

Planning Report for a s.182 Electricity Transmission Strategic Infrastructure Development

In respect of

**The provision of a 110kV Gas Insulated Switchgear (GIS)
Substation and 110kV Transmission Line Connections**

Prepared by

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On behalf of

Crag Wicklow Limited

November 2022



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1.0 INTRODUCTION AND CONTEXT

- 1.1 On behalf of our client, Crag Wicklow Limited, Unit 22 The Cubes, Beacon South Quarter, Sandyford, Dublin 18, and further to a determination received from An Bord Pleanála confirming the proposed development constitutes Strategic Infrastructure Development (SID) pursuant the Section 182E of the Planning & Development Act 2000 (as amended), we hereby submit this planning application in respect of a proposal for the provision of a 110kV Gas Insulated Switchgear (hereinafter ‘GIS’) substation and associated development on a site to the north of the existing Kish Business Park, Arklow, County Wicklow, along with associated 110kV transmission line connections to serve the proposed substation. The proposed substation is intended to be known as the Oaklands Substation.
- 1.2 The location and context of the proposed development is described in further detail in Section 2 below. The proposed development is described as follows within the public notices for the application:

“The proposed development primarily comprises the provision of a new 110 kV substation with Gas Insulated Switchgear (GIS) technology and two 110 kV underground transmission cables (connecting to existing 220 kV overhead lines to the northwest of the proposed substation) along with associated and ancillary works. The proposed development is located within the townlands of Bogland, Kish, Cooladangan, Ballintombay, Ballyroonaun, and Ballynattin, Co. Wicklow. The site of the proposed development has an area of c. 8.68 hectares.

The proposed 110kV GIS Substation is to be located on lands to the northwest of the ICT facility development permitted under Wicklow County Council Reg. Ref.: 20/1088, within an overall landholding bound to the south / southwest by the existing Kish Business Park, to the southeast by dwellings and Kish Road, to the west by the Dublin-Rosslare railway line (beyond which is the R772 and the M11), and to the east and north by agricultural lands.

The development is described as follows:

The proposed substation compound is subdivided into two parts. The southern part of the compound will accommodate and a two storey 110kV GIS substation building (with a gross floor area of c. 1,299 sq.m). The northern part of the compound will accommodate four transformers, a single storey client control building (with a gross floor area of c. 419 sq.m) and associated underground services. Both parts of the substation compound are enclosed within c. 2.4 metre high security fencing.

The proposed dropdown 110kV transmission lines will connect the proposed 110kV GIS substation building to existing 110kV overhead transmission lines to the northwest of the proposed substation (the Arklow Banoge 110kV overhead line) and will comprise the provision of two dropdown masts (c. 17 metres in height) and associated overhead transmission line connections, transitioning to underground transmission lines set within ducts, that will subsequently progress into the 110kV GIS substation building.

The proposed 110kV underground transmission lines will primarily run through undeveloped lands, agricultural lands, and via public roads between the proposed 110kV GIS substation and existing Arklow – Banoge overhead lines to the northwest of the site.

The proposed 110kV underground transmission lines form a loop that will be divided into two circuits, Circuits A and B. Proposed Circuit A proceeds from the site of the

proposed 110kV GIS substation westwards, crossing the nearby railway line, then proceeds south-west along the R772 to cross the Moneylane Stream and crosses underneath the M11 motorway at Junction 21, then proceeds along the L6187, enters agricultural lands adjacent to Knockeneahan Road, and terminates at the existing 110 kV Arklow – Banoge overhead line. Proposed Circuit B proceeds from the site of the proposed 110kV GIS substation westwards, crossing the nearby railway line, the Moneylane Stream, the R772, and the M11, then traverses lands within the Arklow IDA Business Park, and open agricultural lands adjacent to the M11 and Knockeneahan Road (L2190) and terminates at the existing 110 kV Arklow – Banoge overhead line.

The development includes adjacent access paths, connections to the substation and to the overhead lines, removal of redundant overhead lines, landscaping and landscape screening to the proposed GIS substation compound, security fencing, provision of internal access roads and car parking (9 no. spaces) within the substation compound, services, all associated construction works, and all ancillary works.

An Environmental Impact Assessment Report has been prepared in respect of this application.”

Project Scope

- 1.3 The proposed development is described in further detail within Section 5 of this statement. In summary the proposal comprises the provision of a 110kV GIS substation and associated development, including a GIS building, MV control building and four transformer bays, to be located within a 2.4-metre-high security fence compound on a site located to the north of the existing Kish Business Park, Arklow, Co. Wicklow. The development also includes the provision of transmission line connections (via underground transmission cables) connecting the proposed substation with existing electricity transmission infrastructure (overhead lines) in the vicinity.
- 1.4 As set out in further detail below, permission has been granted for an ICT facility development on lands adjoining the proposed GIS substation under Reg. Ref.: 20/1088. The proposed substation will provide for the requirements of this permitted adjacent development in addition to potentially serving other development in the area. The new substation will represent a new node on the national transmission grid.

Stakeholders & Roles

- 1.5 The main stakeholders for the development are as set out as follows:
 - EirGrid, are responsible for operating and developing the national high voltage electricity grid in Ireland
 - ESB Networks, (Asset Owner) are responsible for carrying out maintenance, repairs and construction on the grid
 - The role of Crag Wicklow Limited for this project is to act as the Developer / Applicant.

Development Method

- 1.6 The development of the proposed 110kV GIS substation and the 110kV transmission line connections will be a contestable development.

- 1.7 The meaning of this, is the developer will be responsible for the design, construction, fit-out and pre-commissioning of the proposed development.
- 1.8 Upon completion of the works by the Developer, the proposed 110kV substation and associated transmission line 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 lines.
- 1.9 Once energised, the proposed substation and transmission lines will form part of the ESBN infrastructure, which EirGrid will be responsible for operating.

Applicant and Agent for the Application

- 1.10 The Applicant (Developer) for the proposed contestable development is Crag Wicklow Limited, with a registered address at Unit 22 The Cubes, Beacon South Quarter, Sandyford, Dublin 18. Mr. Simon McCormick is the contact within Crag Digital Avoca Ltd and can be reached on (01) 905 3563.
- 1.11 The company registration number of the applicant company is 657158.
- 1.12 The main agent acting on behalf of the Applicant is John Spain Associates, with an address at 39 Fitzwilliam Place, Dublin 2. Mr. Luke Wymer is the contact within John Spain Associates and can be contacted on (01) 6625803, or by email at lwymer@johnspainassociates.com.

2.0 SITE LOCATION AND CONTEXT

Site of the Proposed 110kV Substation

- 2.1 The site of the proposed 110kV GIS substation is located on lands to the north of Kish Business Park and to the south of the town of Arklow, County Wicklow. The substation site is currently undeveloped, within a wider site which is subject to an extant permission for ICT facility development (described within the section 4 of the current statement).
- 2.2 The site benefits from a strategic location approximately 500 metres east of the M11. This motorway is accessed via the local road network at junction 21 approximately 700 metres to the southwest.
- 2.3 Arklow town centre and train station are located approximately 2km to the north, with the east coast railway line located to the west of the location for the proposed substation. The town centre is accessed by the R772, to the southwest. The county town of Wicklow is located approximately 25km to the north, with Dublin city centre 65 km to the north of the site. The M11 motorway provides an excellent transport link to the surrounding area.
- 2.4 The substation site is adjacent to Kish Business Park to the south and is accessed via an existing estate road within the business park. The proposed substation will tie-into the permitted ICT facility development and associated infrastructure permitted as part of that development on surrounding lands.



Figure 2.1: Location of the Substation Site

Proposed Underground 110kV Electricity Transmission Line Route

- 2.5 The proposed 110kV transmission line connections will connect the proposed 110kV GIS substation site and the existing Arklow – Banoge 110kV overhead line. The transmission line forms a loop that will be divide in two circuits, Circuits A and B.
- 2.6 Proposed Circuit A proceeds from the site of the proposed 110kV GIS substation westwards, crossing the nearby railway line, then proceeds south-west along the R772 to cross the Moneylane Stream and crosses underneath the M11 motorway at Junction 21, then proceeds along the L6187, enters agricultural lands adjacent to Knockeneahan Road, and terminates at the existing 110 kV Arklow – Banoge overhead line.
- 2.7 Proposed Circuit B proceeds from the site of the proposed 110kV GIS substation westwards, crossing the nearby railway line, the Moneylane Stream, the R772, and the M11, then traverses lands within the Arklow IDA Business Park, and open agricultural lands adjacent to the M11 and Knockeneahan Road (L2190) and terminates at the existing 110 kV Arklow – Banoge overhead line.
- 2.8 The proposed Circuit A has a total distance of c. 2.933 km, and the proposed Circuit B has a total distance of c. 2.216 km.

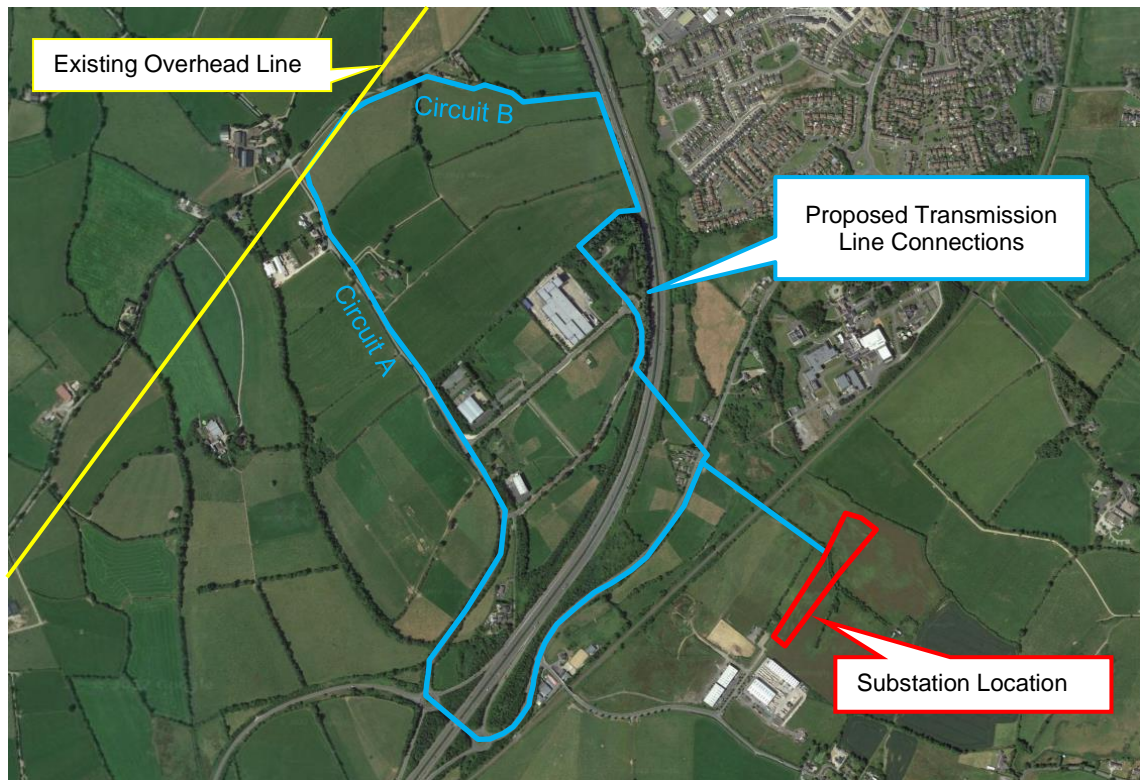


Figure 2.2: Location of the route proposed – Approximately only

- 2.9 As set out below, the proposed transmission line connections described above include lands in private third-party ownership, and public roads under the control of the Local Authority. The prospective applicant owns the site of the proposed substation.
- 2.10 We refer the reader to Section 5 of this report for further details of the proposed 110kV transmission line connections. The accompanying drawings prepared by Clifton Scannell Emerson Associates illustrate the transmission line route. The next section of this statement sets out information in relation to pre-application consultations, while the following section sets out the relevant planning history pertaining to the substation site and associated transmission line connections to the existing overhead line, and adjoining lands.

3.0 PRE-APPLICATION CONSULTATION

- 3.1 The applicant undertook 1 no. pre-application consultation meeting with An Bord Pleanála on the 16th of February 2022, in response to a pre-application consultation request received by An Bord Pleanála on the 27th of October 2021.
- 3.2 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.
- 3.3 A request to conclude the pre-application process was submitted to An Bord Pleanála on the 11th of March 2022.
- 3.4 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:

“Regardless of the chosen option, all will include the provision of 110kV transmission lines between the proposed substation and the existing/ permitted transmission infrastructure, which will essentially see power in the transmission lines being conveyed with a voltage of 110kV. This, in my opinion, constitutes Strategic Infrastructure Development. It should be noted that the applicant has stated that the proposed development is designed to support the power demands of development on lands adjoining the proposed 110kV substation.”

An Bord Pleanála Determination

- 3.5 An Bord Pleanála have confirmed in a letter dated the 28th of June 2022 that the proposed development constitutes Strategic Infrastructure within the meaning of section 182A of the Act (See Appendix 1). The determination was made following the conclusion of the above-referenced pre-application process under ABP Reg. Ref.: ABP- 311778-21.
- 3.6 Therefore, the current application is required to be submitted directly to An Bord Pleanála under section 182A(1) of the Act.
- 3.7 The determination from the Board that the development constitutes a SID was accompanied by an Inspector’s Report, which recommended that the applicant be informed that the proposed development constitutes Strategic Infrastructure. The Inspector’s Report concluded as follows:

“I recommend that Crag Wicklow Limited be informed that the proposed development consisting of a 110kV GIS substation and associated development on a site to the north of the existing Kish Business Park, Arklow, Co. Wicklow as set out in the plans and particulars received by An Bord Pleanála on the 27th October 2021, falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board.”

- 3.8 The determination by the Board that the proposal constitutes Strategic Infrastructure Development was accompanied by a list of Prescribed Bodies, to whom a copy of the application has been issued. The following bodies were listed:
- Minister for Housing, Local Government and Heritage
 - Minister for Environment, Climate and Communications
 - Wicklow County Council
 - Irish Water
 - Irish Rail
 - Transport Infrastructure Ireland
 - Failte Ireland
 - An Taisce
 - Heritage Council
 - Commission of Regulation of Utilities, Water and Energy
 - Health Service Executive
 - Irish Aviation Authority
 - Health & Safety Authority

4.0 RELEVANT PLANNING HISTORY

4.1 This section provides details of the planning history of the subject site and relevant planning history pertaining to adjoining lands.

Proposed Substation Site / Adjoining ICT Facility Development

Wicklow County Council Reg. Ref.: 20/1088

4.2 On the 10th of June 2021, a final grant of permission was issued by the Planning Authority for an ICT facility development on lands which include and adjoin the site of the 110kV GIS substation now proposed.

4.3 The permitted development comprises the following:

- *“Demolition of existing outbuildings on the subject site, along with all site clearance and enabling works;*
- *Construction of 3 no. part one storey, part two storey information and communication technology (ICT) facility buildings, each with a gross floor area (GFA) of c. 22,210sq.m (GFA of 66,630sq.m in total), and with a height (to parapet level) of c. 10.4 metres;*
- *Each of the 3 no. ICT facility buildings will accommodate ICT equipment rooms, associated electrical and mechanical equipment rooms, loading bays, maintenance and storage space, office administration areas, and staff facilities.*
- *Emergency generators (20 no. for each ICT facility building), flue stacks and associated plant are provided in a fenced compounds adjacent to each ICT facility;*
- *Extension of the existing road serving Kish Business Park to serve the subject site, with gated access points to the proposed ICT facility development to be provided off this roadway on its eastern side. The proposed roadway will form part of the inner relief road planned under Objective IT7 of the Arklow Town and Environs LAP 2018-2024;*
- *Construction of internal road network and circulation areas, footpaths, provision of 180 no. car parking spaces (60 no. spaces to serve each ICT facility) and 18 no. cycle parking spaces;*
- *Landscaping and planting, boundary treatments, lighting, security fencing, gatehouse (with a GFA of 175sq.m), and all associated site works including underground foul and storm water drainage network, attenuation areas, and utility cables, on an application site area measuring c. 24.16 hectares.”*

4.4 The Planning Report for the ICT Facility development application set out that the design of the development allowed a future site for a substation to serve the development, which would require undertaking of pre-application consultation with the Board under section 182 of the Act. The site layout plans submitted with the application also reserved an area as the indicative future location for a substation to serve the development. The current application under section 182 of the Act is now submitted in respect of that substation and its associated transmission line connections.

4.5 The ICT facility development application was subject to Environmental Impact Assessment by the Planning Authority. The EIAR submitted considered the potential cumulative impact of a potential future substation and transmission line connection development (now subject to this electricity transmission application to the Board under section 182 of the Act).

- 4.6 As set out previously, the proposed substation and transmission line development now being progressed is subject to its own Environmental Impact Assessment Report, which considers cumulative impacts, including a cumulative assessment with the permitted ICT facility development. We refer to the accompanying Environmental Impact Assessment Report prepared by AWN Consulting and other specialist consultants for further details.



Figure 3.1: Extract from the site layout plan from application Reg. Ref.: 20/1088, labelled to indicate the location reserved for the substation now proposed

Further Planning History at Kish Business Park

- 4.7 A number of planning applications have been lodged on lands at Kish Business Park to the south of the subject site. The most recent and relevant applications are noted below.

Wicklow County Council Reg. Ref.: 22/243

- 4.8 A final grant of permission was issued by the Planning Authority on the 8th of June 2022, subject to 8 conditions, for development consisting of a *'Single storey industrial unit (Gross Area 2,380sqm) in lieu of that allowed under PPR21/951 and a new car park and timber storage compound and all associated site works'*.

Wicklow County Council Reg. Ref.: 21/951

- 4.9 A final grant of permission was issued by the Planning Authority on 8th June 2022, subject to 7 conditions, for development consisting of a *'Single storey industrial unit (Gross area 3150 Sqm) infill extension between existing buildings and a new car park and timber storage compound (0.7 Ha) and all associated site works.'*

Wicklow County Council Reg. Ref.: 21/677 and ABP Reg. Ref.: PL27.312181

- 4.10 A notification to grant permission was issued by the Planning Authority on 15th of November 2021, subject to 10 conditions, for development consisting of the *'construction of a Biofuel facility comprising of a part 3 storey and part single storey commercial building with a total floor area of 1771m², covered truck filling / unloading area. Pipe bridge and tank farm storage area. The overall building height is 14 metres with solar panels on the roof. The maximum height of any storage tank is 12 metres and the boiler room chimney is 15 metres. Extension of the existing Kish Business Park access road, footpaths, drainage and water supply to serve the subject site. New internal roads, footpaths, 21 no. car parking spaces, 10 no. cycle parking spaces and parking and circulation areas for 10 no. trucks; 2 no. vehicular entrances, pedestrian access, boundary treatment and landscaping, ESB substation and new underground foul and storm water drainage system for the site including rainwater harvesting, attenuation pond, full retention oil interceptor and associated works. The application site area is 1.6 hectares.'*
- 4.11 An EIAR was submitted to the Planning Authority with the Planning Application.
- 4.12 A third-party appeal was lodged on the 16th of December 2021 and the decision of An Bord Pleanála was due to be issued on the 26th of April 2022, however no decision had issued at the time of writing.

Wicklow County Council Reg. Ref.: 19/1322

- 4.13 A final grant of permission was issued by the Planning Authority on the 18th of March 2020 for development consisting of a *'single storey 710 sqm industrial unit, comprising 236 sqm metal fabrication workshop and 474 sqm of trade and display area, 272 sqm concrete surfaced yard with security fence to the side of the proposed building, connect into the existing mains sewer and storm water systems, to provide car parking, a 3.5m high sign at the site entrance and all additional site works'*.

Wicklow County Council Reg. Ref.: 18/1283

- 4.14 A final grant of permission was issued by the Planning Authority on 27th February 2019 for development comprising a *'56sqm of existing first floor office and external window and full permission for office (gross area 120 sqm) and windows at second floor, new fire escape at ground floor, additional parking and all associated works'* at Unit 1, Kish Business Park.

Wicklow County Council Reg. Ref.: 17/941

- 4.15 A final grant of permission was issued by the Planning Authority on 22nd November 2017 for development comprising a *'single storey unit (gross area 1523 sqm) for timber storage, revised parking layout and all associated site works and retention of revised layout to eastern gable doors to existing building and boundary fence treatment'*.

5.0 DEVELOPMENT DESCRIPTION

- 5.1 The proposed development comprises the provision of a new 110kV Gas Insulated Switchgear (GIS) substation on lands to the south of Arklow Town, adjacent to Kish Business Park, and on lands which are subject to an extant permission for the delivery of an ICT facility development and associated infrastructure including a section of a new link road (which adjoins the proposed substation compound and will provide access to it). The development also includes the provision of underground 110kV transmission lines between the 110kv Gas Insulated Switchgear (GIS) substation and the existing overhead lines to the northwest of the subject site.
- 5.2 The proposed substation and connection point to the existing overhead lines are located c. 1.5 kilometres apart and are separated by greenfield areas, warehouse/logistics units, the M11 and other roadways.

Proposed Substation Compound

- 5.3 As set out in the public notices, the proposed substation compound includes a single storey MV / client control building to the northwest of the substation site, a transformer compound with 4 no. electrical transformers to the east of the control building, and a two storey 110kV GIS substation building to the south of the control building and transformers.
- 5.4 Both parts of the substation compound are enclosed within 2.4-metre-high security fencing, with a fence line also separating the two parts of the overall substation compound. The development includes all necessary underground connections within both parts of the overall substation compound.
- 5.5 The permission for the ICT facility development made provision for an area to situate the proposed substation. The substation will be located adjacent to the main distributor / access road which runs through the permitted development on the wider landholding, and to the west of permitted ICT facility building 1.
- 5.6 Three gated points of vehicular access are to be provided from the adjacent road to the west permitted under WCC Reg. Ref.: 20/1088. In total 9 no. car parking spaces are to be provided. The layout of the substation compound and the associated landscape proposals and architectural façade treatments ensure that a high quality frontage will be provided to the adjacent link road, as set out in further detail below.



Figure 5.1: CGI view of the substation compound (facing northeast with GIS building in the foreground) from the adjoining permitted link road which formed part of the surrounding ICT facility development (extract from Appendix 10.1 to the EIAR)



Figure 5.2: CGI view of the substation compound (facing southeast with Client Control building in the foreground) from the adjoining permitted link road which formed part of the surrounding ICT facility development (extract from Appendix 10.1 to the EIAR)



Figure 5.3: Extract from the RAU Design Statement demonstrating the relatively small scale of the substation structures, and the proposed screening between the substation and the adjacent permitted link road

110kV Gas Insulated Switchgear (GIS) Substation Building

- 5.7 As set out above the proposed development includes the provision of a 110kV Gas Insulated Switchgear (GIS) Substation, to be located on lands to the north of the existing Kish Business Park and within a wider site which is subject to an extant permission for ICT facility development under WCC Reg. Ref.: 20/1088.
- 5.8 The proposed 110kV GIS substation building will be situated within the southern part of the overall substation compound. This portion of the overall substation compound will also accommodate car parking spaces to serve the 110kV GIS substation building. Access will be provided via a gateway in the western fence line to this portion of the substation compound from the permitted roadway to the west.
- 5.9 The proposed two storey 110kV GIS substation building (with a gross floor area of c. 1,299 sq.m) will accommodate a battery room, relay room, cable room, a generator room, a workshop, a messroom at ground floor level and 110kV GIS room accommodated at first floor level. The overall height of the building is c. 15.2 metres.
- 5.10 The GIS substation building design is rectilinear, and the building will be finished metal cladding to match the adjoining permitted ICT facility to the south. The materials and finishes of the proposed GIS substation building are durable and of good quality. This building has been sited set back from the adjoining permitted link road, to maximise visual screening by the proposed landscape buffering.

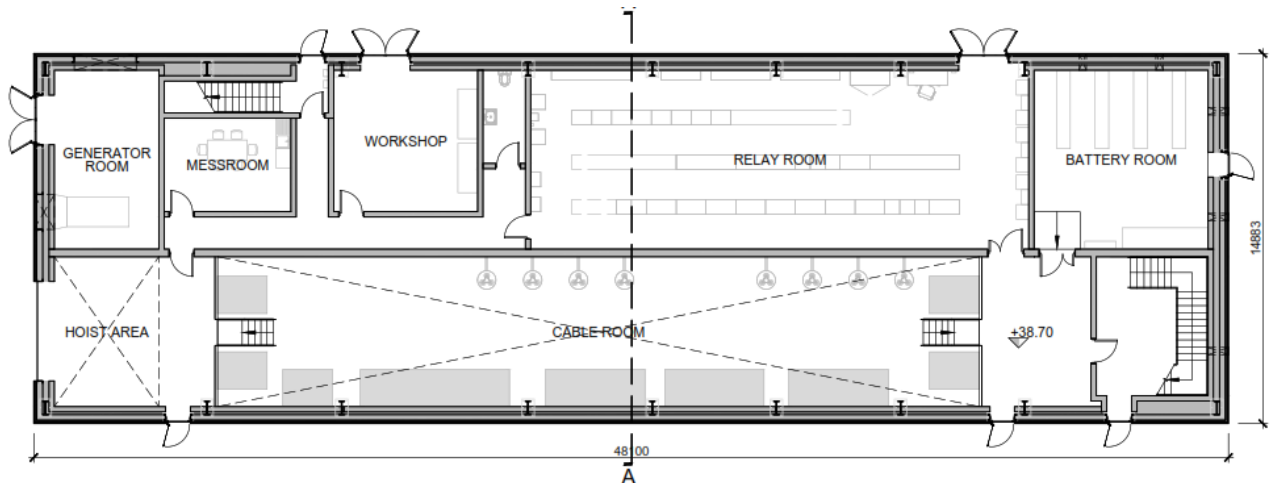


Figure 5.4: Extract from Reddy Architecture + Urbanism Ground Floor Plan for the GIS Building

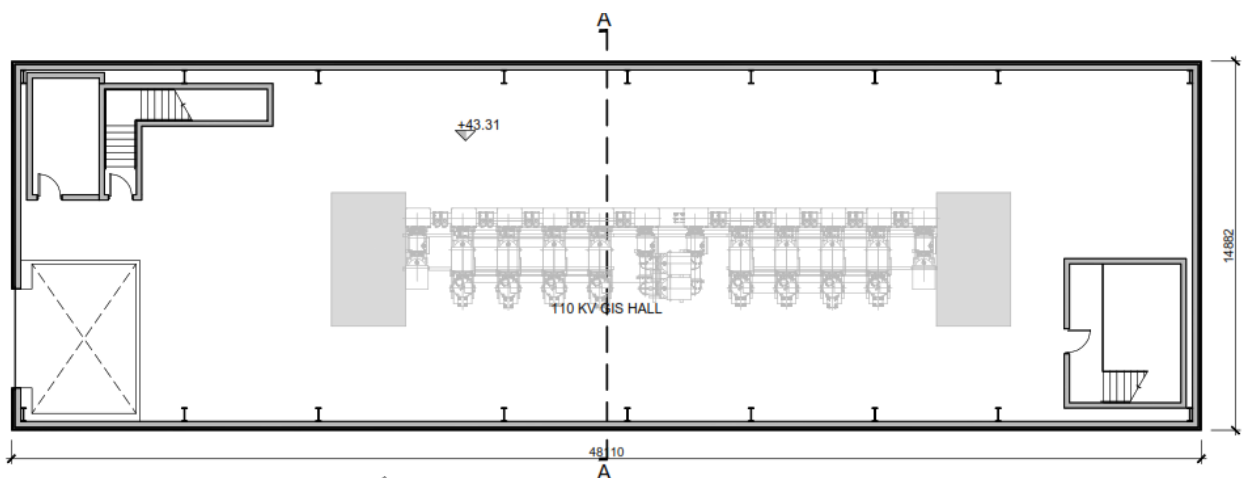


Figure 5.5: Extract from Reddy Architecture + Urbanism First Floor Plan for the GIS Building

Client Control Building

- 5.11 Within the northern part of the overall substation compound, a single storey client control building will be provided. It is proposed to provide for a gated access from the permitted adjacent link roadway to the customer compound and 4 no. car parking spaces will be provided to the south of the building.
- 5.12 The proposed single storey client control building (with a gross floor area of c. 419 sq.m) will accommodate 4 no. medium voltage (MV) substation rooms and 1 no. control room. The overall height of the proposed building is c. 6.2 metres. This building is also rectilinear in its plan, with external materials and finishes selected to match the proposed 110kV GIS substation building.
- 5.13 The layout and location of this smaller-scale building has been carefully considered to provide a visual screening of the adjacent transformers, and to locate the lower building height adjacent to the link road to the west, thereby reducing the visual impact of the overall substation layout on the link road. This approach is further reinforced by the significant buffer planting to be provided alongside the compound and the high quality materials to be utilised in the building facades.

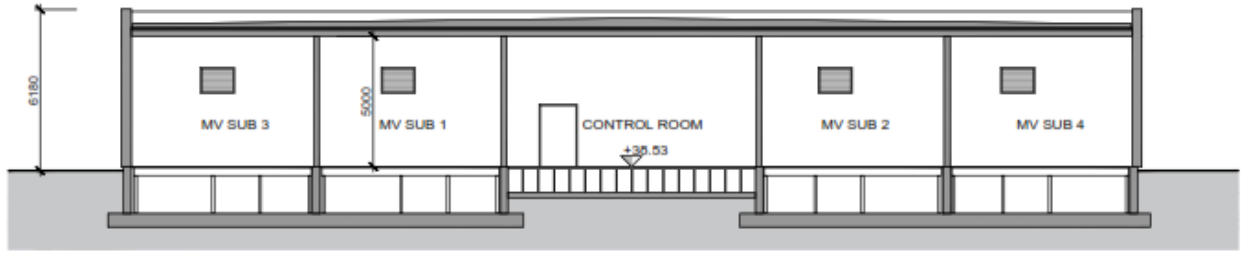


Figure 5.6: Extract from Reddy Architecture + Urbanism Section Drawing for the Client Control Building

Transformers

- 5.14 Four transformers are proposed, to be sited to the north of the 110kV GIS substation building and to the east of the client control building, thereby screening them from view from the nearby permitted link road route. Fire walls will be provided between each of the transformers, with lightning protection masts provided above the fire walls and at both ends of the row of transformers.
- 5.15 As illustrated within the Reddy Architecture + Urbanism drawing pack, the transformer fire walls will have a height of c. 9.9 metres, while the height to the top of the lightning protection masts will be c. 13.7 metres above ground level. The section drawings through the substation compound, and the accompanying photomontages in the appendices to the EIAR demonstrate that the transformers and electrical plant will be effectively screened from view along the permitted link road adjacent to the substation site.

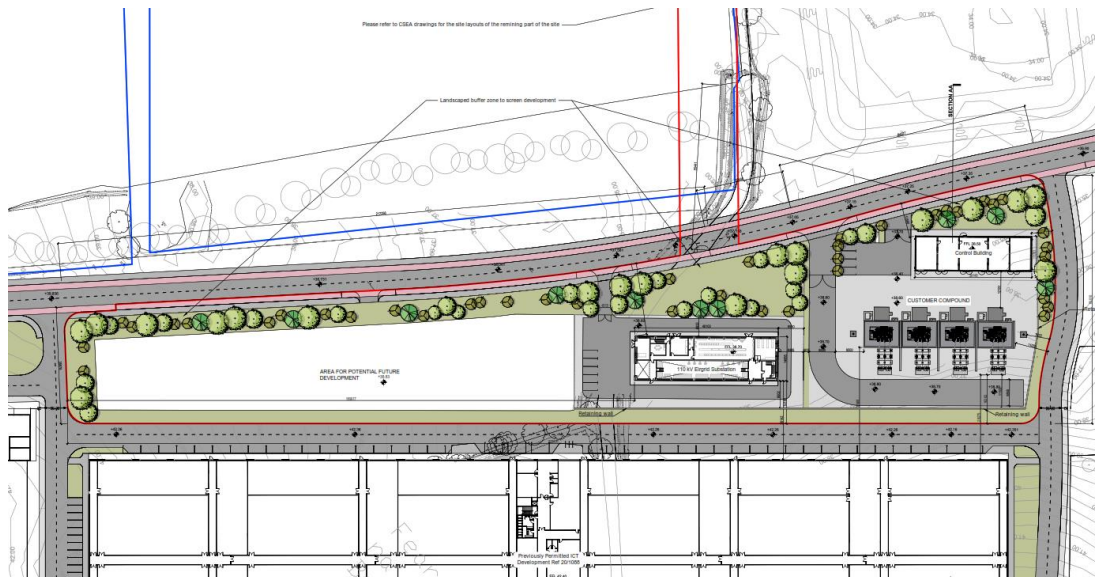


Figure 5.7: Extract of the Site Layout of the proposed substation element of the development prepared by Reddy Architecture + Urbanism.

Dropdown 110kV Transmission Line Connections

- 5.16 The two proposed dropdown 110kV transmissions lines connecting to the existing 110kV overhead transmission lines will comprise the provision of two dropdown

masts (c. 17 metres in height) and associated overhead transmission lines, transitioning to underground transmission lines set within ducts that will subsequently progress into the 110kV GIS substation building.

- 5.17 The design of the proposed masts is set out within the accompanying application drawings (refer to the CSEA Consulting Engineers drawing pack), while the visual impact of the masts is addressed within the accompanying Visual Impact Assessment forming part of the EIAR. The masts have been carefully sited, and are along the existing route of an overhead line, set well back from the closest residential properties within agricultural lands.



Figure 5.8: Example of one of the proposed dropdown masts (extract from photomontage within Appendix 10.1 of the EIAR)

Proposed Transmission Line Connections

- 5.18 The proposed 110kV underground transmission line connections will connect the proposed GIS substation to the existing 110kV overhead lines to the northwest of the substation site. The transmission line connection to serve the proposed substation will also form part of the transmission network and will carry a voltage of 110kV.
- 5.19 The proposed route detailed on the accompanying drawings comprises a double circuit connection, primarily consisting of underground transmission cables, associated pull pits, junction bays, and all associated ductwork, ancillary and construction works. The CSEA drawing pack includes sections of the cables and ductwork, along with details of the associated joint bays and ancillary development.
- 5.20 The proposed route involves breaking into an existing overhead 100kV transmission line, including the provision require the construction of two drop-down transmission line masts in order to loop in and out of the existing overhead line. This will involve the retiring of the length of existing overhead line between the two new dropdown mast locations.
- 5.21 The connection route will utilise horizontal directional drilling to cross beneath railway infrastructure and major services along the routes. The location of directional drilling is set out within the accompanying application drawings.
- 5.22 The proposed 110kV underground transmission lines form a loop that will be divided into two circuits, Circuits A and B.

- 5.23 Proposed Circuit A proceeds from the site of the proposed 110kV GIS substation westwards, crossing the nearby railway line, then proceeds south-west along the R772 to cross the Moneylane Stream and crosses underneath the M11 motorway at Junction 21, then proceeds along the L6187, enters agricultural lands adjacent to Knockeneahan Road, and terminates at the existing 110 kV Arklow – Banoge overhead line.
- 5.24 Proposed Circuit B proceeds from the site of the proposed 110kV GIS substation westwards, crossing the nearby railway line, the Moneylane Stream, the R772, and the M11, then traverses lands within the Arklow IDA Business Park, and open agricultural lands adjacent to the M11 and Knockeneahan Road (L2190) and terminates at the existing 110 kV Arklow – Banoge overhead line.
- 5.25 The Engineering Drawing Pack for the cable routes prepared by CSEA Consulting Engineers includes a series of site layout plans at a scale of 1:500 detailing the proposed grid connection routes and the associated dropdown masts. Elevations of the dropdown masts are also included within this pack. The site layout plan and drawings for the substation compound and buildings, and the overall Site Location Map are included within the Reddy Architecture + Urbanism Drawing pack. There is also a separate drawing pack in respect of civil engineering proposals prepared by Alan Traynor Consulting Engineers, and a lighting layout drawing is included as an appendix to the report prepared by Homan O’Brien.

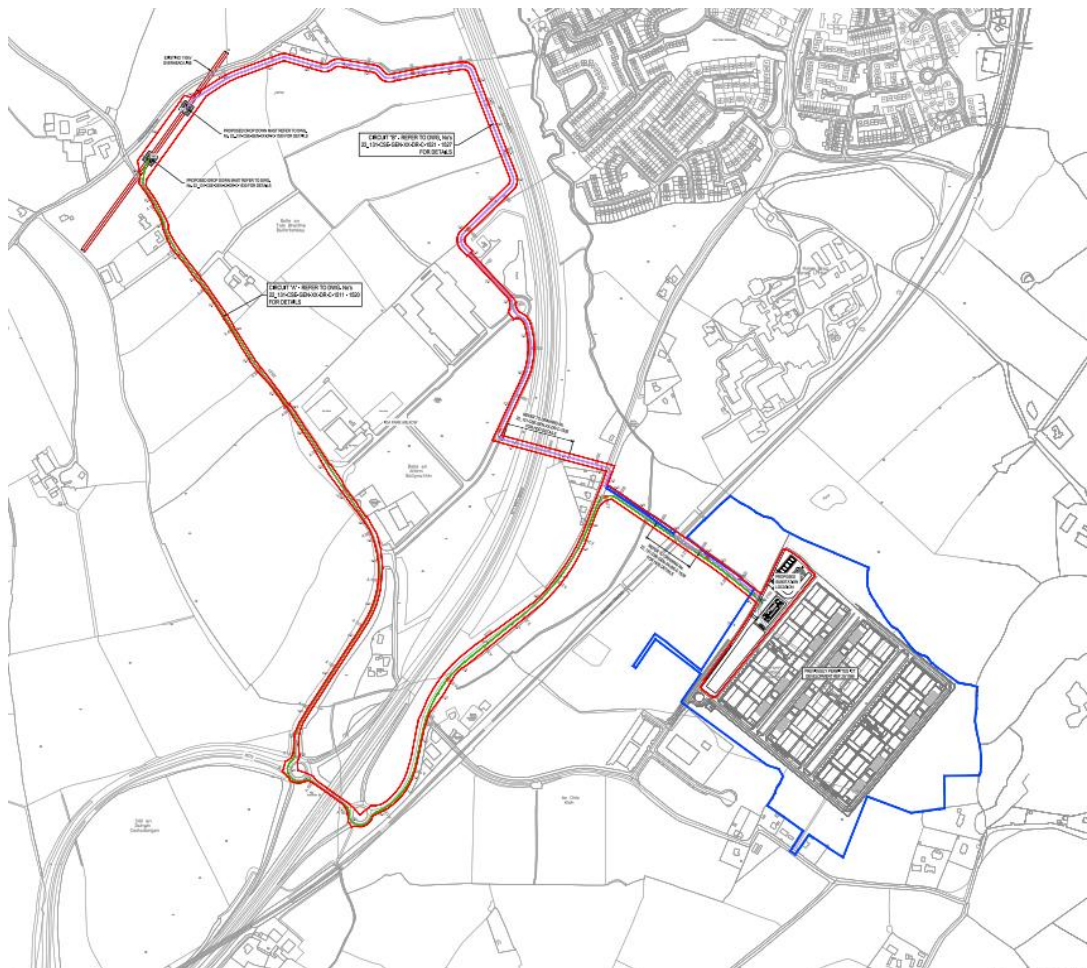


Figure 5.9: Extract from Clifton Scannell Emerson Associates Overall Route Layout Plan

Associated and Ancillary Works

- 5.26 A landscaped buffer zone is proposed to the northwest of the substation building, along the permitted link road adjoining the subject site. To the south of subject site an area for future development is provided with planting along the future road. This landscaped buffer ensures an appropriate quality of frontage to the adjacent permitted link road (which was permitted as part of the surrounding ICT facility development). As set out above, the layout and design of the substation, and the landscaping proposals have been carefully considered to ensure that the appearance and visual impact of the proposed development is appropriate and will not detract from the amenity of the permitted roadway (notwithstanding that the link road is located across a landholding zoned for commercial / industrial type development). We refer to the Architectural Design Statement (which includes a landscape design statement prepared by the project Landscape Architect) and the LVIA forming part of the
- 5.27 The proposed development includes enabling works, services diversions, masts, and connections to the substation and the overhead lines.
- 5.28 The proposed development also includes all associated landscaping, services, all associated construction works, and all ancillary works.

Requirement for the Proposed Development

- 5.29 The applicant is not a Local Authority or a State Body (as set out under Part XI of the Planning and Development Act as amended). The applicant is a private entity and requires electricity connections to power its permitted development of the adjoining lands at Kish Business Park. The development will also provide capacity for other potential future development in the vicinity.
- 5.30 Permission for a data storage facility development has previously been granted on the lands within which the proposed substation is located. Any additional or alternate development on the adjoining lands will be subject to separate future planning application(s) and environmental assessment (if required).

6.0 RELEVANT NATIONAL AND REGIONAL POLICY CONTEXT

National Planning Framework – Ireland 2040

- 6.1 The National Planning Framework was published in February 2018 and contains policies which are supportive of the development of ICT infrastructure.
- 6.2 National Strategic Outcome 6 of the NPF relates to the creation of “*A Strong Economy Supported by Enterprise, Innovation and Skills*”. This strategic outcome is underpinned by a range of objectives relating to job creation and the fostering of enterprise and innovation.
- 6.3 The following objective, relating to ICT infrastructure is included under National Strategic Outcome 6:
- “Promotion of Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities.”*
- 6.4 The current application proposes the provision of electricity infrastructure which will serve a permitted ICT facility development and facilitate the development of the wider area, and is therefore considered to be in accordance with the foregoing policies.

6.5 The NPF further states under National Strategic Outcome 6:

“Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. This sector underpins Ireland’s international position as a location for ICT and creates added benefits in relation to establishing a threshold of demand for sustained development of renewable energy sources.”

6.6 As noted above, the proposed development constitutes the development of the grid to serve a permitted ICT facility development and is therefore considered to fully accord with the foregoing strategic outcome.

6.7 The NPF states at Section 4.4 that *“Planning to accommodate strategic employment growth at regional, metropolitan and local level should include consideration of: Locations for new enterprises, based on the extent to which they are people intensive (i.e. employees/ customers), space extensive (i.e. land), tied to resources, dependent on the availability of different types of infrastructure (e.g. telecoms, power, water, roads, airport, port etc.) or dependent on skills availability.”*

6.8 National Policy Objective 47 is *“In co-operation with relevant Departments in Northern Ireland, strengthen all-island energy infrastructure and interconnection capacity, including distribution and transmission networks to enhance security of electricity supply.”* As set out above, the proposed development represents the development of the electricity grid to provide a secure supply to permitted development in the area.

Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly

6.9 The Eastern and Midlands Regional Assembly (EMRA) have adopted the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Region.

6.10 The RSES recognises the need to facilitate the provision of sufficient electricity to meet increasing demand in the region. Regional Policy Objective (RPO) 10.20 states the following:

“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. Including 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.”

6.11 The proposed development constitutes a transmission project which is required to serve the electricity needs currently permitted and future development in the area in accordance with the foregoing objective.

6.12 The strategy goes on to state the following:

“The Dublin Region is the major load centre on the Irish electricity transmission system. Approximately one third of total demand is located here, similarly the Eastern Region is a major load centre on the Irish transmission system. The main

urban demand centres are composed of a mix of residential, commercial and industrial demand, which is expected to grow up to 2025 and beyond. Developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewable generation and also to facilitate future growth in electricity demand. These developments will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the Region is to attract high technology industries that depend on a reliable, high quality, electricity supply.”

- 6.13 The RSES provides for a series of principles, pursuant to which Local Authority Development Plans will “*facilitate the provision of energy networks in principle*”:
- *“The development is required in order to facilitate the provision or retention of significant economic or social infrastructure.*
 - *The route proposed has been identified with due consideration for social, environmental and cultural impacts and address issues of climate resilience, biodiversity, impact on soils and water quality.*
 - *The design is such that it will achieve least environmental impact.*
 - *Where impacts are inevitable mitigation features have been included.*
 - *Where it can be shown that the proposed development is consistent with international best practice with regard to materials and technologies and that it will ensure a safe, secure, reliable, economic and efficient high-quality network.*
 - *In considering facilities of this nature that traverse a number of counties or that traverse one county in order to serve another, planning authorities should consider the proposal in light of the criteria outlined above. It is important that planning authorities are engaged in early consultation and discussion with the relevant Transmission System Operator.*
 - *Corridors for energy transmission or pipelines should avoid creating sterile lands proximate to key public transport corridors, particularly rail routes, and in built up urban areas.*
 - *Regard for any National or Regional Landscape/ Seascape Character Assessment.”*
- 6.14 In response to the above it is considered that the proposed, comparatively localised, electricity transmission infrastructure is required to facilitate significant economic infrastructure in the area. It is also considered that the route for the proposed transmission line connections has been identified with due consideration for social, environmental and cultural impacts (as set out in detail within the EIAR). The design selected has been predicated on the need to minimise environmental impact and includes mitigation measures as set out within the EIAR submitted herewith. The design of the project has been undertaken in accordance with best practice by the project engineers, and the corridor selected will avoid the sterilisation of lands proximate to key public transport corridors, particularly rail routes, or built up urban areas.
- 6.15 Regional Policy Objective RPO 10.20 is to “*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.”*

7.0 LOCAL PLANNING POLICY

- 7.1 This proposed development comprises of development within the functional area of Wicklow County Council.

Wicklow County Development Plan 2022 – 2028

- 7.2 The Wicklow County Development Plan is the statutory planning document that covers the entire Wicklow administrative area. The Plan came into effect the 23rd of October 2022.
- 7.3 The Draft Development Plan states that *“In accordance with the Settlement Hierarchy and the Economic Development hierarchy, the towns of Bray, Wicklow-Rathnew, Arklow, Greystones-Delgany and Blessington are the key focus for economic growth within the County.”*

Economic Development

- 7.4 Chapter 9 of the Development Plan relates to the economic development of the County. This chapter recognises the importance of encouraging business to locate in the County, at locations identified for employment growth. It is an objective of the Council to facilitate economic development and the growth of employment in the county.
- 7.5 Under the CPD, Arklow is identified as a *“market towns that have a good level of local employment, services and amenities, which serve not just their resident populations but a wider catchment area”* and further states that *“It is recognised that these towns have capacity for continued commensurate growth to become more self-sustaining and to attract high quality knowledge-based employment at strategic accessible locations. The regional ports are recognised in the RSES as important centres of economic activity, and the RSES seeks to protect and support the role of regional ports, including Wicklow and Arklow, as economic drivers for the Region.”*
- 7.6 Section 9.4 states that *“In accordance with the Settlement Hierarchy and the Economic Development hierarchy, the towns of Bray, Wicklow-Rathnew, Arklow, Greystones-Delgany and Blessington are the key focus for economic growth within the County.”*
- 7.7 Objective CPO 9.1 is *“To support all forms of employment creation, especially where this can mitigate long distance commuting, subject to the proper planning and sustainable development of the area and compliance with all other objectives of this plan. Strategic employment development will be directed into the towns of Bray, Wicklow-Rathnew, Arklow, Greystones and Blessington.”*
- 7.8 The proposed substation and associated transmission cable connections will serve the ongoing development of an area of the county which has been specifically targeted for enterprise and employment creation.
- 7.9 Objective CPO 9.3 is *“To normally require new employment generating developments to locate on suitably zoned or identified land in settlements. Proposals in settlements with no zoning plan should be assessed on the basis of their individual merits, taking into consideration the objectives set out in this chapter of the plan and all other matters pertaining to the proper planning and sustainable development of the area, including ensuring that the proposal is appropriately sited in a location so that it enhances, complements, is ancillary to or neutral to the existing land uses in*

the area. All other proposals for employment generating developments outside of settlements will be assessed on the 'Objectives for Wicklow's Rural Economy'."

- 7.10 The proposed transmission line is partially not subject to an existing zoning objective, however the part of the line that is unzoned falls primarily within public roads and relates to transmission lines only.
- 7.11 In relation to the Information & communications technology sector, the CDP states that *"The information and communications sector forms the second largest industrial group in Wicklow."* The proposed substation and transmission line connections will serve nearby permitted ICT facility development, and facilitate the development of the wider area.

Energy & Information Infrastructure

- 7.12 Chapter 16 of the Development Plan supports the development of grid connections to the transmission network (110kV/220kV).
- 7.13 Section 16.2.1.7 states that *"Electricity generation installations require grid connection (obviously other than small scale projects). Depending on the amount of electricity generated, grid connections can be either through direct connection to the transmission network (110KV/220kV), controlled by Eirgrid or to a local distribution system (normally 38kV), controlled by ESB networks."*
- 7.14 The following policies and objectives are relevant to the proposed development.
- 7.15 Objective CPO 16.14 is *"To support the development and expansion of the electricity transmission and distribution grid, including the development of new lines, pylons and substations as required."*
- 7.16 Objective CPO 16.20 states that *"Proposals for the undergrounding of cables should demonstrate that environmental impacts including the following are minimised:*
- *Habitat loss as a result of removal of field boundaries and hedgerows by topsoil stripping*
 - *Short to medium term impacts on the landscape where, for example, hedgerows are encountered;*
 - *Impacts on underground archaeology;*
 - *Impacts on soil structure and drainage; and*
 - *Impacts on surface waters as a result of sedimentation."*

Arklow and Environs Local Area Plan 2018-2024

- 7.17 This proposed development is sited within the functional area of Wicklow County Council. The figure below is an extract from the zoning map for this area, as per the Arklow and Environs Local Area Plan 2018-2024, illustrating the approximate location of the proposed 110kV GIS substation and associated transmission lines.
- 7.18 The proposed substation site, is zoned 'E – Special Employment' in the LAP, for which the objective is as follows:

'To provide for large, single undivided employment development'. In accordance with the LAP, development on 'E Special' zoned lands is required to 'facilitate the development of a particular type of employment provision, that is, to provide for large, single, undivided employment development, such as 'direct foreign investment'

businesses and would be likely to appeal to multinationals or significant IT (such as data centres) / green technology / pharmaceutical industries’.

7.19 Permissible uses under the applicable zoning include ‘a larger scale employment generating development and ancillary developments for employment and industry uses in accordance with the CDP’. In this regard, a larger scale employment generating development is permitted on lands surrounding the substation site (i.e. the permitted ICT facility development), with the proposed substation forming an element of ancillary development. The proposed transmission lines primarily fall within public roads and are partially zoned E Special Employment and partially zoned E1 Employment.

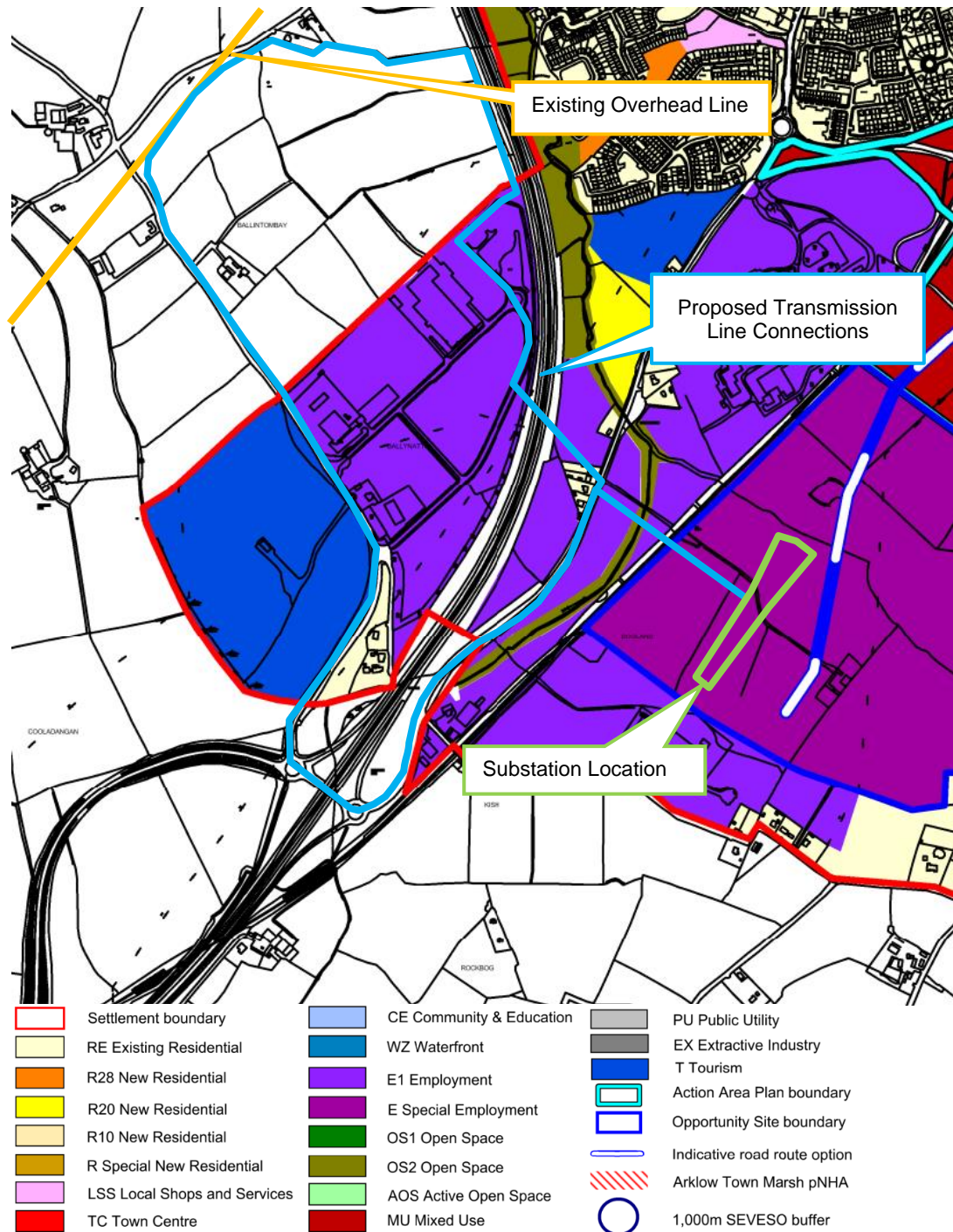


Figure 7.1: Extract of Zoning Map of the Arklow and Environs Local Area Plan 2018-2024

7.20 The transmission line is partially located outside the LAP boundaries. However, this part of the transmission line falls primarily within public roads and partially on agricultural lands in order to provide dropdown connections to existing overhead lines. On this basis the proposed development is considered acceptable in land use and zoning terms.

8.0 ENVIRONMENTAL IMPACT ASSESSMENT AND APPROPRIATE ASSESSMENT

8.1 An Environmental Impact Assessment Report (EIAR) including a Non-Technical Summary has been prepared / coordinated by AWN Environmental Consultants and is submitted along with this application.

8.2 An Appropriate Assessment Screening Report has also been prepared and is included as an Appendix of the EIAR and as a separate stand alone report.

9.0 CONCLUSION

9.1 This application under section 182 of the Planning and Development Act 2000, as amended, is submitted on behalf of the prospective applicant Crag Wicklow Limited. The current application relates to the proposed provision of a new 110kV GIS substation on a site to the north of the existing Kish business park, Arklow, Co. Wicklow, and the provision of 110kV transmission line connections between the proposed 110kV substation and the existing Arklow – Banoge 110kV overhead lines.

9.2 This project is designed to support current power demand and future growth within the area of the proposed substation.

9.3 The proposal is in accordance with the policies and objectives of national and regional planning policy, the Wicklow County Development Plan 2022-2028, and the Arklow and Environs Local Area Plan 2018-2024.

9.4 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. The applicant and design team in preparing the application documentation have considered the issues raised within the pre-application consultations undertaken with An Bord Pleanála and their determination issued prior to the lodgement of this application.

9.5 If you require any further information, or clarification on the above, please do not hesitate to contact us.

Yours faithfully,



John Spain Associates

APPENDIX 1: EXTRACT OF BOARD CONFIRMATION THAT THE PROPOSED DEVELOPMENT CONSTITUTES STRATEGIC INFRASTRUCTURE DEVELOPMENT

Our Case Number: ABP-311778-21

Your Reference: Crag Wicklow Limited



John Spain Associates
39 Fitzwilliam Place
Dublin 2
D02 ND61

Date: 28 June 2022

Re: Provision of a 110kV GIS substation and associated development on a site to the north of the existing Kish Business Park, Arklow, Co. Wicklow
Arklow, Co. Wicklow

Dear Sir / Madam,

Please be advised that following consultations under section 182E of the Planning and Development Act, 2000, as amended, the Board hereby serves notice that it is of the opinion that the proposed development falls within the scope of section 182A of the Planning and Development Act, 2000 as amended.

Accordingly, the Board has decided that the proposed development would be strategic infrastructure within the meaning of section 182A of the Planning and Development Act, 2000, as amended. Any application for approval for the proposed development must therefore be made directly to An Bord Pleanála under section 182A(1) of the Act.

The Board considers that the pre-application consultation process in respect of this proposed development is now closed. Attached is a list of prescribed bodies to be notified of the application for the proposed development.

The Board will make available for inspection and purchase at its offices the documents relating to the decision within 3 working days following its decision in accordance with section 146(5) of the Act. This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

In accordance with the fees payable to the Board and where not more than one pre-application meeting is held in the determination of the case, a refund of €3,500 is payable to the person who submitted the pre-application fee. As only one meeting was required in this case, a refund of €3,500 will be sent to you in due course.

Also, attached is information in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter please contact the undersigned officer of the Board.

Tel	Tel	(01) 858 8100
Glaao Áitiúil	LoCall	1890 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	www.pleanala.ie
Ríomhphost	Email	bord@pleanala.ie

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Jennifer Sherry

Jennifer Sherry
Executive Officer
Direct Line: 01-8737266

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