



An
Bord
Pleanála

Inspector's Report ABP-310507-21

Development	Provision of a substation and associated grid connection.
Location	Site at Tulla Road, Ennis, Co. Clare
Planning Authority	Clare County Council
Type of Application	Pre-application consultation
Prospective Applicant	Art Data Centres Limited
Date of Site Inspection	3 rd September 2021
Inspector	Donal Donnelly

1.0 Introduction

- 1.1. The Board received a request on 15th June 2021 from prospective applicant, Art Data Centres Limited to enter into a pre-application consultation under Section 182E of the Planning and Development Act, 2000, as amended in relation to a proposed 110kV substation and associated grid connection at Tooreen & Cahernalough, Tulla Road, Ennis Co. Clare. The proposed substation is to support the power demand of a proposed data centre campus on an overall site of 60 hectares.
- 1.2. A consultation meeting was subsequently held between An Bord Pleanála and the prospective applicant on 16th September 2021. The prospective applicant formally requested closure of the pre-application consultation process by written correspondence received by the Board on 1st October 2021.
- 1.3. The primary purpose of pre-application consultation meeting was to address the issue of whether or not the proposed development constitutes strategic infrastructure for the purposes of the 2000 Act, as amended by the Planning and Development (Strategic Infrastructure) Act, 2006. The pre-application consultation also considers matters relating to the proper planning and sustainable development of the area or the environment which may have a bearing on the Board's decision, and the procedures involved in making the application.
- 1.4. This Report provides an overview of the proposed project, a summary of the meeting and the advice provided by the Board, the legislative provisions, and a recommended list of Prescribed Bodies that should be forwarded copies of the application.

2.0 Site Location

- 2.1. The site of the proposed development located in the townlands of Cahernalough and Tooreen in mid Co. Clare approximately 4km north-east of Ennis town centre. The site is accessed off Tulla Road (R352) at a point approximately 700m to the east of Junction 13 of the M18 motorway. Ennis 110kV substation is situated immediately east of Junction 13 and is encircled by the motorway, Tulla Road and a slip road. There are five 110kV overhead lines that feed into Ennis substation. Two of these lines, the Ennis- Agannygal 110kV OHL and Ardnacrusha-Ennis 110kV OHL,

continue north-east and traverse the site of the proposed data centre development. The site is also traversed from north to south by a 750mm HP gas network pipe (85 bar).

- 2.2. The site of the proposed substation comprises agricultural fields with mature hedgerow. Access to the site is via a laneway off the R352. This laneway is a cul de sac that provides access to dwellings and farm buildings.

3.0 Proposed Development

- 3.1. The proposed development would comprise of the construction of a substation compound with an overall area of c. 6,400 sq.m. located to the east of the proposed data centre campus and containing the following:

1. Substation with 110kV switchyard (to be fully adopted by EirGrid) and step-down transformation for Art Data Centres which could be privately owned or adopted by EirGrid.
2. Substation entails switch gear, external utility buildings, auxiliary transformers, and LV distribution and secured by a 2.8m security wire perimeter fence.
3. Undergrounding of two existing 110kV overhead cables.

- 3.2. The proposed development includes the provision of two overhead line termination towers and cable sealing ends on the Ennis- Agannygal 110kV OHL and Ardnacrusha-Ennis 110kV OHL. These two lines will be undergrounded to a switchyard in the substation compound and then rerouted along the R352 to the existing Ennis substation.

- 3.3. It is not possible to extend the existing Ennis substation due to its location surrounded by roads. There is an option to directional drill ducting routes under the road. The final routing into Ennis substation will be determined by EirGrid.

4.0 Clare County Development Plan 2017-2123

- 4.1. Variation 1 of the Clare County Development Plan 2017-2023 was adopted by Clare County Council in March 2019 to identify in a plan-led manner the preferred locations for data centres in the county. The Variation also amended the zoning at the subject

lands from industrial use to enterprise use (ENT3) specifically for the purposes of accommodating a data centre campus.

5.0 Planning History

Clare County Council Reg. Ref: 21/757

5.1. Art Data Centres Ltd. submitted an application to Clare County Council on 16th July 2021 seeking a 10 year permission on a c. 60 hectare site consisting of the following:

- Demolition of an existing single storey with pitched roof farm dwelling house together with 8 No. farm outbuildings on the overall site.
- Construction of 6 no. 2-storey data centre buildings with 3-storey plant/office levels and associated ancillary development with combined gross floor area of 118,740 sqm. The 19m high data centre buildings will include the following:
 - Data halls and air handling units and offices and ancillary plant and support. Each of the six data centre buildings will include data halls, associated electrical and mechanical plant rooms, loading bays, maintenance and storage spaces, office administration areas, pump rooms, water storage tanks, and plant, as well as backup (standby) generators (11 no. per building) for emergency use only situated along one elevation of each building. The standby diesel generators will have associated 8m high flues. Each generator will also include local diesel storage tanks with a single refuelling area to serve the proposed emergency generators.
 - A gas powered energy centre and Above Ground Installation (AGI) 4,674 sqm in size. The energy centre will primarily comprise 18 no. lean-burn natural gas engines, 2 no. pump rooms, and fuel storage compound. Each generator will have its own flue of 25m height. The energy centre and buildings within the compound will be 12 m high, single storey with mezzanine level. The buildings will house ancillary office, welfare facilities and associated parking.
 - A two storey Vertical Farm Building. The vertical farm will be c. 2,430 sqm and 12m high. It will comprise c. service area of 1,444 sqm, handling area of 844 sq.m. and ancillary areas.

- 5.2. Further information was requested from the applicant on 8th September 2021 on issues of potential project splitting; drainage, water supply and flood risk; expansion of water main and culvert; biodiversity; residential and commercial amenity; movement and access; consideration of alternatives; major accidents; design, layout and visual amenity; and other items including extent of renewables available to the proposed data centre, and proposals for a batching plant.

6.0 Planning Precedent

An Bord Pleanála Ref: ABP-300793-18

- 6.1. The Board decided that an underground double circuit 110kV transmission line between the existing Belcamp 220kV and 110kV substation to the permitted Darndale 110kV substation to serve an Amazon data centre and surrounding area at Clonshaugh Business and Technology Park, Dublin 17 is Strategic Infrastructure Development.

An Bord Pleanála Ref: ABP-301188-18

- 6.2. The Board decided that a 220kV substation and underground cables connecting to a previously consented 220kV substation and loop-in system to serve the Facebook data centre at Clonee, Co. Meath is Strategic Infrastructure Development.

An Bord Pleanála Ref: ABP-303412-19

- 6.3. The Board decided that a 220 kV electricity substation, 2 no. 220 KV circuits forming a loop-in/loop out to the existing Maynooth-Woodland 220 kV Overhead Line and 3 no. 220 kV circuits connecting the proposed substation to electricity transformers is Strategic Infrastructure Development. This proposal was to serve the electricity demands of the Intel facility at Leixlip, Co. Kildare.

An Bord Pleanála Ref: ABP-305657-19

- 6.4. The Board decided that a substation and associated grid connection at Bracetown, Gunnocks, to the north of Clonee, Co. Meath to serve a data centre is Strategic Infrastructure Development.

An Bord Pleanála Ref: ABP-307074-20

- 6.5. The Board decided that the construction of a 110kV GIS substation and associated grid connection works to connect to the Castlebaggot substation on lands in the

Grange Castle Business Park South to serve a data centre development is Strategic Infrastructure Development.

An Bord Pleanála Ref: ABP-307360-20

- 6.6. The Board decided that the construction of a 110kV GIS substation, 4 no. transformer bays, associated compounds and site infrastructure on lands in the Grange Castle Business Park South to serve a data centre development is strategic infrastructure Development.

7.0 Prospective applicant's case

- 7.1. The prospective applicant's case is that the proposed development meets the relevant criteria and constitutes Strategic Infrastructure Development (SID) under Section 182A & 182B of the Planning and Development Act, 2000 (as amended).

- 7.2. The key elements of the prospective applicant's submission are summarised as follows:

- Proposed development is required to power an adjacent proposed data centre campus and the power needs of potential future development on the overall 60-hectare landholding.
- Proposed substation including transformers and on-site distribution will be contestable development. Break-in to existing 110kV OHL, dropdown connection masts, droppers and underground transmission lines connecting to the proposed switchyard will be non-contestable.
- Once energised, the proposed 110kV switchyard and dropdown connection masts, droppers and underground transmission lines connecting to the proposed substation and existing Ennis substation will form part of the ESBN infrastructure, which EirGrid will be responsible for operating.
- Board's Guidelines on Electricity Transmission SID provide that *"certain private sector proposed developments may constitute electricity transmission under section 182A where such proposals will ultimately form a node on or part of the transmission network. This might include for example substations and related connection infrastructure to the national grid associated with large commercial or industrial development."*

- As proposed development will be delivered on a contestable basis and the compound will have two parts (110kV switchyard to be adopted by EirGrid and step-down transformation), it is apparent that the proposal will form part of the transmission network upon completion.
- The proposal is for the provision of a 110kV GIS substation and dropdown connection to an existing 110kV overhead transmission line.
- Proposed development will ultimately be part of the connection infrastructure to the national grid and will have the purpose of electricity transmission as defined under Section 182A (9).

8.0 Pre-Application Consultations

8.1. A pre-application consultation meeting was held online on 16th September 2021. Full details of the meeting and matters raised are contained in the Board's Record. The prospective applicant gave an overview of the case that included details on site location and context; planning context; the proposed data storage facility (Reg. Ref: 21/757); and details of the proposed development including presentation of pre-application drawings. The following matters were discussed after the presentation:

- Prospective applicant confirmed that the proposed development would be a looped in connection rather than tail-fed. Noted that proposed development would utilise 6 bays of the 8 bay GIS substation, leaving two spare bays for future expansion/ development.
- Board's representatives stated their preliminary opinion that the proposed development would constitute SID but it is ultimately a decision for the Board.
- Prospective applicant confirmed that the same EIAR would be submitted for the proposed development as the data centre application.
- Prospective applicant agreed with EirGrid that a maximum of 83 megawatts could be taken from the grid substation – data centres would reach 200 megawatt and additional power will be supplemented by the gas energy centre with diesel back up. Connection agreed with Bord Gáis to existing gas pipeline traversing the site.
- Board's representatives advised the prospective applicant to consider the potential impact on residential amenity and the prospective applicant confirmed

that the data halls would be over 100m from the nearest property and extensive landscaping and visual assessments have been carried out.

- Board's representatives referred to the presence of badger and lesser horseshoe bat in the locality and prospective applicant confirmed that all ecological elements have been addressed and mitigation measures are included for all habitats on site.
- Prospective applicant confirmed that the Lower River Shannon SAC is the only European Site in respect of which the proposed development has the potential to have a significant effect. Board's representatives advised prospective applicant to prepare a thorough NIS in any application for the proposed development.
- Board's representatives advised the prospective applicant to be extremely clear in identifying elements of the project which fall under Section 34 and Section 182A to ensure there is no ambiguity.
- Board's representatives said that it would be a matter for the prospective applicant to decide if they wanted to time the applications to run concurrently with each other should the data centre application be appealed, and should the Board decide that the substation is a SID.
- Prospective applicant confirmed that waste heat from the data halls would be used to supply low grade heat to the vertical farm in order to grow high value crops such as herbs and lettuce.

9.0 **Legislative provisions**

9.1. Section 182A(1) of the Planning and Development Act, 2000 (as amended) requires that where a person (referred to as the 'undertaker') intends to carry out development comprising or for the purposes of electricity transmission, the undertaker shall prepare an application for approval of the development to the Board.

9.2. Section 182A(9) of the Act states that 'transmission', in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999 but, for the purposes of this section, the foregoing expression, in relation to electricity, shall also be construed as meaning the transport of electricity by means of –

- (a) a high voltage line where the voltage would be 110 kilovolts or more, or
- (b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not.

9.3. Section 2(1) of the Electricity Regulation Act, 1999 defines transmission as follows:

“the transport of electricity by means of a transmission system, that is to say a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, or to or from any interconnector or to final customers but shall not include any such lines which the Board may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board.”

9.4. Electric plant is defined as follows:

“any plant, apparatus or appliance used for, or for purposes connected with, the generation, transmission, distribution or supply of electricity, other than –

(a) an electric line,

(b) A meter used for ascertaining the quantity of electricity supplied to any premises, or

(c) an electrical appliance under the control of the consumer.

10.0 **Assessment**

10.1. **Strategic Infrastructure**

10.2. The proposed development comprises a new 110kV GIS substation and associated grid connection involving the provision of two overhead line (OHL) termination towers and cable sealing ends on the Ennis-Agannygal 110kV OHL and Ardnacrusha-Ennis 110kV OHL that both traverse the site, together with undergrounding of these lines to a switchyard in the substation compound and then rerouting along the R352 to the existing Ennis 110kV substation.

- 10.2.1. The purpose of the proposal is to support the power demand of a proposed data storage facility at the site and to serve the power needs for future development. Unlike substations for windfarm or solar farm developments which allow for electricity generated by these facilities to be fed into the national grid, the proposed development will effectively be taking from, and not adding to, network capacity. The prospective applicant has agreed with EirGrid that a maximum of 83 megawatts could be taken from the grid substation. The proposed data centres would reach 200 megawatt and this power demand will be supplemented on site by a gas energy centre with diesel back up.
- 10.2.2. Under Section 182A of the Planning and Development Act, 2000 (as amended), an undertaker shall apply to the Board for approval of a development comprising or for the purposes of energy transmission. Section 182A(9) states that *'transmission'* shall be construed in accordance with Section 2(1) of the Electricity Regulation Act, 1999 and shall also be construed as meaning *inter alia* the transport of electricity by means of a high voltage line where the voltage would be 110kV or more.
- 10.2.3. Section 2(1) of the Electricity Act defines the transmission system as wholly or mainly high voltage lines and electrical plant for conveying electricity. I consider that the proposed substation constitutes *'electrical plant'* as *"any plant, apparatus or appliance used for, or for purposes connected with, the generation, transmission, distribution or supply of electricity..."*.
- 10.2.4. There is no threshold under Section 182A (9) of the Planning and Development Act, 2000 (as amended) in respect of a substation. However, the proposal includes 110kV dropdown lines from the existing 110kV overhead transmission lines, and once energised, the proposed 110kV switchyard and dropdown connection masts, droppers and underground transmission lines connecting to the proposed substation and existing Ennis substation will form part of the ESN infrastructure, which EirGrid will be responsible for operating.
- 10.2.5. The proposed 110kV GIS substation and the provision of transmission lines between the proposed substation and the existing transmission infrastructure will essentially see power in the transmission lines being diverted into the substation and back out again, thereby forming a node on the transmission system. This, in my opinion, constitutes Strategic Infrastructure Development. It should be noted that the

applicant has stated that the proposed development is designed to support the power demands of the data storage facility, as well as the power needs of potential future development on the overall landholding.

10.2.6. The Board will note previous decisions on pre-application consultation requests in relation to electricity transmission infrastructure under Section 182E where it was determined that the provision of a 110kV substation and associated 110kV cabling acting as a node on the transmission system constitutes Strategic Infrastructure Development. Recently, the SID Board reviewed cases with respect to Section 182A (9), and the definition of transmission under Section 2(1) of the Electricity Regulation Act, 1999. The SID Board considered that new 110kV infrastructure comprising electric plant and high voltage lines for transmission must be considered SID notwithstanding whether or not these connections are looped-in or tail-fed.

10.3. **Planning and Environmental Considerations**

10.3.1. Variation 1 of the Clare County Development Plan, 2017-2023 was adopted on 11th March 2019 to give effect to the Government Policy Statement on the Development of Data Centres in Ireland by identifying in a plan led manner the preferred location of a data centre in County Clare. The Variation provides for the development of data centres and power generating infrastructure into the enterprise zoning definition.

10.3.2. The Variation also provided for the amendment of the zoning objective for the subject lands previously identified in the Ennis Settlement Plan as Industrial IND1 to Enterprise ENT3, and the extension the Enterprise ENT3 zoning objective to 45ha, onto lands previously identified as being in the open countryside. The following criteria for development proposals for this site are set out under the Variation and are relevant in terms of planning and environmental considerations:

- Traffic management plan,
- Sustainable building design, materials, construction, and operation,
- Hydrological assessment,
- Provision of buffer around lake and Landscape Management Plan,
- A CEMP including Flood Risk Assessment, Surface Water Management Plan and Pollution Prevention Plan,

- Air Quality Impact Assessment,
- Bat surveys,
- Bird surveys,
- Ecological Impact Assessment,
- Landscape Management and Biodiversity Plan,
- Invasive Species Survey and Management Plan,
- Otter use survey of the site,
- National monument buffer,
- Adequate wastewater treatment and disposal measures.

10.4. **Prescribed Bodies**

10.4.1. In view of the scale, nature and location of the proposed development, as described in this report, it is recommended that the prospective applicant should consult with the prescribed bodies listed in the attached Appendix in respect of any future application for approval.

11.0 **Conclusion**

11.1. I consider that the proposed development as described in the submissions and drawings constitutes strategic infrastructure coming within the scope of section 182A of the Planning and Development Act 2000, as amended, necessitating an application to be made directly to the Board.

12.0 Recommendation

12.1.1. I recommend that Art Data Centres Limited be informed that the proposed development consisting of a 110kV GIS substation and associated grid connection at a site at Tulla Road, Ennis, Co. Clare as set out in the plans and particular received by An Bord Pleanála on the 15th June 2021, falls within the scope of section 182A of the Planning and Development Act 2000, as amended, and that a planning application should be made directly to the Board.

Donal Donnelly

Senior Planning Inspector

9th December 2021

Appendix 1

The following is a schedule of prescribed bodies considered relevant in this instance for the purposes of Section 182A(4)(b) of the Act.

- Minister of Housing, Local Government and Heritage
- Minister for Environment, Climate and Communications
- Clare County Council
- Transport Infrastructure Ireland
- Irish Water
- An Chomhairle Ealaíon
- Fáilte Ireland
- An Taisce
- Heritage Council
- Commission of Regulation of Utilities, Water and Energy
- Health Service Executive
- Irish Aviation Authority
- Health & Safety Authority

Further notifications should also be made where deemed appropriate.