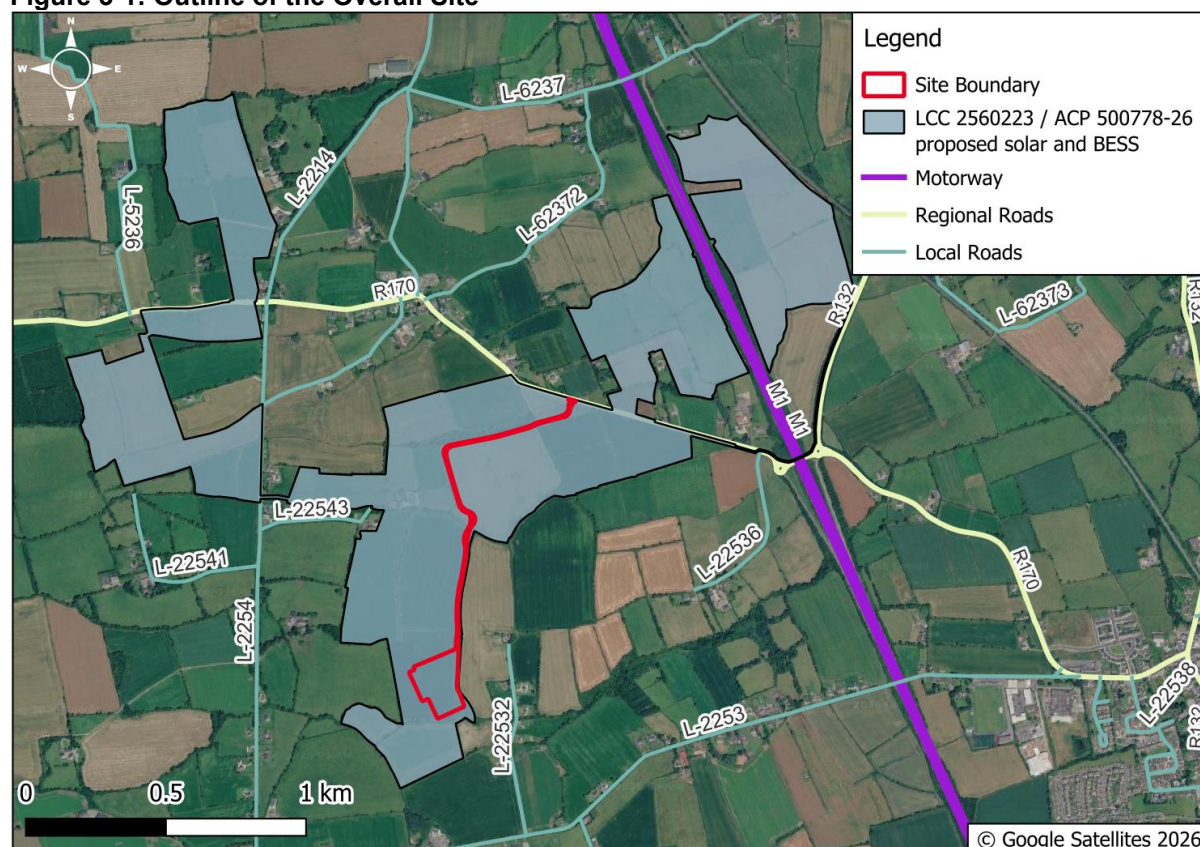


3 EXISTING ENVIRONMENT

3.1 Site Context

The Site is located within a predominantly rural landscape and currently comprises agricultural grassland. The Site is located within the proposed solar farm and BESS development boundary (Louth County Council Ref No. 2560223 / ABP Ref No. 500778-26). The village of Dromin is located ca. 1.3km north of the Site at the closest point.

Figure 3-1: Outline of the Overall Site



3.2 European Designated Sites

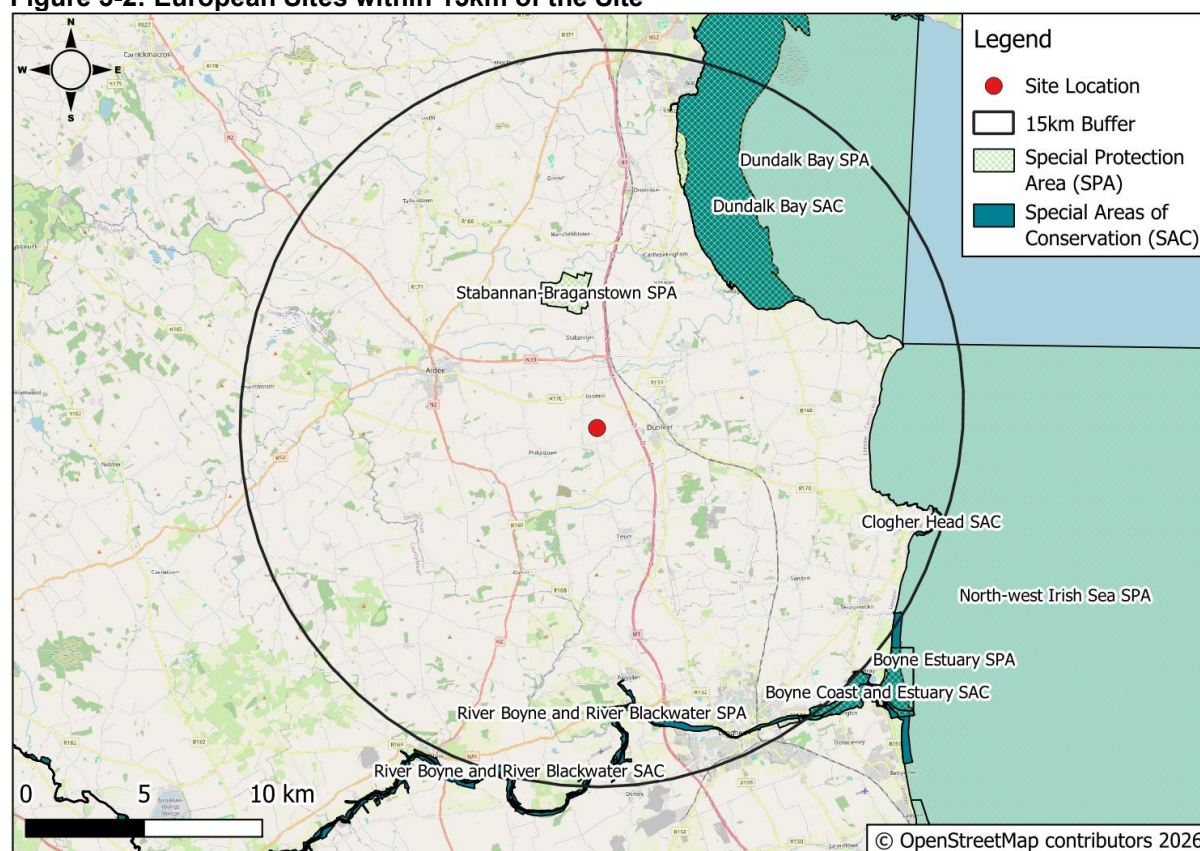
The Site is not located within or directly adjacent to any European sites. The boundaries of four Special Areas of Conservation ('SACs') and five Special Protection Areas ('SPAs') are located within 15km of the Site, as outlined in Table 3-1. Please see Figure 3-2 for context.

Table 3-1: European Designated Sites within 15km of the Site

Site Name	Code	Distance (km)	Direction from the Site
Special Areas of Conservation ('SAC')			
Dundalk Bay SAC	000455	8.3km	NE
River Boyne and River Blackwater SAC	002299	10.5km	S
Clogher Head SAC	001459	14.1km	SE
Boyne Coast and Estuary SAC	001957	14.8km	SE
Special Protection Areas ('SPA')			

Site Name	Code	Distance (km)	Direction from the Site
Stabannan-Braganstown SPA	004091	4.9km	N
Dundalk Bay SPA	004026	8.2km	NE
North-West Irish Sea SPA	004236	10.8km	E
River Boyne and River Blackwater SPA	004232	11.0km	S
Boyne Estuary SPA	004080	14.8km	SE

Figure 3-2: European Sites within 15km of the Site



No hydrological connection was identified between River Boyne and River Blackwater SAC, Clogher Head SAC and Boyne Coast and Estuary SAC or the Stabannan-Braganstown SPA, North-West Irish Sea SPA, River Boyne and River Blackwater SPA and Boyne Estuary SPA.

However, the Site is located ca. 150m north of the White (Louth)_030 river. The White (Louth)_030 river is a tributary of the Dee River, which discharges into the Dundalk Bay SPA and Dundalk Bay SPA ca. 8.2km downstream of the Site. Therefore, it is proposed to undertake an Appropriate Assessment report, which will be submitted in support of the SID application to ACP.

3.3 Watercourses in the Vicinity of the Site

There are no open watercourses within the Site; however, there are two hydrological features of note in the vicinity of the Site, as outlined below and illustrated in Figure 3-3.

1. White (Louth)_030 River

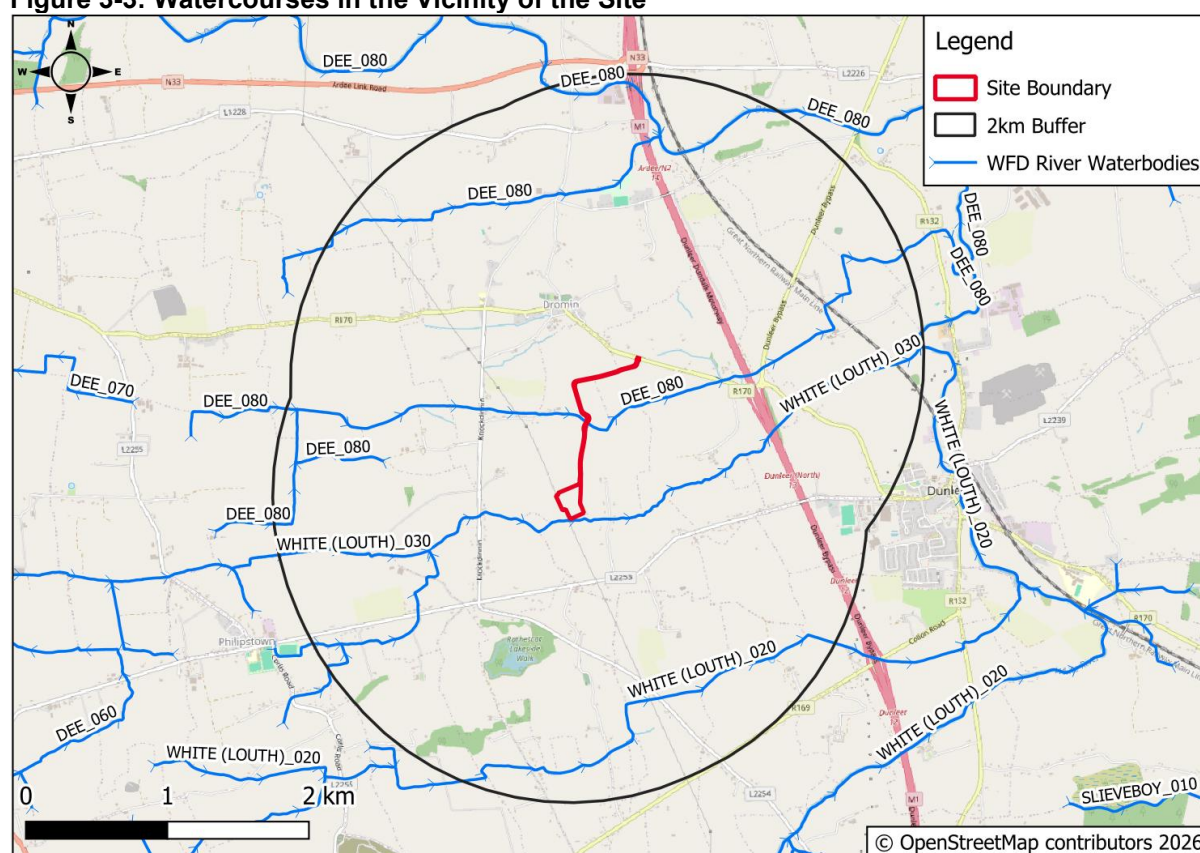
The river is located ca. 150m south of the Site at its closest point. The river flows in an easterly direction before draining into the Dee_080 river, ca. 3.2km downstream of the Site.

2. Dee_080 River

The river is located ca. 480m north of the Site. The river flows in an easterly direction and joins the Dee_090 ca. 2.8km northeast of the Site.

Under the WFD 2000/60/EC, as amended, the EPA classifies the status and the risk of not achieving good water quality status for all waterbodies in Ireland. According to the WFD 2016-2021 monitoring events, the most up-to-date data at the time of writing this report, the water quality within the White (Louth)_030 is considered to be 'poor,' and within the Dee_080 is considered to be 'moderate', and both rivers are considered 'at risk' of not achieving good water quality status [11].

Figure 3-3: Watercourses in the Vicinity of the Site



3.4 Noise

There are several residences in the vicinity of the Proposed Development.

A comprehensive noise survey will be conducted to characterise daytime and nighttime ambient acoustic conditions. This will be completed in line with ISO 1996 Part 1:2016 'Acoustics – Description, measurement and assessment of environmental noise Part 1: Basic quantities and assessment procedures.' Comprehensive noise modelling and a noise impact assessment will be carried out to assess the noise effects on sensitive receptors.

The Applicant is committed to ensuring that any noise is maintained below noise limits at sensitive receptors.

3.5 Landscape and Visual

The Site is situated in the Landscape Character Area (‘LCA’) ‘*Muirhevna Plain*’, which is described in the Landscape Character Assessment as not particularly sensitive to development and is intensively farmed for agriculture.

Due to the rural context of the area, the Proposed Development will be screened by natural boundaries such as hedgerows / treelines. Planting will be undertaken as part of an overall landscape plan for the proposed solar and BESS development to ensure that the Proposed Development will not impact either landscape character or visual receptors in the area.

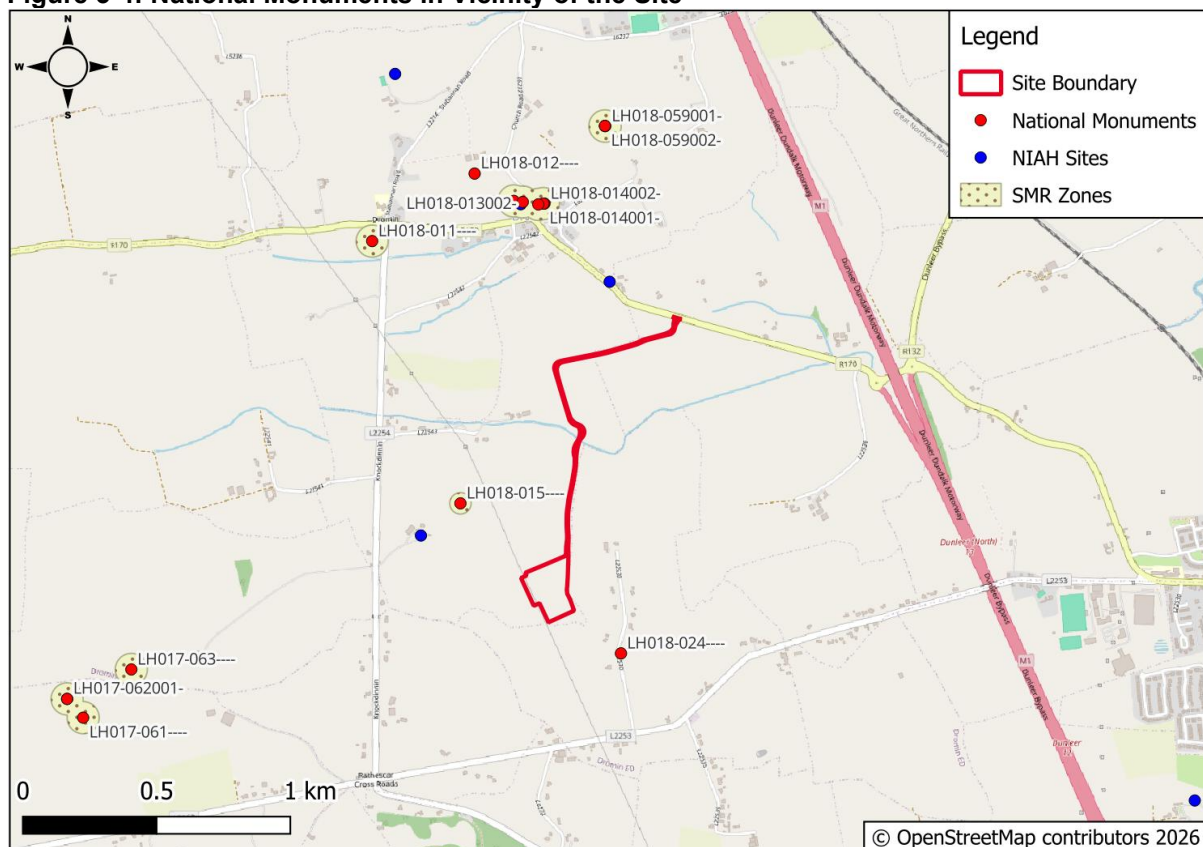
A detailed landscape and visual impact assessment will be submitted in support of the SID application to ACP.

3.6 Cultural Heritage

No monuments are located within the Site; however, several monuments are located adjacent to the Site and in the wider vicinity (see Figure 3-4 below).

An archaeological assessment will be undertaken to avoid any effects on these national monuments as a result of the Proposed Development. The layout for the Proposed Development will avoid any works within the SMR zones and will be instructed on the recommendations from the archaeological assessment. A geophysical survey was completed for the proposed solar PV development and BESS facility, which included the Site.

Figure 3-4: National Monuments in Vicinity of the Site



4 CONCLUSIONS

The need for climate change mitigation is recognised globally, with Ireland striving towards an overall target of 43% of gross final energy consumption coming from renewable energy sources by 2030 (80% of which will be from renewable electricity) [12]. Ireland is not set to meet these targets, and with electrical demand increasing, the need to expand and develop our renewable energy generation is clear.

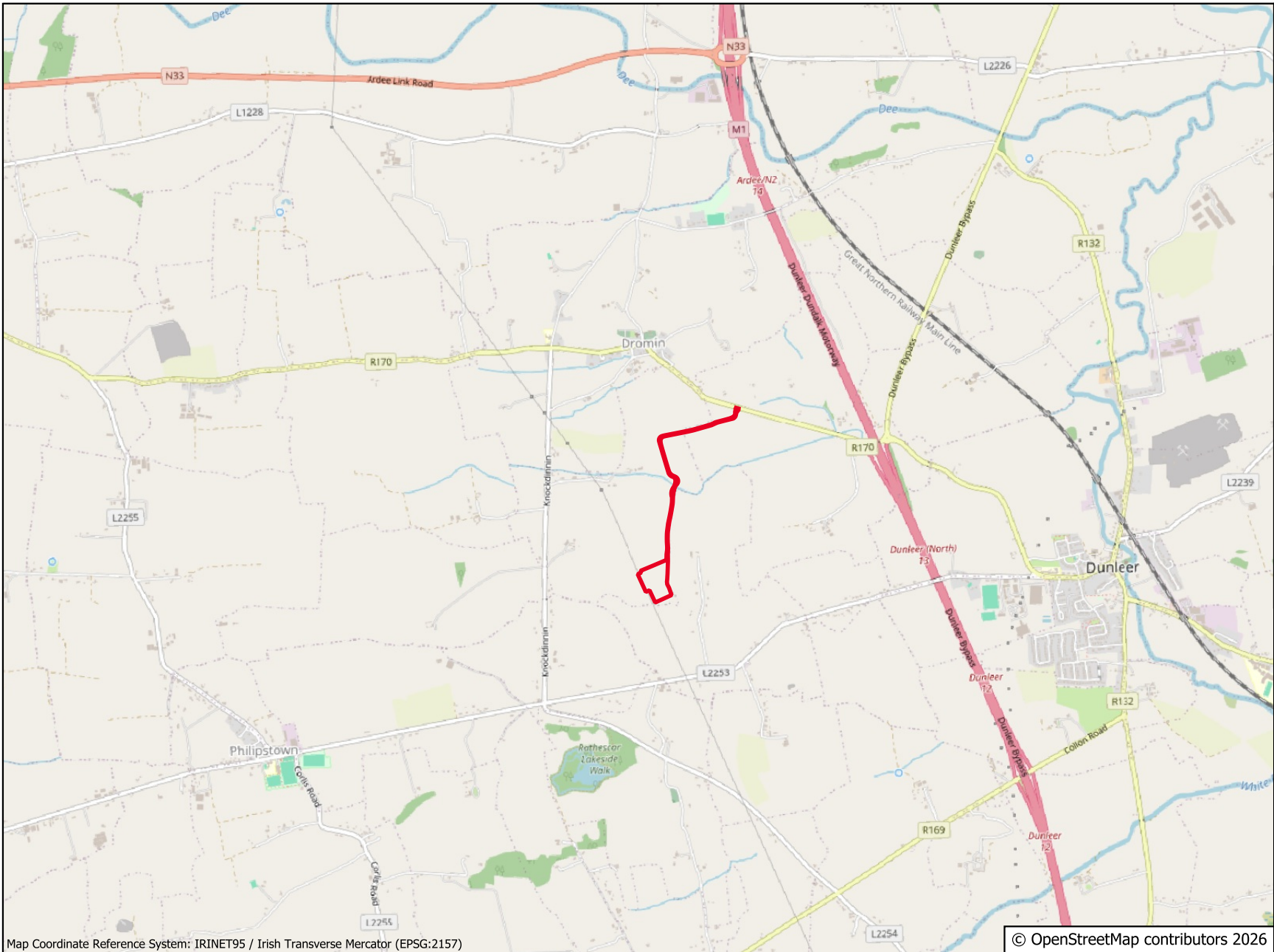
The Proposed Development will significantly increase the region's energy capacity and serve as an important connection node in the national grid system. Given the electrical capacity of the Proposed Development, it is our opinion that all elements of the project fall within the requirements of the Planning and Development (Strategic Infrastructure) Act 2006, and therefore, it is an appropriate development to submit under the SID process.

5 REFERENCES

- [1] IPCC, “Sixth Assessment Report (AR6),” United Nations International Panel on Climate Change, 2023.
- [2] SEAI, “Energy in Ireland Report,” Sustainable Energy Authority of Ireland, 2025.
- [3] EPA, “Ireland’s Final Greenhouse Gas Emissions 1990-2017,” Environmental Protection Agency, 2019.
- [4] EPA, “Ireland’s Greenhouse Gas Emission Projections 2014-2035,” EPA, Dublin, 2015C.
- [5] European Commission, “2030 Climate and Energy Framework,” n.d..
- [6] DCENR, “Ireland’s Transition to a Low Carbon Energy Future 2015-2030,” Department of Communications, Energy and Natural Resources, 2015.
- [7] Government of Ireland, “National Planning Framework (NPF),” Government of Ireland, 2025.
- [8] Government of Ireland, “National Policy Position on Climate Action and Low Carbon Development,” Department of Climate, Energy and the Environment, 2013.
- [9] Government of Ireland , “Climate Action Plan 2025,” Department of the Environment, Climate and Communications, Dublin, 2025.
- [10] Louth County Council, “Louth County Development Plan 2021-2027,” Louth County Council, 2021.
- [11] EPA, “EPA Map Viewer,” 2026. [Online]. Available: <https://gis.epa.ie/EPAMaps/>.
- [12] SEAI, “Ireland’s Energy Targets,” Sustainable Energy Authority of Ireland, 2025.

APPENDICES

APPENDIX A

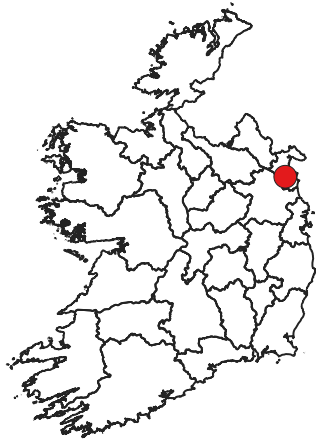


Map Coordinate Reference System: IRINET95 / Irish Transverse Mercator (EPSG:2157)

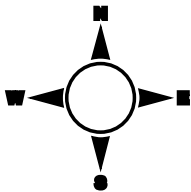
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Legend

- Site Boundary
- Site Location

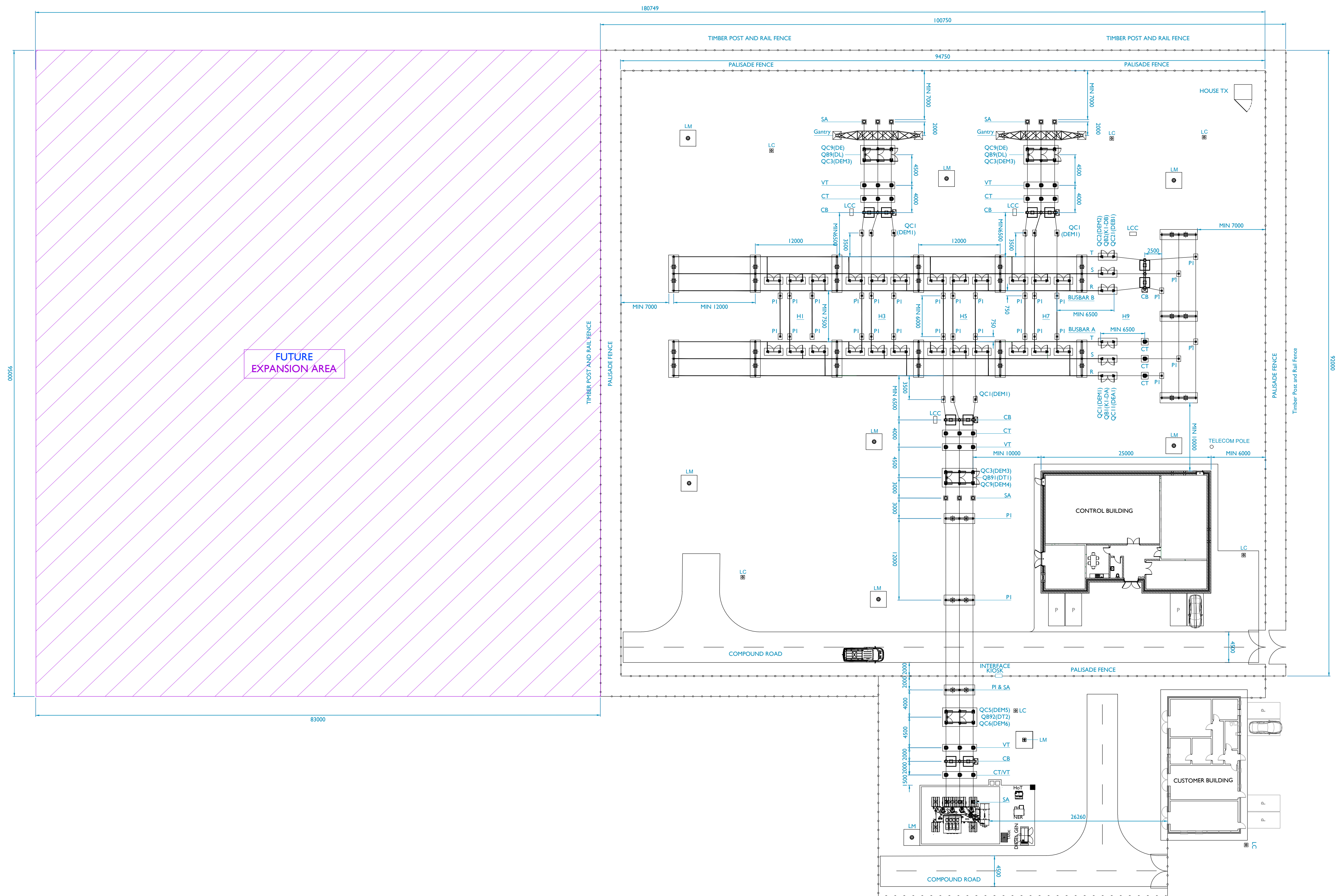


Ground Floor –Unit 3,
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Email: admin@mores.ie



Client			Description Site Location			
Knockdinnin Solar Farm Ltd						
Job SID Pre-application						
Job Number	Drawing Number	Status	Sht. Size	Scale	Date	Drawn
E2539	01		A4	1:32,600	25/08/2026	PAN

APPENDIX B



Substation Plan

Scale: 1:300

