

An Bord Pleanála
64 Marlborough Street
Dublin 1

Our Ref: 16008

12th April 2021

Re : Planning and Development Act 2000-2019 and the statutory regulations (as amended). Application by Edgeconnex Ireland Ltd. for planning permission for the provision of two no. 110kV transmission lines along with associated and ancillary works. The proposed transmission lines will connect the permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation compound that was granted permission under SDCC Reg. Ref. SD18A/0298 with the existing Grange Castle – Kilmahud Circuits. The site of the proposed development has an area of c. 1.49 hectares. The two proposed underground single circuit 110kV transmission lines will connect the permitted Coolderrig 110kV GIS Substation, within the existing Edgeconnex landholding, to the existing Grange Castle - Kilmahud Circuits to the east. The proposed transmission lines cover a distance of approximately 559m and 574m within the townland of Grange, Dublin 22. The route of the transmission lines will pass along and under the internal road infrastructure within the Edgeconnex site and Grange Castle Business Park; above the culverted Griffeen River and along a wayleave to the north of the Griffeen River to the joint bays where it will connect into the Grange Castle – Kilmahud Circuits. The development includes the connections to the permitted Coolderrig substation as well as to the Grange Castle – Kilmahud Circuits, as well as changes to the landscaping within the Grange Castle Business Park and all associated construction and ancillary works. The permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation includes a two storey GIS Substation building (with a gross floor area of 556sqm) (known as the Coolderrig Substation), associated underground services; 2 no. transformers and single storey MV switch room (180sqm) within a 2.6m high fenced compound, and all associated construction and ancillary works.

Dear Sir / Madam,

We, Marston Planning Consultancy, 23 Grange Park, Foxrock, Dublin, D18 T3Y4; are instructed by Edgeconnex Ireland Ltd. (herein referred to as the 'applicant'), and further to a determination received from An Bord Pleanála confirming the proposed development constitutes Strategic Infrastructure Development (SID) pursuant to Section 182A of the Planning and Development Act 2000, as amended (hereinafter referred to as 'the Act'), to hereby submit this planning application in respect of the Proposed Development for the project as outlined in the Statutory Notice that accompanies this application.

1. INTRODUCTION

The Proposed Development comprises:

- The proposed development primarily comprises the provision of two no. 110kV transmission lines along with associated and ancillary works. The proposed transmission lines will connect the permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation compound that was granted permission under SDCC Reg. Ref. SD18A/0298 with the existing Grange Castle – Kilmahud Circuits. The site of the proposed development has an area of c. 1.49 hectares.
- The two proposed underground single circuit 110kV transmission lines will connect the permitted Coolderrig 110kV GIS Substation, within the existing Edgeconnex landholding, to the existing Grange Castle - Kilmahud Circuits to the east. The proposed transmission lines cover a distance of approximately 559m and 574m within the townland of Grange, Dublin 22. The route of the transmission lines will pass along and under the internal road infrastructure within the Edgeconnex site and Grange Castle Business Park; above the culverted Griffeen River and along a wayleave to the north of the Griffeen River to the joint bays where it will connect into the Grange Castle – Kilmahud Circuits.

- The development includes the connections to the permitted Coolderrig substation as well as to the Grange Castle – Kilmahud Circuits, as well as changes to the landscaping within the Grange Castle Business Park and all associated construction and ancillary works.
- The permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation includes a two storey GIS Substation building (with a gross floor area of 556sqm) (known as the Coolderrig Substation), associated underground services; 2 no. transformers and single storey MV switch room (180sqm) within a 2.6m high fenced compound, and all associated construction and ancillary works.

The details of the proposed development, and the permitted substation, are discussed at Section 5 of this report and illustrated in the accompanying architectural and engineering drawings.

An Environmental Impact Assessment (EIA) Report has been prepared by Marston Planning Consultancy and other EIA contributors and accompanies this SID planning application submitted to An Bord Pleanála.

The proposed development is designed to support power demand for the permitted data centres and offices on the Edgeconnex campus. The permitted developments under SDCC Reg. Ref. SD16A/0214; SD16A/0345; SD17A/0141 / SD17A/0392; and SD18A/0298 were subject to separate planning applications and EIA Reports and are located to the west /south-west of the permitted and under construction Coolderrig 110kV GIS substation.

The Proposed Development will also facilitate the decommissioning of the Power Plant granted under SDCC Reg. Ref. SD16A/0345 and subsequently extended for a further two years under SDCC Reg. Ref. SD19A/0342.

The route alignment has been the subject of discussions and agreement with the relevant landowner / Planning Authority prior to lodgement (see letter of consent submitted herewith from South Dublin County Council [SDCC]).

The main stakeholders for the development are as follows:

- EirGrid, is responsible for operating and developing the national high voltage electricity grid in Ireland;
- ESB Networks, (Asset Owner) is responsible for carrying out maintenance, repairs and where works are not contestable, the construction of the national high voltage electricity grid in Ireland; and
- Edgeconnex Ireland Ltd.'s role for this project is to act as the Developer/Applicant.

Development method

The development of the proposed 2 no. underground single circuit transmission lines will be a contestable development. The meaning of this, is the developer will be responsible for the design, construction, fit-out and pre-commissioning of the 2 no. underground single circuit 110kV transmission lines to the permitted and under construction Coolderrig 110kV GIS substation from the tie in to the Grange Castle – Kilmahud Circuit.

Upon completion of the works by the Developer, the 2 no. underground single circuit 110kV transmission lines and the permitted and under construction Coolderrig 110kV GIS substation will be handed over to EirGrid, whom in conjunction with ESB Networks (ESBN) will carry out the final commissioning and energisation of the substation and 110kV transmission lines.

Once energised, the proposed 2 no. underground single circuit transmission lines and the permitted and under construction Coolderrig 110kV GIS substation will form part of the ESBN infrastructure, which EirGrid will be responsible for operating.

Applicant

The Applicant is the same as for the Permitted Development where they have been granted permission to build several data centres and associated offices, as well as the permitted and under construction Coolderrig 110kV GIS substation within their campus.

The Applicant has a registered address at 6th Floor South Bank House, Barrow Street, Dublin, D04 TR29. The main agent acting on behalf of the Applicant is Marston Planning Consultancy Ltd., with an address at 23 Grange Park, Foxrock, Dublin, D18 T3Y4.

2. SITE LOCATION AND CONTEXT

The Proposed Development is to be located on a site of c. 1.49ha. that consists of two parts. Firstly, the Coolderrig substation compound is located at the north-east corner within an under-construction data centre campus of the applicant (Edgeconnex Ireland Ltd.). The second part of the Proposed Development site consists of a linear route from the substation compound through the north-east corner of the Edgeconnex campus and under roads and lands within the Grange Castle Business Park.

The Applicants landholding and campus is bound by the Grand Canal and a road along its southern side as well as planting, including a road bridge (recently upgraded as part of the R120 scheme) to the north; the Takeda facility, sub-station, internal access roads and by undeveloped parts of the Grange Castle Business Park to the east; and a Microsoft data centre facility to the south. The campus is bounded by the R120 Newcastle Road and properties bounding this road to the west.

A number of permissions cover their campus. The data centres permitted under SDCC Reg. Ref. SD16A/0214 and SDCC Reg. Ref. SD16A/0345 have been built and are in operation at the southern end of the site. The data centre permitted under SDCC Reg. Ref. SD17A/0141 and amended under SDCC Reg. Ref. SD17A/0392 is partially built at the western edge of the campus.

The permission granted under SDCC Reg. Ref. SD16A/0345 as well as granting a data centre also permitted the existing temporary gas powered generation plant that sits to the immediate east of their campus on lands owned by Takeda. The temporary gas powered generation plant has been built and has been in operation for a number of years and provides power to the built data centres on their campus so that they can operate. This permission received its Final Grant of permission on the 10th January 2017. Condition no. 3 of SDCC Reg. Ref. SD16A/0345 stated that the use of the temporary gas generation plant was permitted for a period of three years only. A further two years extension to this permission was granted under SDCC Reg. Ref. SD19A/0342 on the 4th February 2020. The Proposed Development will facilitate the decommissioning of this temporary gas powered generation plant.

The permitted and under construction 110kV GIS Substation Compound and a short length of the transmission lines are located on land within the ownership of the Applicant. The majority of the transmission lines are on lands that are in the control or ownership of SDCC. A letter of consent from SDCC is included within the planning application documentation for the Proposed Development.

110kV transmission line to the Grange Castle - Kilmahud Circuit

The route of the underground 110kV transmission lines to the Grange Castle – Kilmahud Circuits passes from the under construction substation compound within the Edgeconnex campus along the permitted internal access of their site for 70-80m. It then passes along under the internal road and bus terminus within the Grange Castle Business Park for c. 200m to a point just south of the Griffeen River. A Push Pull pit is proposed c. 150m along each transmission line to enable cabling to be pulled through the ducting given the length of the route from the joint bays at the Grange Castle – Kilmahud Circuits.

The route of the underground 110kV transmission lines will pass over the culverted Griffeen River before passing along an existing wayleave parallel and to the north of the open Griffeen River before each transmission line ties in with the Grange Castle – Kilmahud Circuits. The length of the 110kV cable routes is c. 559m and 574m. A proposed joint bay is to be installed at the connection to the Grange Castle - Kilmahud circuit.

The Proposed Development is not located directly adjacent to any areas of national or local environmental sensitivity/designation (Refer to Chapter 6 - Biodiversity for further details). The proposed Grand Canal NHA is located c. 85m to the north at its nearest point to the transmission lines. The need for the Proposed Development is described on page 3 of Chapter 1 of the EIA Report.

Permitted and under construction 110kV Substation

The Coolderrig 110kV GIS substation is located in the north-east part of the overall Edgeconnex campus. The substation received a Final Grant of permission on the 27th November 2018. The permission was subject to 25 conditions. The permitted substation includes a two storey GIS Substation building (with a gross floor area of 556sqm) (known as the Coolderrig Substation), associated underground services; 2 no. transformers and single storey MV switch room (180sqm) within a 2.6m high fenced compound. The substation is due to be completed in the summer of 2021. A full description of the permitted development and the overall Edgeconnex campus is outlined in Chapter 3 of the EIAR that accompanies this application.

3. PRE-APPLICATION CONSULTATIONS

The Applicant has had 1 no. pre-application consultation meeting with An Bord Pleanála on the 11th January 2021, in response to a pre-application consultation request received by An Bord Pleanála on the 13th of November 2020.

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. Consultation has also been undertaken with Eirgrid and ESB Networks to ensure the Proposed Development design meets their requirements.

A request to conclude the pre-application process was submitted to An Bord Pleanála on the 20th January 2021.

An Bord Pleanála determination

An Bord Pleanála have confirmed in a letter dated the 4th of February 2021 that the proposed development constitutes Strategic Infrastructure Development within the meaning of section 182A of the Act. Therefore, the current application is required to be submitted directly to An Bord Pleanála under section 182A (1) of the Act. 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.

4. RELEVANT PLANNING HISTORY

This section sets out relevant Planning History within the Edgeconnex site and Proposed Development site as well as the immediate local area.

Edgeconnex campus

Reg. Ref. SD16A/0176

A planning application was lodged with South Dublin County Council for enabling works on the southern part of the site to the east of the R120 to carry out the required demolition, earthworks and site preparation works to facilitate the Proposed Development. This application was made prior to the making of application under Reg. Ref. SD16A/0214 in order to facilitate the clearing of the site for future development.

Reg. Ref. SD16A/0214

A decision to grant planning permission for phase 1 of the development of this Edgeconnex data centre campus to the east of the R120 was made on the 11th August 2016. The proposed data centre and associated elements has a gross floor area of 5,839sqm. The permitted and now built development consists of the following primary components:

- 1 no. single storey data halls with roof plant and stand-by generators to be located to its east to be built primarily on the northern part of the southern extent of the overall site;
- Single storey goods receiving area and storage, and single storey office to be located to the north of the data hall; and
- ESB sub-station in the position of the currently under construction substation.

The overall height of the development is dictated by the parapet screen to the roof plant of the data hall that is circa 10.5m above finished ground level. The other building elements will be lower. External plant consisting of 6 no. standby generators will be located to the east of the data hall. The standby generators will be screened from view. Mechanical units will be located on the roof and will also be screened from view and treated similar to adjacent developments. The generator flues will extend circa. 15m above ground level above each generator.

Reg. Ref. SD16A/0345

Permission was granted on the 10th January 2017 to extend the data centre facility by the construction of a new data centre of 4,176sqm to the immediate south of the data centre permitted under Reg. Ref. SD16A/0214. The permitted data centre and associate elements include the following primary components:

- 1 no. single storey data halls with roof plant and 5 no. stand-by generators to be located to its east to be built to the immediate south of the data hall and generators permitted under Reg. Ref. SD16A/0214;
- Temporary gas generation plant within walled yard measuring 2,811sqm and containing 12 no. 1.875 MVA sized container units to be located within the Takeda lands to the east of the site (it is this element that is the subject of this amendment application); and
- New two storey ESB substation (507sqm) with associated transformer yard and building (157.5sqm) to replace gas generation plant on upgrade of electricity connections in the area. The layout of substation was amended under Reg. Ref. SD18A/0298.

The temporary gas generator plant permitted consisted of an open walled yard of 2,811sqm that will contain 12 no. 1.875 MVA sized container units. All these are gas fired engines that result in lower emissions than the comparable diesel fired alternative. The temporary plant will operate on a continual basis until such time as the load demand can be accommodated on the electrical utility grid, which will be facilitate by the current application. The plant will be decommissioned if permission for this SID application is granted and once the grid connection is fully operational.

Reg. Ref. SD17A/0141

Permission was granted on the 14th August 2017 for a new stand-alone single storey data centre of 1,515sqm to the immediate north of the data centre, and its extension, permitted under Reg. Ref. SD16A/0214 and SD16A/0345. The attenuation pond was permitted to be enlarged under this permission.

Reg. Ref. SD17A/0392 / ABP Ref. ABP-300752-18

Permission was granted by the Board on the 26th July 2018 for a 125sqm extension and other modifications to the permission granted under SD17A/0141. The decision upheld the decision of the Planning Authority following a single third party appeal.

Reg. Ref. SD18A/0298

Permission was granted on the 27th November 2018 for development of 2 no. new single storey data centres and associated office areas, and plant, with a gross floor area of 5,823sqm. The first data centre of 1,857sqm was located to the immediate east of the data centre that was permitted and subsequently extended under Reg. Ref. SD17A/0141 / SD17A/0392. The second data centre (3,005sqm) will be located to the north of the extended data centre granted under Reg. Ref. SD17A/0141 and SD17A/0392 and to the south of the permitted attenuation pond. This permission once implemented will result in the site to the east of the R120 being fully developed.

The permission also facilitated the redesign of the ESB substation and associated transformer yard and client control building. This substation, as permitted under this application, is currently being constructed and is due to be completed during the summer of 2021.

Reg. Ref. SD19A/0342

This permission extended the duration of the permission for the temporary gas powered generation plant to the east of the Edgeconnex campus for a further two year period from the 4th February 2020. No works were associated with the permission.

Proposed Edgeconnex site to the west of the R120*Reg. Ref. SD19A/0004*

A planning application was lodged with South Dublin County Council for enabling works on the southern part of this site to the west of the R120 to carry out the required earthworks and site preparation works to facilitate the development proposed under this application. This application was granted permission in 2019. No works have commenced in relation to this permission.

Reg. Ref. SD19A/0042 / ABP Ref. PL06S.305948

Permission was granted by An Bord Pleanála on the 5th October 2020, which upheld the decision of the Planning Authority for the phased development of 4 single storey data halls within two data centre buildings all with associated plant at roof level, 32 standby generators, office and service areas, service road infrastructure, car parking, ESB substation/transformer yard. The development had an overall gross floor area of 17,685sqm.

The application also included a temporary gas-powered generation plant within a walled yard containing 19 no. generator units (15 + 4 arrangement) with associated flues (each 17m high) to be located to the west of the proposed data halls. Following a request for Further Information, the number of generators within the Power Plant was reduced to only 8 operating with two back up units and limited to a lifespan of two years. This permission has not commenced on site.

Reg. Ref. SD21A/0042

An application was lodged with the Planning Authority on the 24th February 2021 for a further extension to the applicants data centre campus to the west of the R120. The development will consist, if granted permission, of the construction of two no. single storey data centres with associated office and service areas; and three no. gas powered generation plant buildings with an overall gross floor area of 24,624sqm.

It is proposed to provide permanent power supply to the site to the west of the R120 via the GIS substation located centrally within that site and as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. Its HV connection to a suitable point of connection is yet to be defined by Eirgrid and will be applied for, if deemed to be a SID form of development, under a separate Strategic Infrastructure Development (SID) application accompanied by an EIA Report.

The interim power supply to the western campus, is required to be provided by the proposed Power Plants that form part of the application, and will be developed in a phased basis, to provide permanent power for the data centre granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948; and the rest of the western data centre campus.

Due to the Flexible Demand offer from Eirgrid for the western campus site; the Power Plants will be required to provide additional reliability of power, and will act as a back-up source of power when the connection to the national grid is unavailable. This is likely to be for relatively short periods but longer than could be sustained by the standby generators associated with all data centres on site. The Planning Authority are due to make a determination on this application by the 20th April 2021.

Grange Back-up Power site

Grange Back-Up Power Station site is located to the immediate east of the linkage to the Grange Castle – Kilmahud Circuits that form part of the current SID application. The Power Plant was originally permitted under Reg. Ref. SD15A/0061 for a period of ten years. The permission allowed for the Power Station to operate for 12 hours a day. This permission was subsequently amended under Reg. Ref. SD16A/0398 to

allow the power station to operate 24 hours a day with a reduction of the plant from 115MW under the original permission to 96MW. Neither of these permissions are yet enacted.

The permitted Grange Back-Up Power Station included for the construction of a single storey Power Station on the eastern side of the site with a parapet of 14.135m rising to 18.62m to the roof mounted air handling units and two flue clusters with a height of 25m. The Power Station included a cluster of elevated cooling modules at roof level to the rear of a 1.1m high louvered screen. The Power Station comprised six gas fired turbines as well as LV and MV switchrooms and compressor rooms.

5. DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Proposed Development will consist of:

- The proposed development primarily comprises the provision of two no. 110kV transmission lines along with associated and ancillary works. The proposed transmission lines will connect the permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation compound that was granted permission under SDCC Reg. Ref. SD18A/0298 with the existing Grange Castle – Kilmahud Circuits. The site of the proposed development has an area of c. 1.49 hectares.
- The two proposed underground single circuit 110kV transmission lines will connect the permitted Coolderrig 110kV GIS Substation, within the existing Edgeconnex landholding, to the existing Grange Castle - Kilmahud Circuits to the east. The proposed transmission lines cover a distance of approximately 559m and 574m within the townland of Grange, Dublin 22. The route of the transmission lines will pass along and under the internal road infrastructure within the Edgeconnex site and Grange Castle Business Park; above the culverted Griffeen River and along a wayleave to the north of the Griffeen River to the joint bays where it will connect into the Grange Castle – Kilmahud Circuits.
- The development includes the connections to the permitted Coolderrig substation as well as to the Grange Castle – Kilmahud Circuits, as well as changes to the landscaping within the Grange Castle Business Park and all associated construction and ancillary works.
- The permitted and under construction Coolderrig 110kV Gas Insulated Switchgear (GIS) substation includes a two storey GIS Substation building (with a gross floor area of 556sqm) (known as the Coolderrig Substation), associated underground services; 2 no. transformers and single storey MV switch room (180sqm) within a 2.6m high fenced compound, and all associated construction and ancillary works.

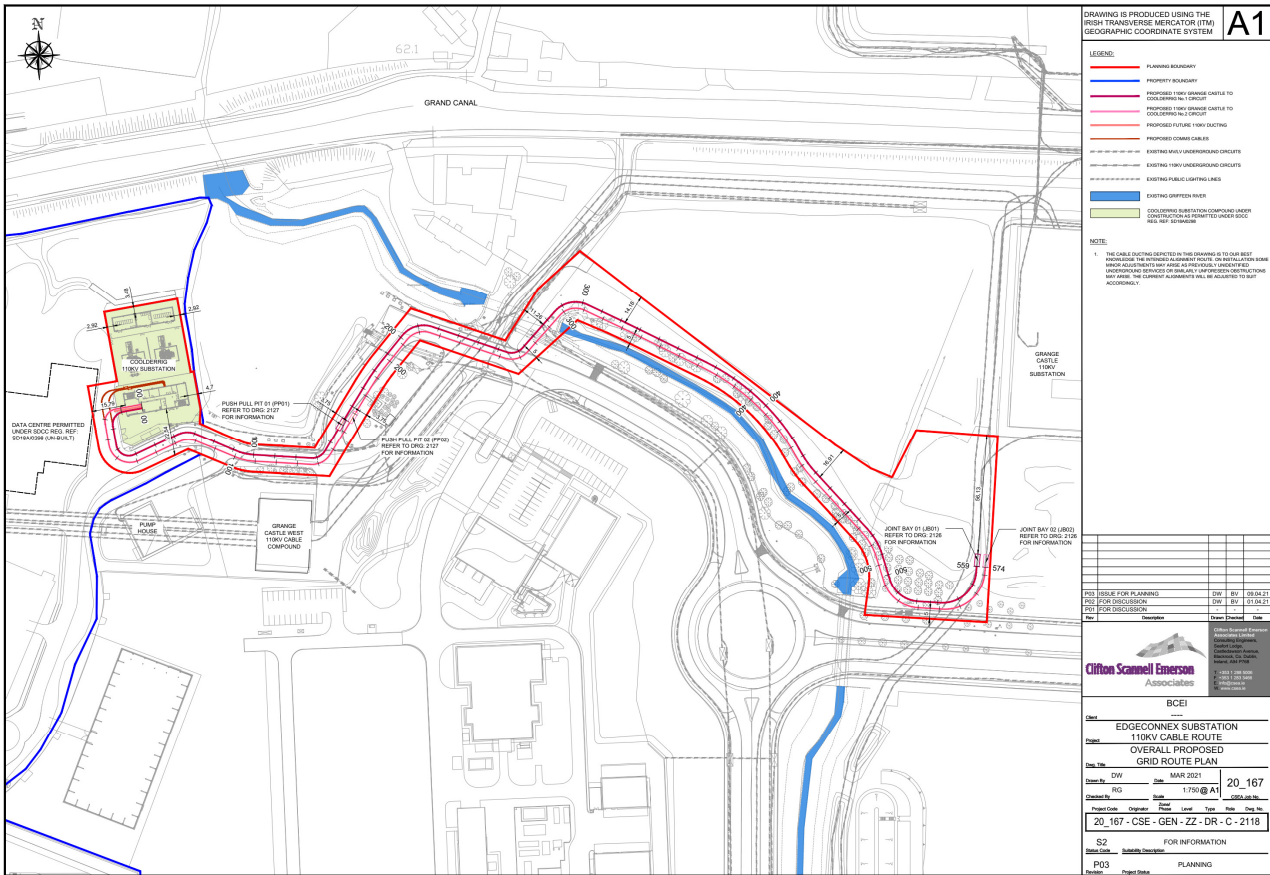
110kV transmission line to the Grange Castle - Kilmahud Circuit

The route of the underground 110kV transmission lines to the Grange Castle – Kilmahud Circuits passes from the under construction substation compound within the Edgeconnex campus along the permitted internal access of their site for 70-80m. It then passes along under the internal road and bus terminus within the Grange Castle Business Park for c. 200m to a point just south of the Griffeen River. The route of the underground 110kV transmission lines then passes over the culverted Griffeen River before passing along an existing wayleave parallel and to the north of the open Griffeen River before each transmission line ties in with the Grange Castle – Kilmahud Circuits. The length of the 110kV cable routes is c. 559m and 574m.

A proposed joint bay is to be installed at the connection to the Grange Castle - Kilmahud circuit. A Push-Pull pit is proposed c. 150m from the western end of the route along each transmission line to enable cabling to be pulled through the ducting given the length of the route from the joint bays at the Grange Castle – Kilmahud Circuits.

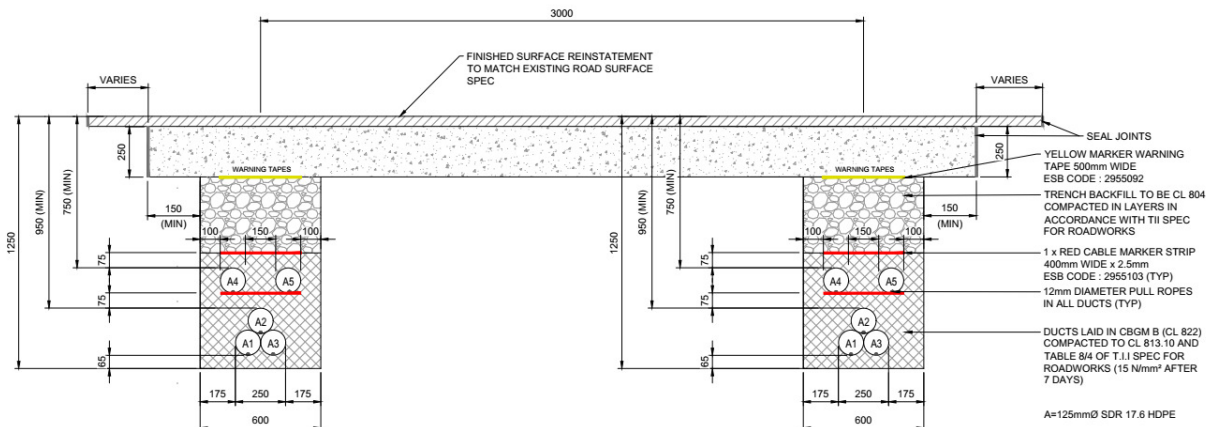
The design of each underground 110kV transmission line will comprise a single 110kV circuit installed underground in high-density polyethylene (HDPE) ducting. The 110kV cables will be a standard XLPE (cross-linked polyethylene) copper cable. XLPE does not contain oil, therefore there is no risk of migration of oil into the ground in the event of a failure (such as a short circuit, a joint fail, a termination failure etc.). These types of failures would not have the potential to result in a perceptible environmental impact.

Site investigation works have been undertaken by Site Investigations Ltd. on the instruction of the Project Engineers, along the route, and is included in full within Chapter 7 of the Appendix document of this EIA Report. The findings of these investigations informed the route selection for the transmission lines.



Proposed site layout plan of the Proposed Development site (red line) indicating proposed 110kV transmission lines (purple and pink lines) as well as the permitted development (shaded green) (Source: Drawing no. 20_167-CSE-GEN-ZZ- DR-C-2118, CSEA Consulting Engineers)

The installation of the ducting will require the excavation of one trench along each of the routes; each containing one 110kV circuit. The optimum depth of excavation of the trenches will typically be 1.25m below ground level but may increase at utility crossings. A wider shallow trench will be creates at surface (generally 0.3m depth to remove topsoil etc.. The typical width of each individual trench is 0.6m, however this may vary depending on ground conditions and the location of existing services. Five separate ducts will be installed in each trench. A typical cross section of the trenches is illustrated below.

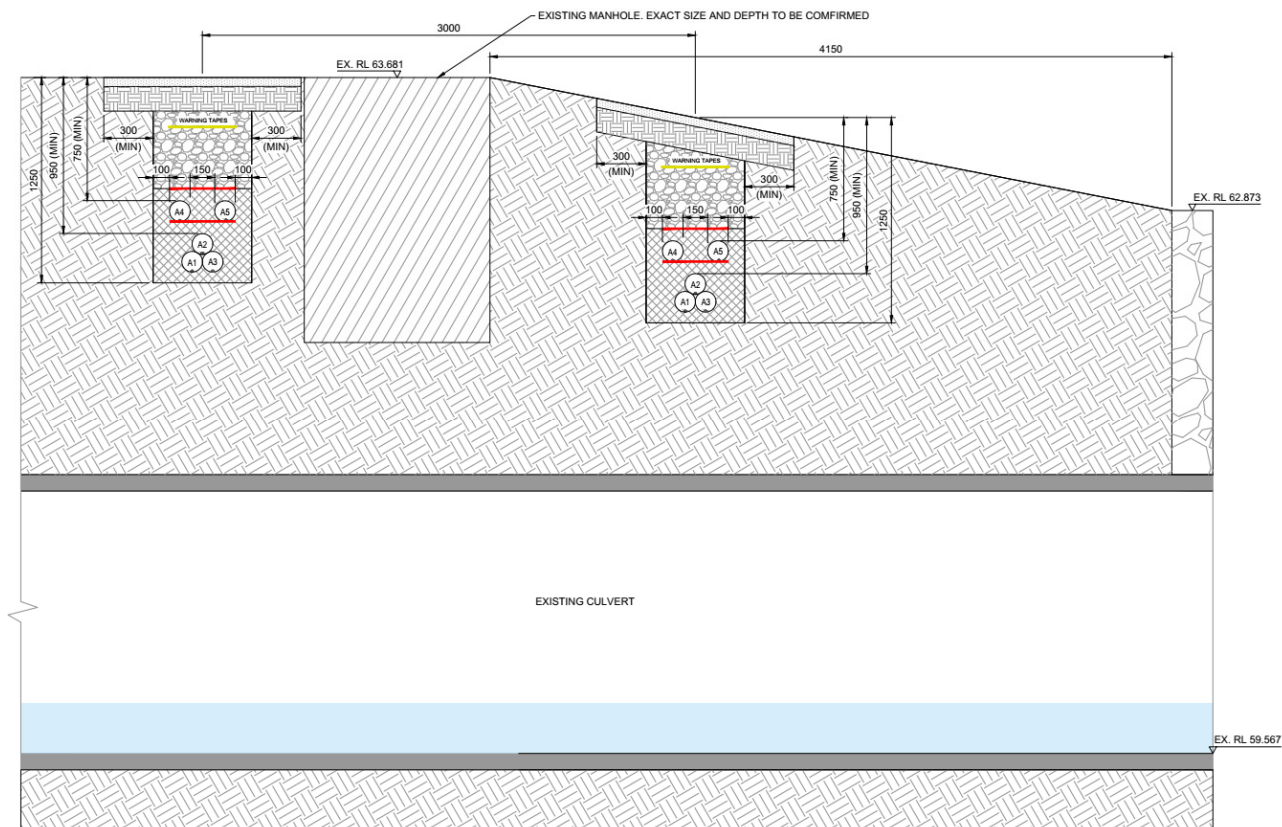


Typical cross-section of HV transmission line trenches from the Grange Castle - Kilmahud Circuits to the permitted Coolderrig substation within the Edgeconnex campus (Source: Drawing no. 20_167-CSE-GEN-ZZ-DR-C-2130, CSEA Consulting Engineers)

The entire length of the underground transmission lines will be undertaken by excavator and hand digging, where required, in accordance with safe work procedures and HSA Code of Practice for Avoiding Danger from Underground Services. Trenches will be excavated with stable sloping, benching where required and a suitable access and egress point. A suitable pump will be available on site and installed if groundwater is encountered to ensure trench stability and worker safety. Particular attention will be provided to the outlined requirements while working on the existing stream culvert crossing as well as in close proximity to the existing stream.

The ducting, bedding, surrounding fill material, warning marker boards and tape will be installed as per design in accordance with ESB specification while maintain safe clearance from existing utilities. Chambers and sandpits to be installed as per design in accordance with ESB specifications. Trenches will be backfilled with suitable material and surface finishes will be returned to original state.

The route of the transmission lines pass over the culverted Griffeen River within two trenches. This may require additional exploratory works to be carried out to assess existing utilities and/or culverted structure. There may be a requirement to excavate and hand dig below existing utilities at certain points to the required depth along the lines. This will involve reinstating backfill, and surrounding material to specified requirements to ensure underside of utilities are fully supported for load bearing purposes on completion.



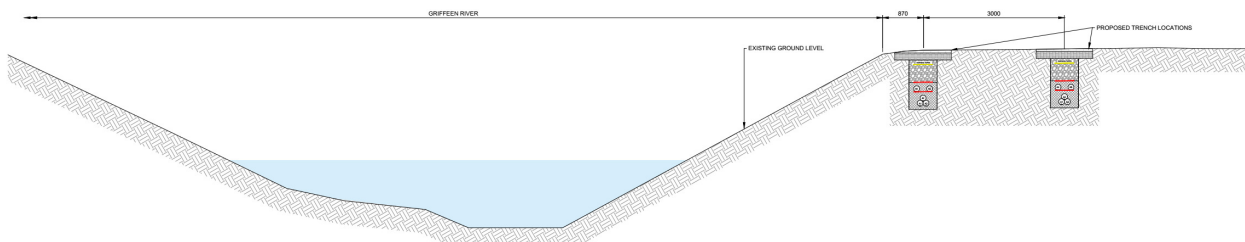
Cross-section of HV transmission lines trench crossing above the culverted Griffeen River (Source: Drawing no. 20_167-CSE-GEN-ZZ-DR-C-2130, CSEA Consulting Engineers)

The transmission lines pass along and parallel to the Griffeen River for c. 200m along its route and will require excavation along this part of the route. This creates the potential for sediment and/or nutrient run-off, especially if soil is stored in an unconsolidated state for a period of time. Suspended solids or nutrients resulting from the decomposition of organic material could potentially enter the adjacent Griffeen River and other drainage features. It is considered unlikely that this would happen to a significant degree given the presence of dense riparian vegetation along the existing watercourse.

The methodology for the construction of this length of the route will include a range of other mitigation measures designed to further reduce impact on the river that includes that excavation and infilling will be carried out in small progressive stages. Any topsoil that is of use for landscaping will be stored on the site. Where this is required during the construction phase, it will be stored suitably far away from the Griffeen River and covered to avoid excessive sediment run-off or wind blow.

Whilst no significant run off of silt laden run off is anticipated, given the proposed construction methodology, the site will be regularly monitored by construction staff for signs of run-off such as silt in surrounding vegetation and measures will be put in place to prevent this where necessary. This may include the erection of a silt fence. A silt fence may be constructed by attaching a sheet of geotextile membrane to a stock fence and burying the bottom of it into the ground, thus allowing water to pass through but not the heavier fraction of the sediment.

Excavations will be carried out using a suitably sized excavator and always from the northern bank of the River. Any excavated soil that is not re-used will be disposed of to a Local Authority approved waste disposal facility. In all circumstances, excavation depths and volumes will be minimised and excavated material will be re-used where possible.



Typical cross-section of transmission lines to the north of the Griffeen River (Source: Drawing no. 20_167-CSE-GEN-ZZ-DR-C-2130, CSEA Consulting Engineers)

Joint bays and pulling pits

The Proposed Development will link in to the Grange Castle – Kilmahud Circuits via the construction of two joint bays with associated communication chambers. The jointing bays will be c. 6m x 2.5m in plan and c. 2.5m to the underside of the base. These are located at the far eastern end of the Proposed Development site.

It is proposed to construct two no. push-pull chambers to the west of the crossing of the Griffeen River. The push-pull chambers will be c. 6m x 2.5m in plan and c. 2.5m to the underside of the base. These are required for the purpose of laying cables within the ducting given the length of the route.

Permitted and under construction 110kV Substation

The Coolderrig 110kV GIS substation is located in the north-east part of the overall Edgeconnex campus. The substation received a Final Grant of permission on the 27th November 2018. The permission was subject to 25 conditions. The permitted substation includes a two storey GIS Substation building (with a gross floor area of 556sqm) (known as the Coolderrig Substation), associated underground services; 2 no. transformers and single storey MV switch room (180sqm) within a 2.6m high fenced compound. The substation is due to be completed in the summer of 2021.

6. NATIONAL AND REGIONAL POLICY CONTEXT

Government Statement on The Role of Data Centres in Ireland's Enterprise Strategy

The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy was published by the Department of Business, Enterprise and Innovation in June 2018. The Statement notes the role which data centres play in Ireland's ambition to be a digital economy hot-spot in Europe.

The Statement includes a section dealing with electricity infrastructure (page 8 onward refers). The Statement includes the following statement in relation to the electricity infrastructure requirements of planned and projected data centre development:

“Currently, a large portion of existing and planned data centres that are due to connect to the electricity system are expected to be in the Dublin area. Based on existing data centres, committed expansion and expected growth, total demand could treble within the next ten years. A consistent and supportive whole of government approach will be brought to the realisation of the transmission and distribution assets required to support the level of data centre ambition that we adopt.”

The current Strategic Infrastructure Development proposal constitutes the provision of transmission infrastructure required to provide electricity for development within the Edgeconnex campus, including all of their permitted data centres.

National Planning Framework

The National Planning Framework (NPF) was published in February 2018 setting out a vision for Ireland in land use and planning terms to 2040. The NPF replaced the National Spatial Strategy once it was adopted as the long term land use and planning vision for Ireland.

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. The following objective, relating to Information and Communications Technology (ICT) infrastructure (including datacentres) 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.”

The Proposed Development comprises the provision of a permanent power supply for the Permitted Development, in a location which is well suited and serviced to accommodate such a use. The NPF also states under National Strategic Outcome 5, A Strong Economy Supported by Enterprise, Innovation and Skills:

“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 storage facilities. 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.”

The NPF is favourably disposed to the location of ICT infrastructure (data centres) in Ireland, and the Proposed Development, which facilitates such infrastructure, is therefore considered to be wholly in accordance with this key body of national planning policy.

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

The Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Regional Assembly (EMRA) includes Regional Policy Objective (RPO) 8.25 which states the following:

“Local Authorities shall:

- *Support and facilitate delivery of the National Broadband Plan.*
- *Facilitate enhanced international fibre communications links, including full interconnection between the fibre networks in Northern Ireland and the Republic of Ireland.*
- *Promote and facilitate the sustainable development of a high-quality ICT network throughout the Region in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas.*
- *Support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations.*
- *Promote Dublin as a demonstrator of 5G information and communication technology”*

The site is therefore considered to be an appropriate location for the development of ancillary development that supports data centres under this Strategy.

The RSES recognises the need to facilitate the provision of sufficient electricity to meet increasing demand in the region. In terms of Energy Infrastructure it is noted that 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.”

The proposed development constitutes a transmission project which is required to serve the electricity needs of permitted development in the Edgeconnex campus in accordance with the foregoing objective.

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.”

The current proposal seeks to provide for the development of the grid via a new transmission line which will supply inter alia high technology industry in the area, which is dependent on a reliable, high quality electricity supply.

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.”*

In response to the above it is considered that the proposed, comparatively short, 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 has been identified with due consideration for social, environmental and cultural impacts (as set out in detail within the EIA Report). The design selected has been predicated on the need to minimise environmental impact and includes mitigation measures as set out within the EIA Report 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 or built-up urban areas.

7. LOCAL PLANNING CONTEXT

South Dublin County Development Plan 2016-2022

The South Dublin County Development Plan is the statutory planning document that covers the entire South Dublin administrative area. The Plan was adopted in June 2016. The Proposed Development is to be

located within an area zoned EE (Enterprise and Employment) under the County Development Plan with the stated aim:

“To provide for enterprise and employment related uses.”

The Proposed Development is required to provide permanent power for the permitted data centres as permitted and built under SDCC Reg. Ref. SD16A/0214 and Reg. Ref. SD16A/0345. It will also allow the completion and operation of the data centre permitted under SDCC Reg. Ref. SD17A/0141 / SD17A/0392; and the construction and operation of the data centres permitted under SDCC Reg. Ref. SD18A/0298. The Proposed Development will also allow the decommissioning of the temporary Power Plant that was originally permitted under SDCC Reg. Ref. SD16A/0345 and was subsequently extended under SDCC Reg. Ref. SD19A/0342.

The County Development Plan (s. 10.2.9) supports the provision of transmission and energy infrastructure with the appropriate service providers such as ESB Networks and Eirgrid that facilitates the economic development and expansion of the County. Energy (E) Policy 11 of the County Development Plan specifically states that *“It is the policy of the Council to ensure that the provision of energy facilities is undertaken in association with the appropriate service providers and operators, including ESB Networks, Eirgrid and Gas Networks Ireland. The Council will facilitate the sustainable expansion of existing and future network requirements, in order to ensure satisfactory levels of supply and to minimise constraints for development”*. The service providers and operators have been fully consulted in formulating this SID application.

Significant precedent exists for the establishment of this use on other EE zoned lands in the area. EE zoned areas are established economic industrial areas running essentially in an arc northwards from City West to Grange Castle.

It is the policy of the Council to support sustainable enterprise and employment growth in South Dublin and in the Greater Dublin Area, whilst maintaining environmental quality. A number of objectives relate to EE zoned lands that include ET3 Objective 2 that states:

“To prioritise high tech manufacturing, research and development and associated uses in the established Business and Technology Cluster to the west of the County (Grange Castle and Citywest areas) to maximise the value of higher order infrastructure and services that are required to support large scale strategic investment.”

Policy ET3 Objective 5 requires that *“all business parks and industrial areas are designed to the highest architectural and landscaping standards and that natural site features, such as watercourses, trees and hedgerows are retained and enhanced as an integral part of the scheme”*. The Edgeconnex campus retains and enhances natural site features by the use of the highest architectural and landscaping design standards.

The nature of the permitted development on the Edgeconnex campus was informed by a site analysis of environmental issues and individual environmental reports were prepared and submitted with the application for development under SDCC Reg. Ref. SD16A/0214; SD16A/0345; SD17A/0141 / SD17A/0392 and SD18A/0298.

This has included meeting noise and air quality objectives. The enhancement and creation of new biodiversity corridors to fully integrate the Permitted and Proposed Development into the surrounding environment to ensure that direct and cumulative effects on biodiversity are addressed in the overall design. Suitable attenuation and sustainable drainage systems have also informed the design of the permitted campus development. This mitigation of design of the permitted development also increases native tree planting within the Edgeconnex campus from its current position. The permitted development within the Edgeconnex campus incorporates SUDS fully in accordance with policies of the Plan. None of these will be impacted by the nature of the Proposed Development.

In conclusion it is considered that the Proposed Development is in accordance with the policies and objectives of local, regional and national land use planning policy.

8. ENVIRONMENTAL IMPACT ASSESSMENT REPORT

An Environmental Impact Assessment Report has been prepared / coordinated by Marston Planning Consultancy Ltd. and is submitted along with this application.

9. APPROPRIATE ASSESSMENT

An Appropriate Assessment Screening Report has been prepared by Scott Cawley Ltd. and is submitted along with this application, and is included as a stand-alone document that accompanies the application.

10. FLOOD RISK ASSESSMENT

A Stage 1 Flood Risk Assessment has been undertaken for the site and is submitted along with this application, and is included as a stand-alone document that accompanies the application.

11. CONCLUSION


The Proposed Development proposal will include the provision of two no. underground 110kV transmission lines that will connect the permitted and under construction Coolderrig 110kV GIS substation with the Grange Castle – Kilmahud Circuit. This proposal, as described within this report, is designed to support existing and future power demand within the Edgeconnex campus from the existing data centres; and those that have been granted permission and remain unbuilt. The proposed development is in a location which is well-suited and serviced to accommodate such a use within the Grange Castle Business Park, Dublin 22.

The proposal is in accordance with the policies and objectives of national and regional planning policy, and the South Dublin County Development Plan 2016-2022.

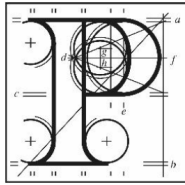
It has been demonstrated within this report, as well as within the accompanying drawings, documents, and Environmental Impact Assessment Report; that the Proposed Development provides a suitable use of the subject lands. The applicant and design team in preparing the application documentation have considered the issues raised within the pre-application consultations undertaken with An Bord Pleanála and their determination issued prior to the lodgement of this application.

If you require any further information, or clarification on the above, please do not hesitate to contact us. We trust that everything is in order and look forward to a favourable decision in due course.

Yours faithfully,



Anthony Marston (MIPI, MRTPI)
Marston Planning Consultancy

APPENDIX 1 EXTRACT OF BOARD ORDER CONFIRMING THAT THE PROPOSED DEVELOPMENT CONSTITUTES STRATEGIC INFRASTRUCTURE DEVELOPMENT

An
Bord
Pleanála

Board Direction
BD-007485-21
ABP-308655-20

At a meeting held on 04/02/2021, the Board considered the report of the Inspector and the documents and submissions on file generally.

Having regard to the provisions of the Planning and Development Act 2000, as amended, and the nature of the proposed development consisting of 2 no. grid connections from the permitted 110kV GIS substation and new grid connection works to connect to the Grange Castle 110kV substations at Grange Castle Business Park, Lucan, Dublin 22, as set out in the plans and particulars received by An Bord Pleanála on the 13th day of November 2020 and the 16th day of January 2021, it is considered that the proposed development falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and is therefore strategic infrastructure within the meaning of the Act. Accordingly, a planning application should be made directly to the Board.

Board Member:

Date: 04/02/2021

Dave Walsh