

MARSTON

PLANNING CONSULTANCY

Senior Administrative Officer,
Planning Department,
South Dublin County Council,
County Hall,
Town Centre,
Tallaght,
Dublin 24

Our Ref: 16008

20th February 2021

Re : Planning and Development Act 2000-2018 and the statutory regulations (as amended). Application by EdgeConneX Ireland Limited for development at this site within the townland of Ballymakaily to the west of the R120 (Newcastle Road), Lucan, Co. Dublin. The development will consist of the construction of two no. single storey data centres with associated office and service areas; and three no. two storey gas powered generation plant buildings with an overall gross floor area of 24,624sqm

Dear Sir / Madam,

We, Marston Planning Consultancy, 23 Grange Park, Foxrock, Dublin 18 are instructed by EdgeConneX Ireland Limited to submit this supporting planning letter in respect of this planning application for the development as described above on this site of 22.1ha. within lands to the west of the R120 and within the townland of Ballymakaily at Newcastle Road, Lucan, Co. Dublin.

The site is bounded by the Grand Canal, and an access lane and planting, to the north. A residential dwelling and both the original and new bridge over the Grand Canal lie to the north-eastern corner and outside the site. The realigned R120 bounds the site to the east with a number of residential properties bounding the road to its east. The data centre campus of the applicant granted and implemented that allows for future expansion under Ref. SD16A/0214, SD16A/0345 and SD17A/0141/SD17A/0392 as well as SD18A/0298 is located to the rear of these residential properties to the east of the R120. The site is bounded by further agricultural land zoned for development to the south and west. A traveller site is located some 180m to the south-west of the site.

The description of the proposed development as set out within the public notices is as follows:

The development will consist 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 that will comprise of the following:

- Demolition of abandoned single storey dwelling, remaining agricultural shed and derelict former farm building;
- Construction of 2 no. single storey data centres (12,797sqm), both with associated plant at roof level; with 24 no. standby diesel generators with associated flues (each 25m high) that will be attached to a single storey goods receiving area / store and single storey office area (2,404sqm) located to the west of the data centres as well as associated water tower and sprinkler tank and other services;
- amendments to the internal access road and omission of access to loading bay permitted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 that include the relocation of permitted, and new, internal security gates; and new internal access roads to serve the proposed development that will provide access to 39 no. new car parking spaces (including 4 no. electric and 2 no. disabled spaces) and sheltered bicycle parking to serve the new data centres;
- The development will also include the phased development of 3 no. two storey gas powered generation plants (9,286sqm) within three individual buildings and ancillary development to provide power to facilitate the development of the overall site to be located within the south-west part of the overall site. Gas Plant 1 (3,045sqm) will contain 20 no. generator units (18+2) with associated flues (each 25m high) will facilitate, once operational the decommissioning of the temporary Gas Powered Generation Plant within its open compound as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. Gas

Plant 2 (3,045sqm) will contain 20 no. generator units (18+2) with associated flues (each 25m high); and Gas Plant 3 (3,196sqm) will contain 21 no. generator units (19+2) with associated flues (each 25m high). These Plants will be built to provide power to each data centre, if and, when required. The Gas Plants will be required as back-up power generation once the permanent power connection via the permitted substation is achieved;

- New attenuation pond to the north of the site;
- Green walls are proposed to the southern elevation of each Power plant, as well as to the northern elevation of the generator compound of the data centres, and enclosing the water tower/pump room compound; and a new hedgerow is proposed linking the east and west of the site; and
- Proposed Above Ground Gas Installation compound to contain single storey kiosk (93sqm) and boiler room (44sqm).

The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage. The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. The site will remain enclosed by landscaping to all boundaries. The development will be accessed off the R120 via the permitted access granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948.

The development will be accessed from the east via the R120 (Newcastle Road) as permitted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. An Environmental Impact Assessment Report (EIAR) has been submitted with this application.

The planning rationale for the Proposed Development can be summarised as:

- The proposed development is to be located on a site that is zoned EE that has the objective '*To provide for Enterprise and Employment Related Uses*' under the South Dublin County Development Plan 2016-2022. The acceptability of data centres on EE zoned lands is well established, with several examples of such developments, within the Grange Castle and wider area most notably under the already granted permission for a data centre facility on the site under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948, with the north of the site being zoned as RU within which no development apart from landscaping and attenuation ponds are proposed;
- The architectural design and masterplan approach has positively responded to the overall development of the site and context ensuring it integrates well with the established pattern of development as well as providing positive biodiversity gains throughout the site that include the provision of green infrastructure in the form of green walls to the north of the data centre facility, and at the southern end of each Power Plant facility as well as a new hedgerow that will be planted that will transcend the site from east to west that will link the already permitted landscaping around the periphery of the site;
- The national and local planning policy context is supportive of the development of Information Communication Technology (ICT) infrastructure, including data centre development such as this, as they underpin Ireland's international position as a location for ICT;
- The proposed development has been prepared to accord with the relevant policies, objectives and standards of the South Dublin County Development Plan 2016-2022; and
- The proposed development will be compatible with its surroundings and the pattern of development in the vicinity, which comprises for the most part of similar large industrial type buildings and data centres.

Pre-application consultations have been undertaken with the Planning Authority prior to the lodgement of this application. A formal pre-application meeting was held online with the Council on the 9th February 2021 that included representatives of the Planning, and Roads/Transportation, Parks, Sanitary Services and Heritage Departments as well as the overall design and environmental team of the applicant. The relevant issues discussed during the course of the pre-application meeting are addressed within this report and the accompanying application documents. A notable request was to implement as much green infrastructure as part of the proposed development. The new hedgerow being now proposed that links the east and west of the site was a direct response to this request. A review of the biodiversity gain of providing this as opposed to additional green walls was considered to be significantly greater and it would significantly add to the biodiversity linkages through the site.

Other issues relating to vehicular access through and into the site were also considered. It was explained that this was a private site and its location so close to the permitted access road into Grange Castle West would provide no discernible land use benefit in unlocking adjacent undeveloped lands. The Roads Department also raised the potential of relocating the proposed access further south. This was also

discussed and it was acknowledged by the Council that a permitted access into the site already existed and that providing a second access, or alternative access that would have no benefits to the development of the site was not appropriate to consider any further. Car parking provision was also raised. We can confirm that the level of car parking is commensurate with the level of car parking that has been accepted as appropriate at other data centre development within and adjacent to Grange Castle, and reflective of the maximum number of workers during each shift at the facility.

In addition, the relevant environmental specialists have liaised directly and independently with statutory bodies (including the Water Services and Parks Departments of SDCC, Irish Water, Eirgrid, ESB, NPWS, and the Department of Defence etc.) by correspondence during the course of the preparation of the application and EIA Report. The EIA Portal notification is appended to this report.

The consultation with the Department of Defence in relation to the impact on Baldonnel / Casement Aerodrome raised three issues. The first of which was the request for the standard 28 day notice and co-ordination of the use of cranes on site. We would request that a similar condition be attached to any grant of permission.

Secondly, they queried the ability of the attenuation ponds to attract birds. The attenuation pond proposed, and the other one granted under the previous permission on the site are designed as attenuation ponds that will almost always remain dry and are designed to hold water only after rain and flood events. These areas are devoid of wetland planting. They are likely result in less overall open water and for shorter periods of time than water corridors that already exist and local natural flooding areas would produce. As such, the two water retention ponds (one of which is already permitted) will not result in any increase in hazardous water bird presence and do not require design modifications.

We respectfully submit that no further studies should be required given the location of the site outside of the inner zone relating to the airport. Any studies, if deemed required can be provided as compliance with a condition of permission.

The design approach is one that seeks to minimise the visual impact of the Proposed Development on the public realm and particularly from the canal and this led to mitigation in design and layout of the data centre facility and Power Plants and the overall master planning of the site. This took into account the already permitted landscape scheme along the northern perimeter of the site under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 that will create bunds with planting that rises to mounds of 4-6m in height. The permitted landscaping and attenuation will be in place prior to the commencement of construction of the Proposed Development.

This report, should be assessed in conjunction with the submitted architectural drawings; EIA Report as well as engineering and other details. These plans provide both detailed information in terms of the nature and extent of the Proposed Development as well as an assessment of the potential environmental impact of the scheme including mitigation measures that seek to ameliorate them.

The assessment of the application under the EIA Report has clearly determined that with appropriate mitigation the Proposed Development will not have a negative impact on its environment. The mitigation proposed is both reasonable and based on best planning and environmental practice that will facilitate the extension and other modifications and the integration of the development within the existing and expanding land uses, whilst respecting the amenity of existing residential uses and the ecology, amenity and environment of the area.

1. Compliance with Statutory Regulations

The plans and particulars which accompany this application have been screened by reference to the Planning and Development Regulations 2001 (as amended), as set out below.

- The Site Location Map has been prepared on an OS base to a scale of 1:2,500 for the application. An Ordnance Survey Datum local benchmark is indicated on the Map. The application site is outlined in red on this map. The OS map indicates the location of all six site notice locations.
- The Proposed Site Layout Plan is to a scale of 1:1,000, as agreed with Tracy McGibbon (Senior Executive Planner) prior to making of the planning application, and indicates the location of the application site in relation to the surrounding environment. Relevant features (such as buildings, trees

and roads) adjoining or in the vicinity of the application site are all shown. The drawing indicates the roof plan of the proposed data centres. A layout plan of the data centre facility will be provided at 1:200 for clarity purposes.

- An Existing Site Layout Plan is to a scale of 1:1,000, as agreed with the Planning Department prior to making of the planning application, indicates the existing site and the abandoned farm buildings to be demolished.
- As per article 22(2)(iv), the site notice positions (6 no.) are shown clearly on the Site Location Map and wider map. These positions are conspicuous and meet the requirements of article 19(1)(c) as they are located at the existing main vehicular and pedestrian entrance to the site from a public road, and at the site itself fully in accordance with Article 19 of the Regulations.
- All other statutory plans, elevations and sections, unless otherwise stated, are drawn to scales of not less than 1:200, in accordance with Article 23(1)(b) and (2) of the Regulations. This ensures that a detailed level of information is provided to the Planning Authority to enable their full assessment of the application. However, as the scale of the data centre development is such that at a scale of 1:200 the contiguous elevations do not fit onto an A0 plan we have submitted site sections, as agreed with Tracy McGibbon (Senior Executive Planner) prior to making of the planning application, at 1:750 on an A0 drawing. A more detailed cross-section is provided at a larger scale of the visual relationship between the data centre facility and the canal.
- The proposed floor and roof plans and elevations for the buildings are indicated on drawings submitted with the application. These drawings show the levels pertaining to the site. Floor levels are shown on all plans, sections and elevations of the proposed development. All levels are relative to Ordnance Survey Datum.
- The principal dimensions including height of the different elements of the proposed development and the site are indicated on the plans, elevations and sections as lodged with this application in accordance with article 23(1)(f).
- All drawings are clearly coloured and marked to distinguish the proposal, in accordance with article 23(1)(e).
- All OS mapping is appropriately identified in accordance with article 23(1)(g).
- The north point is indicated on all relevant maps and plans in accordance with article 23(1)(h).
- The newspaper notice appeared in the Irish Daily Mail, and which is recognised as an appropriate newspaper for a planning application in this area.

The legal interest of the applicant in making this application is fully set out in the application package. The applicant is in full ownership of the application site.

2. Site analysis

The proposed Data Centre facility and Power Plants are to be located on a site of 22.1ha. to the immediate west of the recently realigned R120 within the townland of Ballymakailly, Lucan, Dublin 22. The site in terms of its current use can be split into two areas with the majority of the land forming open grassland; and a former farmhouse and associated barns as well as similar buildings forming a small part of the northern part of the site to the immediate south of the Grand Canal.

The majority of the site that remains in grassland contains field boundaries in the form of hedgerow and small trees along its southern and western boundary that forms the townland boundary between Ballymakailly and Gollierstown to the west and Grange to the south. The site also contains five enclosed fields to the north-east and a larger L-shaped field that extends from the realigned road at the south-east to the canal to the north-west. An agricultural access road leads from the realigned R120 to the north-east of the overall site to the former agricultural buildings.

The eastern boundary of the site has been subject to a compulsory purchase order by South Dublin County Council to facilitate the Adamstown / Newcastle Road improvement scheme. This has resulted in a significant length of hedgerow being removed by the Council to facilitate the road works for some 430m of the eastern boundary with lengths of hedgerows remaining of 100m to the south-east, and 130m to the north-east along the realigned road. The former road remains in situ at the south-east corner of the site.

The site is bounded by the Grand Canal, and a lane along part of its south side and planting, to the north. A bungalow and both the original and new bridge over the Grand Canal lie to the north-eastern corner of the site. The realigned R120 bounds the site to the east with a number of residential properties bounding the road to its east. The data centre campus of the applicant granted and implemented that allows for future

expansion under Ref. SD16A/0214, SD16A/0345 and SD17A/0141/SD17A/0392 as well as SD18A/0298 is located to the rear of these residential properties to the east of the R120. The site is bounded by further agricultural land zoned for development to the south and west. A traveller site is located some 180m to the south-west of the site.



Aerial view of application site (refer to architectural drawings of Existing Site Plan and all buildings to be demolished that accompany the application for greater detail)

A large electricity pylon is situated in the northern portion of the site to the immediate south of the derelict farm buildings and in the north-west corner of the site. The power cables run across the site on a west-north-west to east-south-east axis across the site. The eastern part of the site has been subject to a compulsory purchase order by South Dublin County Council to facilitate the R120 improvement scheme, which is nearing completion. This resulted in a temporary land take of some lands that has reverted back into the ownership and control of the applicant following completion of the road scheme, and therefore is usable and forms part of the permitted mitigation landscape master plan for the overall development of the site.

The lands have been subject to now completed archaeological investigation work under licence from the National Monuments Service, Department of Culture, Heritage and the Gaeltacht on behalf of South Dublin County Council.

The site is relatively flat though there is a slope towards the north-east corner. The site is currently accessed only via agricultural access points from the east off the R120 and from the north off the access road to the abandoned agricultural buildings.

The site is located between the N4 and N7 national primary roads and is served by an improving local road network including the regional roads R120 (which has been recently upgraded including a new bridge over the Grand Canal), R134 and R136 (The Grange Castle Road) and the road network through the Grange Castle Business Park.

3. Planning history

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

Permission was granted on the 5th October 2020 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, An EIAR was submitted with the application for the development that had an overall gross floor area of 17,685sqm. The development 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.

The decision of the Board was subject to 19 conditions. Condition no. 16 relating to noise outlined that operational noise shall not exceed 45dB(A) Leq 1 hour between 2000 and 0800, and 55dB(A) Leq 1 hour at all other times. The condition in full stated:

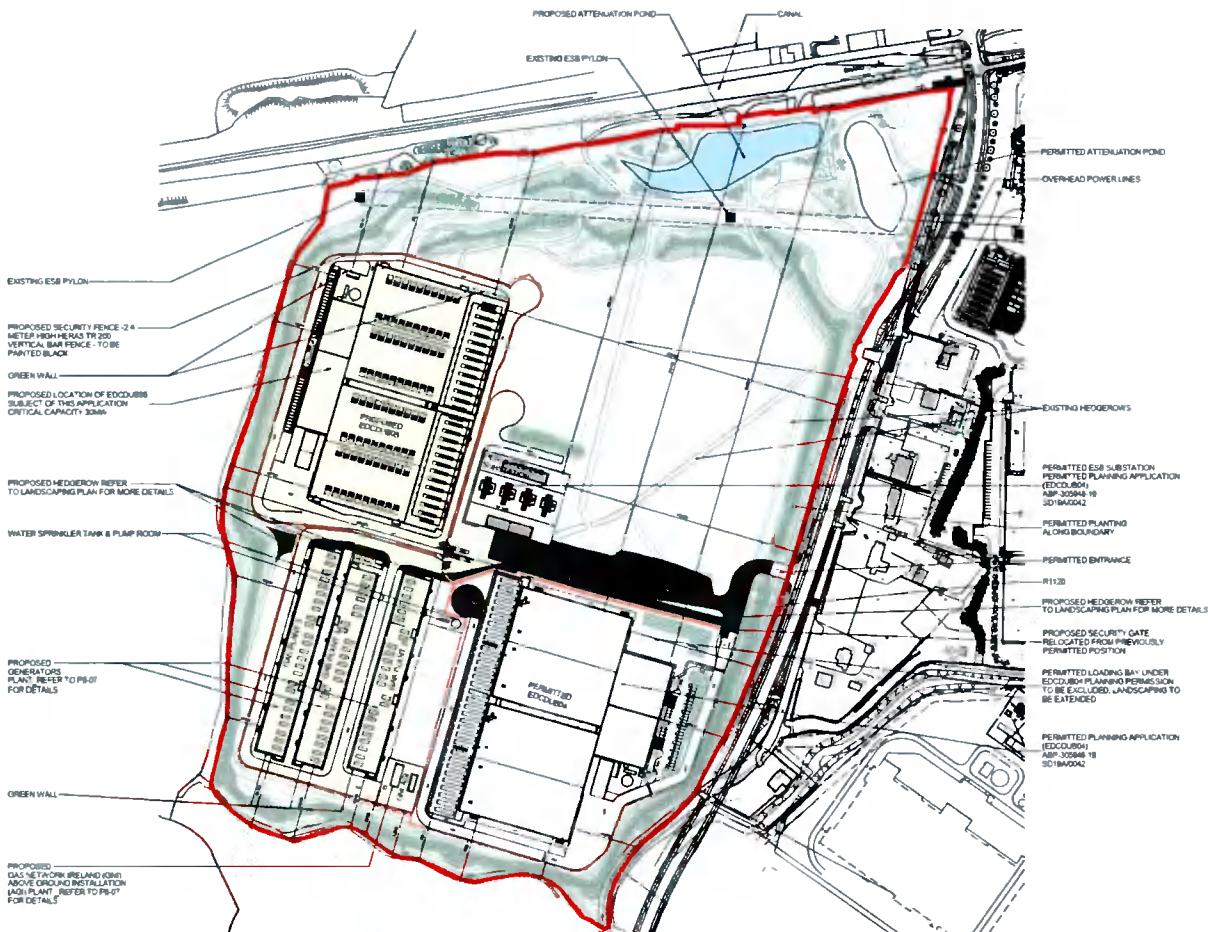
“The operational noise level shall not exceed 55 dB(A) Leq 1 hour (corrected for any tonal or impulsive component) at the nearest noise sensitive locations, including dwellings, between 0800 and 2000 hours, Monday to Friday inclusive, and shall not exceed 45 dB(A) Leq 1 hour at any other time. All sound measurement shall be carried out in accordance with ISO 1996-1:2016 “Acoustics - Description, measurement and assessment of environmental noise - Part 1: Basic quantities and assessment procedures”. Procedures for the purpose of determining compliance with this limit shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.”

This permission has not commenced on site.

4. Description of the Proposed Development

The Proposed Development is to develop 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 24,487sqm. The layout below presents a site layout plan of the Proposed Development in the context of the permitted development.

The Proposed Development with a gross floor area of 24,624sqm (as described and defined below) is to seek permission for a period of five years for a development that will consist of the following various works, as follows:



Proposed site layout plan

The development will consist 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 that will comprise of the following:

- Demolition of abandoned single storey dwelling, remaining agricultural shed and derelict former farm building;
- Construction of 2 no. single storey data centres (12,797sqm), both with associated plant at roof level; with 24 no. standby diesel generators with associated flues (each 25m high) that will be attached to a single storey goods receiving area / store and single storey office area (2,404sqm) located to the west of the data centres as well as associated water tower and sprinkler tank and other services;
- amendments to the internal access road and omission of access to loading bay permitted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 that include the relocation of permitted, and new, internal security gates; and new internal access roads to serve the Proposed Development that will provide access to 39 no. new car parking spaces (including 4 no. electric and 2 no. disabled spaces) and sheltered bicycle parking to serve the new data centres;
- The development will also include the phased development of 3 no. two storey gas powered generation plants (9,286sqm) within three individual buildings and ancillary development to provide power to facilitate the development of the overall site to be located within the south-west part of the overall site. Gas Plant 1 (3,045sqm) will contain 20 no. generator units (18+2) with associated flues (each 25m high) will facilitate, once operational the decommissioning of the temporary Gas Powered Generation Plant within its open compound as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. Gas Plant 2 (3,045sqm) will contain 20 no. generator units (18+2) with associated flues (each 25m high); and Gas Plant 3 (3,196sqm) will contain 21 no. generator units (19+2) with associated flues (each 25m high). These Plants will be built to provide power to each data centre, if and, when required. The Gas Plants will be required as back-up power generation once the permanent power connection via the permitted substation is achieved;
- New attenuation pond to the north of the site;
- Green walls are proposed to the southern elevation of each Power plant, as well as to the northern elevation of the generator compound of the data centres, and enclosing the water tower/pump room compound; and a new hedgerow is proposed linking the east and west of the site; and
- Proposed Above Ground Gas Installation compound to contain single storey kiosk (93sqm) and boiler room (44sqm).

The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage. The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. The site will remain enclosed by landscaping to all boundaries. The development will be accessed off the R120 via the permitted access granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948.

Phasing of Proposed Development

The construction of the Proposed Development will be phased as part of the development of the masterplan. As outlined the first data centre facility received a full grant of permission as did the temporary gas powered Aggreko Plant in October 2020. The Aggreko plant only has capacity to provide power to operate a small portion of the data centre facility that was granted permission under this recent decision.

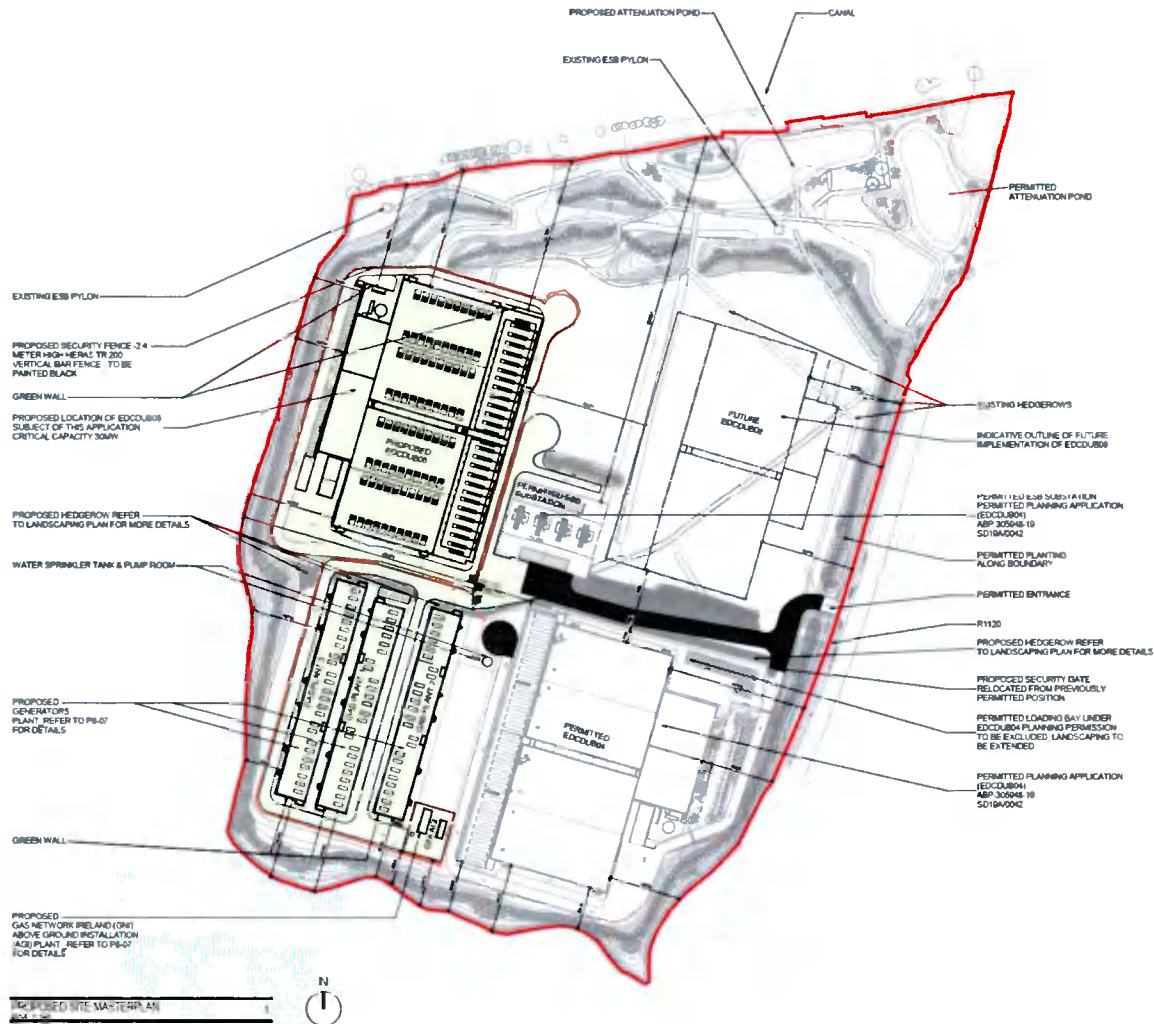
Phase 1 of the Proposed Development will include the commencement of construction of development of the proposed data centres and the construction of the new Gas Plant 1, and the decommissioning of the temporary Aggreko Plant granted for a period of two years from the An Bord Pleanála decision in October 2020. These two plants will not operate at the same time.

It is the intention that Gas Plant 1 will provide power to the permitted data centre that is located to the south-east of the overall site that was granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948. Construction of the proposed data centre under this application is envisaged to take a period of c. 18 months between Q4 2021 and Q2 2023. Construction of Gas Plant 1 is envisaged to take a period of c. 6 months between Q4 2021 and Q2 2022.

Phase 2 of the Proposed Development will include for the construction of the new Gas Plant 2 over a period of c. 6 months between Q3 2022 and Q1 2023. Phase 3 of the Proposed Development, if required, will include for the construction of the new Gas Plant 3 over a period of c. 6 months between Q4 2024 and Q2

2025. Given the unknown nature of the connection to the National Grid there is the potential that Power Plant 3 will not be required to be built. Given this potential, we request that the Planning Authority attach a suitable condition that enables Plant 3 not to be built, if it were required, without requiring an amendment of the permission.

The timing of all development will be subject to commercial demand and it has been assumed for the purposes of the application that it will extend to a c. 3.5 year period. The masterplan for the overall site is shown below.



Proposed master plan for the overall development site

A potential future phase of development on the site will be formed by a future planning application that will be accompanied by an EIA Report that will cumulatively assess the impact of all development on the site.

There is potential for both data centre developments (as permitted and now proposed) to be constructed over the same, or at least partly the same, time period. The cumulative impact of this on the construction phase has been assessed under this application.

It is proposed in the future to make a separate application for an 110kV connection from the permitted substation granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 to a point to be determined by Eirgrid. This will form a Pre-Application Consultation to An Bord Pleanála for them to determine whether it would amount to Strategic Infrastructure Development (SID). The entire landscape master plan for the site is proposed to be in place within the first two years following the commencement of construction of the already Permitted Development.

Need for the Power Plants

The Proposed Development includes the construction of 3 no. power plants that will be constructed in a phased basis to provide power, in the short-term, to the permitted development as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948, the Proposed Development and a potential future development.

The permanent power supply to the overall development of the entire site will be provided via the permitted two storey 110kV GIS Substation with associated transformer compound that is located centrally within the Proposed Development site and to the east of the proposed data centre. This will be connected via an 110kV transmission line from a suitable connection / substation that is yet to be determined by Eirgrid. The application for the provision of the transmission lines, which do not form part of this application, may be determined as Strategic Infrastructure Development (SID) through the pre-application consultations with the Board. It is planned to construct the permitted GIS Substation during the later part of the construction phase of the Proposed Development. It is proposed to commence in Q2, 2022 and be completed in Q3, 2024. The GIS Substation and transmission line will be designed to support power demand for the full development of the Proposed Development of the site.

There is a requirement for the Power Plants to provide both a short-term and back-up power solution to the Proposed and Permitted Development. This is due to the Flexible Demand conditional Eirgrid offer that is in place for the site. This requires a back-up solution to the National Grid above that of the temporary diesel generators, once the Proposed Development is connected to the National Grid. This is due to the constrained nature of the National Grid within the Greater Dublin area. Flexible Demand is defined by Eirgrid as:

“Flexible demand is electrical load for a data centre that must be reduced on instruction from EirGrid via the National Control Centre (NCC). Where capacity availability in a particular area is constrained, EirGrid will reserve the right to apply flexible demand arrangements and this will be reflected as a requirement for connection offers for new data centres in that area. EirGrid identify constrained areas as areas where there is a risk or potential risk that the level of demand may be greater or has the potential to become greater than the level of supply currently available or that will be available in the coming years. Such risks are caused by the unavailability of electricity supply in a particular area to meet the demand requirements in the same area. At present, EirGrid has identified the greater Dublin region as constrained. Flexible demand is electrical load for a data centre that must be reduced on instruction from EirGrid via the National Control Centre (NCC). Where capacity availability in a particular area is constrained, EirGrid will reserve the right to apply flexible demand arrangements and this will be reflected as a requirement for connection offers for new data centres in that area. EirGrid identify constrained areas as areas where there is a risk or potential risk that the level of demand may be greater or has the potential to become greater than the level of supply currently available or that will be available in the coming years. Such risks are caused by the unavailability of electricity supply in a particular area to meet the demand requirements in the same area. At present, EirGrid has identified the greater Dublin region as constrained.”

It should be noted that at all times two of the gas generators within each Power Plant will be idle and will act as back up to the other generators within each Power Plant. This generates an 18 + 2 arrangement within Power Plants 1 and 2; and a 19 + 2 arrangement within Power Plant 3.

Generators and diesel storage

In the event of a loss of power supply i.e. temporary grid blackout, diesel powered back-up generators will be provided to maintain power supply. These generators are designed to automatically activate and provide power to the data centres pending restoration of mains power. (An uninterruptible power source is also provided for the short-term transition from mains power to diesel generators).

The data centres will be served by a total of 24 no. back-up diesel generators. Each generator will also include a diesel belly tank with a single refuelling area to serve the proposed emergency generators. It is anticipated, based on the Operator's experience, that back-up generators will rarely be used. They will be tested periodically to maintain operational readiness. The assessment of the impact of these emissions is presented in Chapter 10 - Air Quality and Climate of the EIA Report. The Power Plant buildings will also include 2 no. diesel generators each. A diesel oil tank of 6m³ will be required for each generator (i.e., 6 no. tanks of 6m³ will be required). All tanks will be bunded.

Data Centre Facility Operation

Once operational, each data centre facility will “go live” and serve data customers on an ongoing basis. The server systems and the supporting infrastructure will be monitored by site staff and faults identified and remedied as required. Staff are primarily required onsite for security, ongoing monitoring and maintenance of plant and equipment.

Staffing and parking

Once operational, c. 30 full time employees will be present on site daily in the Data Centre facilities. Security staff (6 no. total) will be required at all times as well as service staff from outside the data centre facility particularly in relation to the Power Plant creating employment of up to 40 people. During the night shift a reduced number of staff will be required with 10 in the data centre facilities with similar.

Accordingly, it is proposed to provide 39 car parking spaces on site. This assumes a vehicle occupancy level of c. 1 persons/vehicle (62 Spaces) and take account of an allowance for visiting/maintenance staff as well as enabling a smooth transition between shifts. Included within this shall be 4 no. spaces provided for disabled parking and 2 no. E-charging spaces (with cabling for a further 2 spaces).

The facility will operate on 3 no. 8 hour shift basis (8am to 4pm; 4pm-12am and 12am-8am). Working hours are expected to be 24 hours a day, 7 days a week. The total persons anticipated to travel to and from the site over a 24 hour period, and therefore employed directly on site, is therefore c. 100. Additional service staff and other deliveries etc. would be addition to this. Traffic relating to staff movements has been assessed as part of the Traffic and Transportation chapter of the EIA Report (Chapter 12).

Noise modelling

The basis for the noise modelling scenarios and parameters are set out in detail within Appendix 9 of the Appendix document that accompanies the EIA Report. The noise contours typically during operation of all three power plants, noise from the data centre and generator testing (worst case scenario) is indicated below.



Noise contour – typical operation (with generator testing)

Proprietary noise and vibration control measures will be employed in order to ensure that noise emissions from building services plant do not exceed the adopted criterion at the façade of any nearby noise sensitive locations. In addition, noise emissions should be broadband in nature and should not contain any tonal or impulsive elements. The resultant noise impact is not significant as is clearly reflected in the table below.

Review of predicted changes in existing noise levels – with gas generation buildings

Loc.	Scenario A1 – Typical Operation Daytime				EPA Glossary of Impacts
	Predicted dB LAeq,T	Average Background Level dB LA90,T	Cumulative Noise Level (dB(A))	Change in Noise Level (dB)	
NP01	39	45	46	+1	Imperceptible Impact
NP21	37	42	43.2	+1.2	Imperceptible Impact
NP23	39	42	43.8	+1.8	Imperceptible Impact
NP24	38	42	43.5	+1.5	Imperceptible Impact
Loc.	Scenario A1 – Typical Operation Night Time				EPA Glossary of Impacts
	Predicted dB LAeq,T	Average Background Level dB LA90,T	Cumulative Noise Level (dB(A))	Change in Noise Level (dB)	
NP01	39	42	43.8	+1.8	Imperceptible Impact
NP21	37	38	40.5	+2.5	Imperceptible Impact
NP23	39	38	41.5	+3.5	Slight Impact
NP24	38	38	41	+3	Slight Impact

5. National and Regional Planning context

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 three new data centres and associated ancillary development, in a location which is well suited and serviced to accommodate such a use. The NPF also 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 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 in Ireland, and the Proposed Development, which comprises of such ICT 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 Draft Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Regional Assembly (EMRA) includes Regional Policy Objective (RPO) 8.23 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 storage facilities 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 data centres under this Strategy.

6. 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 use is a permitted use under this zoning. 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 and Grange Castle. The northern part of the lands is zoned RU. No element of the proposed development is proposed within this zoning that will contain the landscape berms and the attenuation ponds.

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 proposal retains and enhances natural site features by the use of the highest architectural and landscaping design standards.

Policy ET3 Specific Local Objective 1 supports the conducting of a review of the zoning of lands south of the Grand Canal and west and north of the R120, with a view to preparing a long term plan for the expansion of the Grange Castle Economic and Enterprise Zone, to accommodate strategic investment in the future, while also seeking to provide public open space along the Canal, including a natural heritage area in the vicinity of the historic canal quarries at Gollierstown. This rezoning has formed Variation no. 1 of the County Development Plan and does not relate to these lands.

Section 11.7.6 of the Plan sets out that development proposals for new industrial and commercial developments and large extensions to existing premises, where the processes associated with the primary operation of the proposal generates significant waste heat must carry out an energy analysis of the proposal and identify the details of potential waste heat generated and suitability for waste heat recovery and utilisation on site and with adjoining sites. This is required to include heat recovery and re-use technology on site, and include heat distribution infrastructure above or below ground (include future proofing of the building fabric to facilitate future connection). This is detailed in the submitted Energy Statement and architectural drawings that accompany the planning application.

The nature of the overall design has been informed by a site analysis of environmental issues. This has included noise and air quality objectives. The enhancement and creation of new bio-diversity corridors to

fully integrate the scheme 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. This mitigation of design also increases native tree planting within the site from its current position. The design incorporates SUDS fully in accordance with policies of the Plan.

In conclusion it is considered that the proposal is in accordance with the policies and objectives of local land use planning policy as set out under the South Dublin County Development Plan 2016-2022.

7. Environmental Impact Assessment Report

The requirement for EIA for certain types and scales of development is set out in the EIA Directives (2011/92/EU and 2014/52/EU), European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (the bulk of which came into operation in September 2018), the European Communities (Environmental Impact Assessment) Regulations 1989-2006, Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001-2019. It should be noted that this EIA Report is prepared in accordance with the 2011 EIA Directive (2011/92/EU), as amended by the 2014 EIA Directive.

The EIA Directives list those projects for which an EIA is mandatory (Annex I) and those projects for which an EIA may be required (Annex II). With regard to Annex II projects, Member States can choose to apply thresholds or use case by case examination or a combination of both to assess where EIA is required. In Ireland, a combination of both has been applied.

The project proposed is not listed under Annex I EIA Directives but it is above the relevant threshold as set out in the Planning and Development Regulations 2001-2019 for Annex II projects. The threshold for "*industrial estate development projects, where the area would exceed 15 hectares*" as set out in Part 2 of Schedule 5 of the Regulations was considered to be most relevant threshold in the context of the Proposed Development in the subject location. The Proposed Development site area exceeds this threshold and therefore an EIA Report is required for the Proposed Development.

The main objective of an EIA, as set out in Article 3(1) of the 2014 EIA Directive, is to identify, describe and assess the direct and indirect significant impacts of a project on population and human health, biodiversity, land, soils, water, air & climate (including noise), material assets, cultural heritage and the landscape and the interaction between the aforementioned factors. The EIA Report reports on the findings of the EIA process and informs the Planning Authority, statutory consultees, other interested parties and the public in general about the likely effects of the project on the environment.

8. Appropriate Assessment

A screening report has been completed for the Proposed Development, as required under the Habitats and Birds Directive (92/43/EEC and 79/409/EEC) and is included as a stand-alone report undertaken by Scott Cawley, Consulting Ecologists. This document forms part of the application. The AA screening process has identified that the potential impacts associated with the Proposed Development do not have the potential to affect the receiving environment and, consequently, do not have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of any European sites. Therefore, the Proposed Development is not likely to have significant effects on any European sites.

As the Proposed Development itself will not have any effects on the QIs/SCIs or conservation objectives of any European sites and taking into account the policies and objectives of the statutory plans referred to above, it is concluded that there is no potential for any other plan or project to act in combination with it to result in significant effects on any European sites. In assessing the potential for the Proposed Development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

Following an examination, analysis and evaluation of the relevant information, including in particular, the nature of the project and its potential relationship with European sites and their conservation objectives, as well as considering other plans and projects, and applying the precautionary principle, it is the professional opinion of the authors of the report that there is no potential for likely significant effects on any European sites.

9. Flood Risk Assessment

A Stage 1 Flood Risk Assessment has been undertaken for the site and forms a stand-alone report that forms part of this application. The assessment concluded that the development is not at risk of flooding. The assessment indicates that the Proposed Development would not adversely impact on the flood risk for other neighbouring properties. Further detail is provided in Chapter 8 – Hydrology of the EIA Report and the accompanying Stage 1 Flood Risk Assessment undertaken by Pinnacle Consulting that forms a stand-alone document as part of the planning application. Given the inland location of the site, it is not at risk from sea level rise.

10. Conclusion

The nature of the proposal fully accords with the zoning, policies and objectives of the County Development Plan and best practice in terms of compliance with putting forward suitable mitigation measures within the design and construction process to more than adequately mitigate environmental impacts on biodiversity and archaeology, and as a result of noise and air quality impacts generated by the development. This is particularly pertinent given its location adjacent to the Grand Canal (albeit over 300m away in this instance), and the nearby residential properties.

The proposed development is in accordance with the policies and objectives of the National Planning Framework, Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly, 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 EIA Report that the proposed development provides a suitable and appropriate use for the subject lands. The design and master planning of the site has taken into account any issues and discussions raised within the pre-application meeting with South Dublin County Council prior to lodgment of this application. The design and layout of the proposed development also provides for an appropriate use of the subject site that is cognisant of existing and permitted surrounding land uses.

In conclusion, for all of the foregoing arguments, reason and considerations, we respectfully request South Dublin County Council to accept the contents of the application, and to assess the subject development on its own individual merits and to grant planning permission for this development on the basis that by its nature and extent, the proposal would accord with the proper planning and sustainable development of this area including the preservation and improvement of amenities thereof.

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 EIA Portal notification

A Chara,

An EIA Portal notification was received on 18/02/2021 in respect of this proposed application. The information provided has been uploaded to the EIA Portal on 19/02/2021 under EIA Portal ID number **2021033** and is available to view at

<http://housinggov.ie/maps.arcgis.com/apps/webappviewer/index.html?id=d7d5a3d48f104ecbb206e7e5f84b71f1>.

Portal ID: 2021033

Competent Authority: South Dublin County Council

Applicant Name: Edgeconnex Ireland Ltd.

Location: Townland of Ballymakailly to the west of the Newcastle Road (R120), Lucan, Co. Dublin.

Description: Two no. single storey data centres and 3 no. two storey gas Power Plants and ancillary elements with a total gross floor area of 24,624sqm

Linear Development: No

Date Uploaded to Portal: 19/02/2021

Kind regards,

Margaret Killeen
EIA Portal team