

CLIENT: LUMCLOON ENERGY LIMITED

PROJECT NAME: LEL GIS CASTLELOST

PROJECT DETAILS: PROPOSED GIS ELECTRICITY SUBSTATION AT KILTOTAN & COLLINSTOWN AND OLDTOWN, ROCHFORTBRIDGE, COUNTY WESTMEATH

DOCUMENT: PLANNING STATEMENT

DATE FEBRUARY 2022

PROJECT REF. SEP-0347

Document Control

Client: Lum	ncloon Energy Limited
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Project Name	LEL GIS Castle	elost – Planning	Statement

Project Ref. No. SEP-0347

Document Checking:

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Issue	Date	Status
v1	09.02.2022	Final

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TABLE OF CONTENTS

1	INT	RODUCTION1
2	SIT	E DESCRIPTION AND CONTEXT
3	PRC	PPOSED DEVELOPMENT
4	NE	ED FOR THE DEVELOPMENT7
5	COI	NSULTATION
5	.1	SID Pre Application Consultation8
5	.2	SID Determination9
5	.3	Consultation with Westmeath County Council9
6	DES	SCRIPTION OF THE DEVELOPMENT 10
6	.1	General 10
6	.2	220kV Gas Insulated Switchgear (GIS) Building10
6	.3	Underground Transmission Lines and Connections to the Existing 220kV
		Electricity Transmission System
6	.4	Ancillary and Associated Works 11
7	PLA	NNING AND ENVIRONMENTAL CONSIDERATIONS
7	.1	Environmental Impact Assessment (EIA)11
7	.2	Biodiversity /Appropriate Assessment12
7	.3	Flood Risk
7	.4	Landscape and Visual 12
7	.5	Noise
7	.6	Cultural Heritage 12
7	.7	Preliminary Construction Environmental Management Plan (CEMP) 13
8	COI	NCLUSION

1 INTRODUCTION

This Planning Statement has been prepared on behalf of Lumcloon Energy Limited (LEL) to accompany a Planning Application to An Bord Pleanála following a determination received confirming the proposed development constitutes Strategic Infrastructure Development (SID) pursuant to Section 182A of the Planning and Development Act 2000, as amended.

The applicant company and developer is Lumcloon Energy Limited with a registered address of Parsons House, 56 Axis Business Park, Tullamore, Co. Offaly.

The proposed development is located within the townlands of Kiltotan and Collinstown and Oldtown, Rochfortbridge, County Westmeath and is hereafter referred to as the "*LEL GIS Castlelost Project*". The application site has a total area of c 7.58 hectares.

The proposed development for which permission under Section 182B is being sought constitutes a 220kV Gas Insulated Switchgear (GIS) Electrical Substation and two 220kV underground transmission cables which will connect to the existing overhead lines within the development boundary. The proposed substation is located adjacent to a proposed reserve gas-fired generator development and energy storage system development which are subject to separate concurrent applications under Westmeath County Council (Ref 21/515 and 21/532). The development is described as follows:

- Installation of a two-storey GIS substation building of 17.0m high with a gross floor area of c. 2,034 sq. m (containing battery room, WC, messroom, workshop, generator room, stair cores, cable pits, storeroom, and switchgear rooms) within a 2.65m high fenced compound,
- Installation of 2no. 220kV underground circuits which will run from the proposed 220kV GIS substation and connect to existing overhead 220kV transmission lines located north-east and west of the proposed GIS substation and within the development boundary,
- Each of the two circuits will terminate in a cable within 2no. separate proposed fenced (2.65m high) mini-interface electrical compounds (each with an area of c.604.5 sq. m), which will provide the interface between the proposed underground transmission circuits and overhead transmission lines. Both mini compounds will contain air insulated electrical equipment including a 17.0m high overhead gantry with line traps, surge arrestors and cable sealing ends. The mini-interface electrical compounds will connect the transmission lines to 2no. proposed single circuit 24m high pylons (located to the west and northeast of the GIS substation building) set on top of concrete foundations,

- Removal of 2no. existing electricity pylons (numbered 151 and 152) within the development boundary and along with associated overhead transmission lines transecting the site,
- a 36.0m high communications tower,
- Construction of a main entrance, access roadway, foul and surface water management systems all ancillary site development works.

This application is seeking a ten-year permission and an unlimited operational period, as part of the national electricity transmission system operated by Eirgrid from commissioning.

The proposed GIS substation is located adjacent to a proposed reserve gas-fired generator development and energy storage system development, which are subject to separate concurrent applications under Westmeath County Council (Ref 21/515 and 21/532). A single Environmental Impact Assessment Report (EIAR) has been prepared for the three projects. The potential environmental impacts from each project are assessed individually and cumulatively (with each other and with any other identified projects) within this EIAR

The purpose of this Planning Statement is to provide background information on the site, a description of the proposed development and an outline of the main issues which will inform the Planning Authority's assessment of this application.

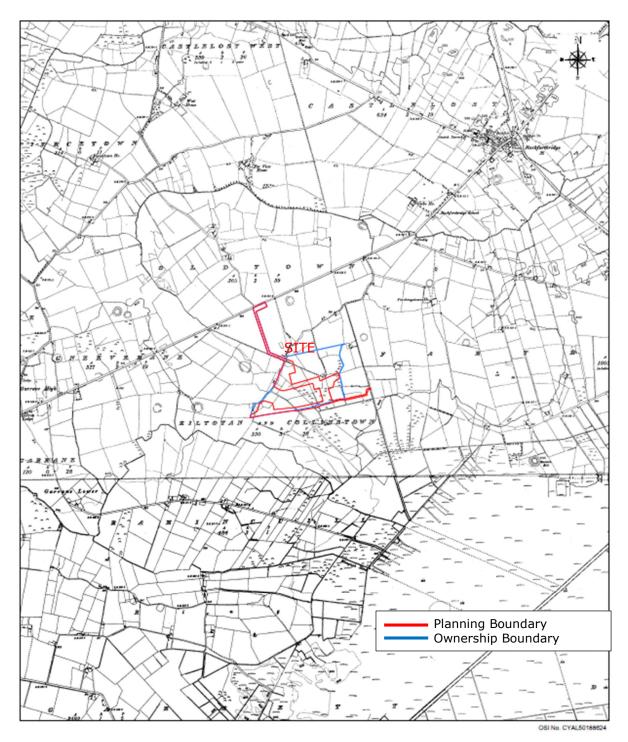
2 SITE DESCRIPTION AND CONTEXT

The proposed development lands are located approximately 2km southwest of Rochfortbridge and 3.5km northeast of Tyrrellspass. The M6 motorway defines the southern boundary of the proposed site and the R446 (N6) provides the proposed main access point to the site and defines part of the northern site boundary.

The lands within the development boundary gently rise from the lowest point of 93.5m OD in the southeast close to the boundary with the M6 motorway to 107.1m OD in the west of the site and 105m OD and 107m OD at the position where the lands border the R446. There are areas of extensive cutaway bogs, quarries and forestry located to the south and beyond the M6 motorway. Lands in the general area of the site are predominantly agricultural pastures with some arable lands. A map showing the location is presented in Figure 2.1 below.

There are no Natura 2000 sites within or immediately close to the site. There are no other ecological designations, geological heritage sites, recorded archaeological monument sites or other environmental designations within the proposed development lands. There is no

record of flooding at the site and the site is not located within an area which is likely to flood.





3 PROPOSED DEVELOPMENT

The LEL GIS Castlelost Project comprises a "*loop in /loop out*" connection to the existing 220kV overhead electricity transmission lines which transect the site. Development works will involve remove of two existing transmission pylons (one to the west (No.151) and one to the east (No. 152) of the proposed GIS substation building) and a section of overhead line. This will be replaced with; (i) a western interface compound and adjacent pylon, (ii) an eastern interface compound and adjacent pylon, (iii) underground transmission cables routing from the western and eastern interface compounds to a (iv) GIS substation building positioned between the interface compounds.

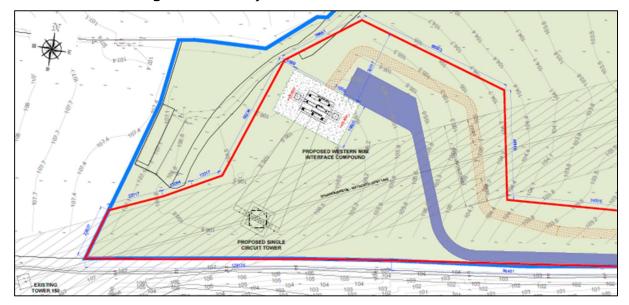






Plate 3.2 Existing Eastern Pylon (No.152) and 220kV OHL

Figure 3.1 Proposed Western Connection (New Pylon, Interface Compound and Underground Route)



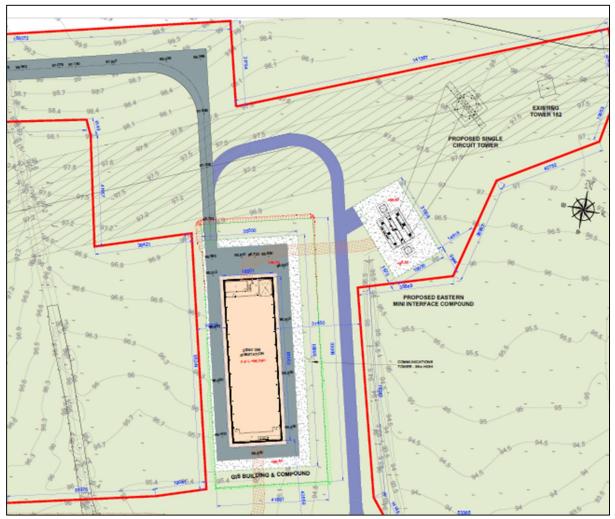


Figure 3.2 Eastern Connection (Pylon, Interface Compound Connecting GIS Substation to Existing Transmission System)

The development of the proposed 220kV substation and transmission lines connecting to the existing overhead 220kV transmission line will be a contestable development. This means that the Developer will be responsible for the design, construction, fit-out and precommissioning of both the proposed 220kV GIS substation and the underground 220kV transmission line circuits and connections to the existing overhead 220kV transmission lines. Upon completion of the works, the proposed 220kV GIS Substation and transmission line circuits will be handed over to EirGrid, whom in conjunction with ESB Networks (ESBN) will carry out the final commissioning and energisation of the proposed substation and transmission line connections. Once energised, the proposed development will from part of the ESBN infrastructure (in their role as Transmission Asset Owner (TAO)) and EirGrid will be responsible for operating the system (in their role as Transmission System Operator (TSO)).

4 NEED FOR THE DEVELOPMENT

The LEL GIS Castlelost Project will be developed to meet the identified transmission network reinforcement requirements in the Midlands of Ireland as outlined in the recently published "*Shaping our Electricity Future*"¹ report by Eirgrid and SONI. The LEL GIS Project is being developed at the proposed location to provide a connection for the adjoining LEL Flexgen Castlelost and LEL ESS Castlelost projects to the electricity transmission system; a 275MWe gas fired generator (LEL Flexgen Castlelost Project) and a 65MW /520MWh energy storage system (ESS) facility (LEL ESS Castlelost Project)².

The three projects are designed and configured to provide economic, reliable, and low emissions power to the electricity grid. The location of the development proposals is guided by a number of factors not least being the existence of the 220kV overhead Shannonbridge to Maynooth transmission line which transects the development lands.

In its November 2021 "Policy Statement on Security of Electricity Supply", Government has approved that "it is appropriate for additional electricity transmission and distribution grid infrastructure, electricity interconnection and electricity storage to be permitted and developed in order to support the growth of renewable energy and to support security of electricity supply". The Statement also includes approval for development of new gas-fired generation and natural gas transmission grid infrastructure to support security of electricity supply.

Construction of the proposed GIS electrical substation within the development lands at Castlelost accords with policy objectives CPO 10.169, CPO 10.173 and CPO 10.174 of the Westmeath CDP 2021-2027 (which deal with electricity infrastructure). Specifically, these are as follows:

- CPO 10.169 Support and promote the sustainable improvement and expansion of the electricity transmission and distribution network that supply the County, subject to landscape, residential, amenity and environmental considerations.
- CPO 10.173 Support the implementation of EirGrid's Grid 25 Investment Programme, subject to landscape, residential, amenity and environmental considerations
- CPO 10.174 Support and facilitate the development of enhanced electricity and gas supplies, which do not negatively impact on environmental quality, landscape,

¹ Shaping Our Electricity Future (2021); details innovative approaches to developing the grid in order to meet ambitious 2030 renewable energy targets

 $^{^{\}rm 2}$ Refer to LEL Castlelost EIAR for more details and Westmeath County Council Planning Ref. 21/515 and 21/532

wildlife, habitats or residential amenity and which are critical to the economic development of the County.

5 CONSULTATION

5.1 SID Pre Application Consultation

The applicant has had one (1no.). pre-application consultation meeting with An Bord Pleanála on the 20th October 2021. In response to a pre-application consultation request received by An Bord Pleanála on the 2nd September 2021. The purpose of the consultation meeting was to provide further information to An Bord Pleanála to inform their determination as to whether or not the proposed development might constitute strategic infrastructure.

The Board Inspector's report on the pre-application request, which informed the determination by the Board that the development constitutes Strategic Infrastructure Development, stated the following:

"This pre-application consultation concerns the development of a proposed GIS substation and its connection to the electricity grid that traverses the site. The proposed development of the GIS substation is a loop in loop out configuration and forms part of the transmission network, linking into the 220kV line which traverses over the development site. The transmission link will be provided via a section of underground and overground cable within the site which will connect to the existing overhead 220kV line via two proposed towers.

This pre-application consultation concerns the development of a proposed GIS substation and its connection to the electricity grid that traverses the site. The proposed development of the GIS substation is a loop in loop out configuration and forms part of the transmission network, linking into the 220kV line which traverses over the development site. The transmission link will be provided via a section of underground and overground cable within the site which will connect to the existing overhead 220kV line via two proposed towers.

Having regard to the nature and function of the substation, I consider that the substation constitutes electric plant as defined above in section 2(1) of the Electricity Regulation Act, 1999, as amended, in that is it plant for the purposes connected with the generation of electricity.

With regard to the electricity transmission line, I note that the prospective applicant has stated that the proposed substation will be operated on a loop in loop out arrangement. It is stated within the prospective applicant's documentation that the substation will become a node on the national transmission grid, transmitting electricity in both directions. Having regard to the information submitted and that presented during the course of the pre-application meeting I consider that the proposed substation and underground and overground cable will become an integral part of the national grid transmission infrastructure, the prospective applicant's correspondence is clear in this regard.

I conclude that the substation, in forming such a node on the 220kV transmission network, constitutes Strategic Infrastructure."

The inspectors Report recommends that:

"the proposed development consisting of a 220kV GIS substation in the townland of Kiltotan, Collinstown and Rochfortbridge as set out in the plans and particulars received by An Bord Pleanála on the 2nd September 2021, does fall 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."

5.2 SID Determination

An Bord Pleanála have confirmed in a letter dated the 30th November 2021 that the proposed development constitutes Strategic Infrastructure within the meaning of section 182A of the Act. The determination was made following the conclusion of the above-referenced pre-application process under ABP Reg. Ref.: ABP-311276-21.

Therefore, the current application is required to be submitted directly to An Bord Pleanála under section 182A(1) of the Act. . In their determination that the proposed development constitutes Strategic Infrastructure, a list of Prescribed Bodies was specified by the Board, to whom a copy of the application has been issued. The following bodies were listed:

- Minister for Housing, Local Government and Heritage,
- Minister for Communications, Climate Action and Environment,
- Transport Infrastructure Ireland,
- Westmeath County Council,
- Irish Water,
- Irish Aviation Authority, and
- Commission for Regulation of Utilities.

5.3 Consultation with Westmeath County Council

Consultation and discussions were also undertaken with Westmeath County Council with respect to the proposed GIS development at the site as part of application works

associated with the LEL Flexgen Castlelost Project (Planning Ref 21/515) and the LEL ESS Castlelost Project (Planning Ref. 21/532).

There is no previous planning related history at the site.

6 DESCRIPTION OF THE DEVELOPMENT

6.1 General

As part of the assessment of the electricity substation options, a gas insulated switchgear (GIS) substation and an air insulated switchgear (AIS) substation were considered. In general GIS substations are positioned indoor and AIS substations are installed outdoors. The main advantage of the GIS substation is that the phase to phase spacing is reduced significantly resulting in a substation with a much smaller compound footprint and visual impact than its AIS counterpart. The selection of a GIS substation over an AIS substation offered more scope in the site selection process due to the smaller size of compound (approximately 4-5 times less than the minimum take for an AIS) and it resulting in a lesser impact on the receiving environment.

The proposed connection of the high voltage substation including the selection of a GIS substation and interface compounds /new angle towers followed consultation with Eirgrid and design considerations. The proposed development reduces project risks and offers the project a number of benefits including (a) reducing the overall visual impact by bringing equipment down to ground level and (b) reducing the duration of the outage of the existing 220 kV circuit that will be required in order to build the two new towers into the existing line and to loop-into the new GIS substation. This approach allows for the construction and installation of the equipment in the two mini compounds and the 220 kV underground cables (UGCs) between the new substation and the two mini compounds in advance of the outage.

6.2 220kV Gas Insulated Switchgear (GIS) Building

The proposed substation includes the provision a two-storey 17m high building with a gross floor area of c. 2,034m² containing battery room, WC, messroom, workshop, generator room, stair cores, cable pits, storeroom, and switchgear rooms. The GIS Building will be positioned within a 2.65m high fenced secure compound

The building design is designed in accordance with Eirgrid specifications and will be finished with colour appropriate insulated metal cladding to assimilate into the existing environment. An associated 36m high communications tower will be positioned adjacent to the eastern side of the GIS building. The GIS has been configured and arranged on site to provide visual screening and mitigate visual impact from the m6 motorway.

6.3 Underground Transmission Lines and Connections to the Existing 220kV Electricity Transmission System

The proposed 220 kV transmission cables will run from the proposed 220 kV GIS substation, connecting to existing 220 kV overhead transmission lines to the west and northeast of the GIS building. All development works are contained within the development boundary including siting of above and below ground infrastructural components.

As the proposal is considered a "loop in /loop out" connection to the existing 220kV overhead transmission lines which transect the site, there will be a requirement to remove two existing transmission pylons (towers) and a section of overhead line. This transmission infrastructure will be replaced with (i) a western interface compound and adjacent pylon, (ii) an eastern interface compound and adjacent pylon, (iii) underground transmission cables routing from the western and eastern interface compounds to (iv) the GIS substation positioned between the interface compounds.

6.4 Ancillary and Associated Works

The development includes construction of a new site entrance to the proposed GIS substation from the R446. Associated works will include enabling works, drainage works, landscaping, security fencing and berms. The LEL GIS Castlelost Project layout has been configured to be compatible with development as proposed by Lumcloon Energy Limited under Westmeath Application Ref. 21/515 and Ref 21/532.

7 PLANNING AND ENVIRONMENTAL CONSIDERATIONS

7.1 Environmental Impact Assessment (EIA)

The LEL GIS Castlelost Project planning application is supported by an Environmental Impact Assessment Report. The EIAR was prepared following preplanning consultation with Westmeath County Council and consideration of the scale, nature and location of the project in isolation and in combination with two other adjoining projects proposed by the applicant³; a reserved gas-fired generator project and an energy storage system (ESS facility. Therefore, a single EIAR has been prepared for the three projects. The potential environmental impacts and effects from each project are assessed individually and cumulatively within the EIAR.

³ Refer to Section 1.1 (Overview) and 1.4 (Planning Framework) of the EIAR for further information.

7.2 Biodiversity /Appropriate Assessment

A report for the purposes of Appropriate Assessment Screening was prepared for the development. The report concludes that appropriate assessment is not required and that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on a European site.

A biodiversity assessment of the development proposal is presented in the EIAR. It was demonstrated that there will be no significant adverse impact arising from the development.

7.3 Flood Risk

A flood risk assessment (FRA) was prepared for the development. The FRA was undertaken to inform the future development of the site as it relates to flood risk. The development lands are shown to reside in Flood Zone C and are at low risk of inundation from fluvial, coastal and groundwater sources and is appropriate for development at this location.

7.4 Landscape and Visual

A landscape and visual impact assessment (LVIA) was prepared as part of the EIAR. Based on the LVIA completed the proposed development will not give rise to any significant landscape or visual impacts. An addendum LVIA report and Revised Photomontage Set has been prepared and submitted in response to the further information requests from Westmeath County Council in relation to the LEL Flexgen Castlelost and LEL ESS Castlelost Projects, i.e., Planning Application Ref.21/515 and Ref. 21/532.

In addition, a lighting design and assessment report was prepared as part of the further information response. The proposed lighting scheme and associated controls ensure minimal spill and the assessment shows that there will be no impact on residents or wildlife in the immediate vicinity of the development.

7.5 Noise

A noise impact assessment report was prepared and incorporated into the EIAR (Volume 2) and associated appendices (Volume 3). It was concluded that due to the design and nature and scale of the proposed development, no significant adverse effects will occur.

7.6 Cultural Heritage

A report Cultural Heritage Assessment was prepared by Moore Group and concludes that there will be no direct impact on known cultural heritage sites or features. A geophysical survey was undertaken at the site in January 2022 to investigate the presence of any unknown underlying features of archaeological/potential archaeological interest within the site boundary. The geophysical survey was commissioned in in response to the further information requests from Westmeath County Council relating to the LEL Flexgen Castlelost and LEL ESS Castlelost Projects, i.e., Planning Application Ref.21/515 and Ref. 21/532. The survey also included development lands on which the proposed GIS substation will be sited (i.e., a total of 21 hectares were surveyed).

The geophysical survey determined that there are no large-scale monuments apparent in the survey data. Smaller anomalies of possible archaeological significance were identified within the 21 hectares surveyed and accordingly it was recommended that targeted test trenching of the anomalies recorded in the areas to be impacted should be conditioned within any grant of permission on the site and in advance of construction.

7.7 Preliminary Construction Environmental Management Plan (CEMP)

A Preliminary Construction Environmental Management Plan (CEMP) has been prepared and is submitted in support of the development.

This plan outlines the approach to environmental and waste management throughout the construction works of the proposed development and associated activities with the primary aim of reducing any adverse impacts from construction on the environment and improving the overall environmental performance of the appointed construction contractor.

The purpose of this Plan is:

- To help ensure compliance with legal and contract requirements,
- To control and where possible minimise, the environmental impacts of the construction works,
- To minimise the risk of causing pollution or a nuisance and associated costs and delays, and
- Promote best construction and environmental on-site practices for the duration of the works.

The plan and methodology seek to demonstrate how works on the project can be delivered in a logical, sensible and safe sequence with the incorporation of specific measures to mitigate the impact on people, property and the environment.

In addition, the Preliminary CEMP seeks to address construction related aspects raised by third parties in submissions lodged with the Planning Authority (Planning Application Ref.21/515 and Ref. 21/532).

8 CONCLUSION

This planning application relates to the provision of a 220kV GIS substation and an underground transmission cable connection (comprising two circuits and dropdown connections) between the proposed 220kV GIS substation and the existing 220kV overhead Shannonbridge-Maynooth transmission lines which transect the development site.

The LEL GIS Castlelost Project will be developed to meet the identified transmission network reinforcement requirements in the Midlands of Ireland. The LEL GIS Project is being developed at the proposed location to provide a connection for the adjoining LEL Flexgen Castlelost and LEL ESS Castlelost projects to the electricity transmission system. The three projects are designed and configured to provide economic, reliable, and low emissions power to the electricity grid.

The proposed development conforms with the principles of proper planning and sustainable development for this type of project and is in accordance with the policies and objectives of national and regional planning policy, and the Westmeath County Development Plan 2021-2027.

It has been demonstrated within this report, as well as within the accompanying drawings, documents, and Environmental Impact Assessment Report that the proposal provides a suitable use of the subject lands.