

Planning Application Report

For Strategic Infrastructure Development in respect of a GIS Substation

**on lands adjacent Huntstown Power Station,
Huntstown, North Road (R135), Finglas,
Dublin 11**

On behalf of

Huntstown Power Company Limited

September 2021



Planning & Development Consultants

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1. INTRODUCTION

We, Brock McClure Planning and Development Consultants, 63 York Road, Dún Laoghaire, Co. Dublin, are instructed by the Applicant, **Huntstown Power Company Ltd., Liberty Building 10th Floor, Blanchardstown Retail Park, Blanchardstown, Dublin 15**, to submit this application for strategic infrastructure development comprising a 2 storey 220 kV Gas Insulated Switchgear (GIS) substation on lands adjacent to Huntstown Power Station, Huntstown, North Road (R135), Finglas, Dublin 11.

A determination was made by An Bord Pleanála on the 4 February 2021 confirming that the proposed development is considered strategic infrastructure development. This application is made in accordance with Section 182A(1) of the Planning and Development Act, 2000 (as amended).

We wish to highlight from the outset, that our client is committed to working with the Planning Authority to deliver a proposal that is appropriate to the site and surrounding development.

This Application Report is intended to:

- Provide a detailed description of the proposal for the benefit of the Board and Fingal County Council;
- Specify the rationale behind the subject development; and
- Identify its compliance with relevant statutory documentation.

We now request that the Board review the content of the application package and consider the proposal on its merits.

1.1 Wider Development Area

The proposal subject of this planning application forms part of a wider development site, which is under consideration of Fingal County Council for two concurrent applications including the undergrounding of overhead electricity lines (Reg. Ref.: FW21A/0144) and the development of a data centre consisting of two data halls and ancillary structures (Reg. Ref.: FW21A/0151).

A full planning history is detailed in Section 5 of this report for clarity and context purposes.

The subject proposal will support the energy requirements of the permitted data centre and will form part of the transmission network for the wider area.

The proposed design and layout of the substation and underground cabling works have been the subject of detailed discussions with various stakeholders including EirGrid and ESB Networks.

Letters of consent have been obtained from all relevant landowners and accompany this application.

1.2 The Applicant

The Applicant, Huntstown Power Company Ltd has owned and operated two combined cycle gas turbine power plant on lands adjoining the subject site since their commissioning in 2002 and 2007.

The subject site is owned by the following landowners:

- Folio DN3291 - Roadstone Limited
- Folio DN202595F - ESB Networks



- Folio DN7730F - Cathy Carrigan, Jane Carrigan, Laura Carrigan, Marie Carrigan, Bernard Smyth, Anne Mooney.

All necessary consents were obtained from the relevant landowners and accompany this application.

Applicant Background

The applicant is a member of Energia Group, a modern and innovative energy company operating across the island of Ireland with its headquarters in Blanchardstown. The Group primarily operates through three complementary businesses: Customer Solutions, Flexible Generation and Renewables. The Group employs over 900 people and is one of only 40 companies in Ireland to have achieved the Responsible Business Mark from Business in the Community Ireland.

In 2019 Energia Group announced its Positive Energy investment programme, a €3bn programme focused on new investments in renewable energy, including onshore and offshore wind, solar, battery storage and green hydrogen. This will further increase the Group's contribution to the achievement of the energy transition on the island of Ireland.

As a leading energy provider and infrastructure investor Energia Group already delivers 21% of Ireland's wind power. The Energia Group supplies over 800,000 homes and businesses across the island of Ireland and is Ireland's greenest electricity supplier. The Energia Group also owns and operates two combined-cycle gas turbine power plants at its Huntstown Campus in North County Dublin that are capable of meeting 11% of peak energy demand in the all-Ireland electricity market. These units are critical to the security of supply in the greater Dublin area. The Group is currently commissioning the largest bioenergy plant in Ireland at the Huntstown campus. This facility uses anaerobic digestion to convert organic waste such as garden and food waste from the North Dublin/South Meath catchment area into methane rich biogas which will then be used to generate renewable electricity.

1.3 Design Team

The scheme now before the Planning Authority has evolved following an input from the following design team:

- ▶ Brock McClure Consultants (Town Planning Consultants)
- ▶ AECOM (Consulting Engineers)
- ▶ Henry J. Lyons (Architects)
- ▶ CSEA Civil and Structural Engineers (Consultant Engineers)
- ▶ Kevin Fitzpatrick Landscape Architecture (Landscape Architects)
- ▶ AWN Consulting (Environmental Consulting)
- ▶ CST Consulting Engineers (Traffic Consultants)
- ▶ Ethos Consulting Engineers (M&E Consultants)
- ▶ The Moore Group (Ecological Consultants)
- ▶ CRDS Ltd – (Archaeological Consultants)

Other stakeholders consulted as part of this application include EirGrid and ESB Networks.

The various inputs from the design team are referenced where relevant within this report. For clarity purposes, we confirm that the following reports are included herewith to enable the Planning Authority make a comprehensive assessment of the scheme:

- ▶ Planning Report (Brock McClure Planning Consultants)
- ▶ Planning Drawings (AECOM)
- ▶ Aviation Letter (ASAP)
- ▶ Drainage and Water Services Report (AECOM)



- Construction Environmental Management Plan (AECOM)
- Architectural Design Statement (AECOM)
- Engineering Drawings (AECOM/CSEA/CST)
- Civil & Structural Engineering Report (AECOM/CSEA)
- Construction Management Plan (AECOM)
- AA Screening Report (The Moore Group/AWN)
- Environmental Impact Assessment Report (AWN et al)
- Land Use Planning Report (AWN)
- Tree Survey (Rik Pannett)

1.4 Overview of Proposed Development

The proposed development site is c.4.33ha of predominantly greenfield land located to the north west of the M50 orbital ring in the townland of Johnstown and Coldwinters, on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11.

The proposal includes a Gas Insulated Switchgear (GIS) substation, compound and subsurface grid connection which will power the proposed data centre development submitted to Fingal County Council under FCC Ref. FW21A/0151.

A full description of the proposed development is provided in Section 8 of this report.

Having regard to the scale of the overall data centre project, it is considered appropriate to apply for a 10 year permission. The development will be constructed in tandem with the data centre (Buildings A and B) and the delivery of site infrastructure and landscaping works on site.

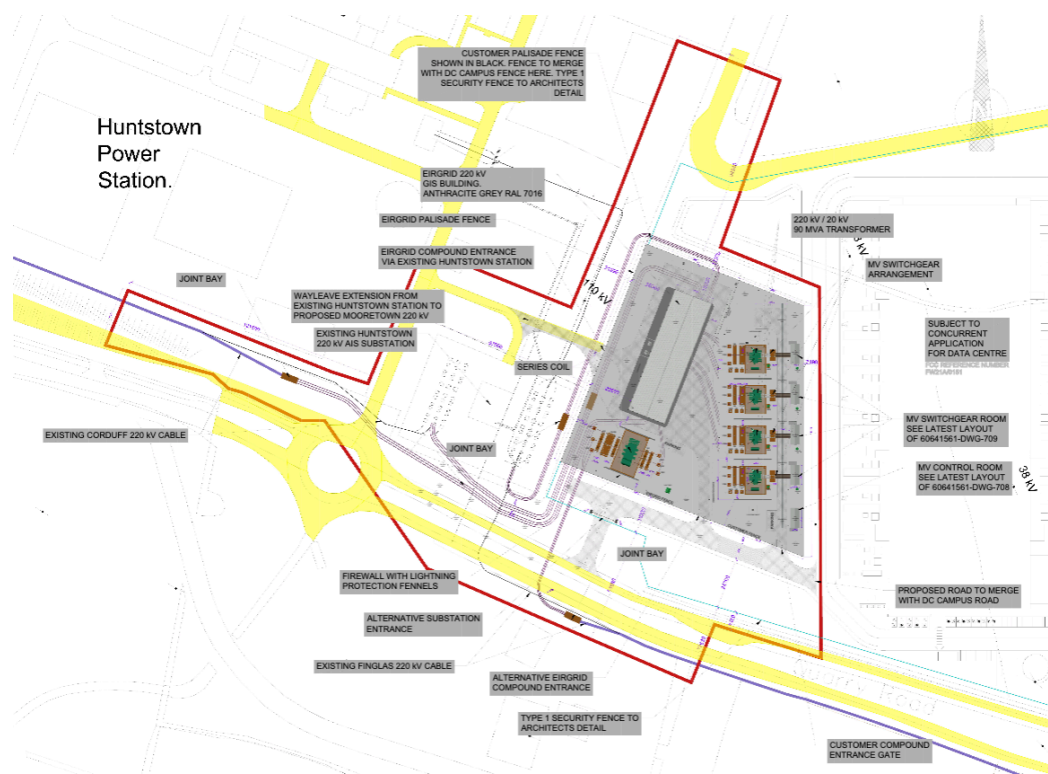


Figure 1 Development Site Plan

1.5 Summary of the Rationale for the Proposal Development

1.5.1 Compliance with the Zoning Objective – HI Heavy Industry

Given the symbiotic nature of the proposed substation and the data centre (concurrent application Ref. FW21A/0144 refers), the subject proposal is assessed below having regard to the overall development.

It is widely acknowledged that existing and permitted data centres with associated substations are located on lands zoned 'GE' or 'HT' in Fingal. However, given the nature of the proposal on a combined site area exceeding 16ha with a total floor area exceeding 78,000sqm, the development would give rise to such land use conflicts if located in other areas such as 'GE' and 'HT' zones:

- a) the scale and size of the substation and ancillary plant required for a development of this scale (including mv transformers, mv switchgear and electrical equipment etc.); and
- b) Co-locating the proposed development adjacent to the Huntstown power plants fulfils the criteria of the current EirGrid connection policy for data centres which allows the proposed development access to the electrical power it needs to operate. Without this co-location, the proposed development could not operate.

If the development was located elsewhere and on lands zoned GE or HT, the proposed development would need to include new thermal dispatchable power generation of the scale equivalent to the data centre campus power requirements. This new dispatchable power generation would have to be designed to run on a regular basis, run for long periods of time and would be in addition to any emergency back-up generation that is also be proposed. Furthermore, the proposal in terms of its scale, massing and visual impact notwithstanding the potential impacts arising from noise and vibration would conflict with the traditional business park setting where GE and HT land use zonings are located.

We draw the Planning Authority's attention to the transitional nature of the site adjoining GE zoned lands to the east and HI zoned lands to the west. A Substation is considered an appropriate use, bridging the gap between more traditional heavy industry uses (extractive industry and power plant) and small-scale commercial/logistics parks located on general employment zoned lands.

1.5.2 Site Suitability

The proposal for a data centre on site (subject of a separate application to FCC Ref. FW21A/0151) requires an electricity supply to operate. Under the current policy used by the electricity transmission grid operator EirGrid, the electricity supply to the development is only available if the development is co-located with electricity generating plants of equivalent scale. In this case, the existing Huntstown Power Plants.

In addition, the power plants and the development will be connected to the electricity grid through the same electrical infrastructure. As such, the proposed location is essential for the proposed development.

1.5.3 Sustainability

The 220 kV GIS building will be designed and constructed to meet the requirements of the Irish Building Regulations and current Technical Guidance Documents (TGD'S).



Waste management for both construction and post occupation will actively control the generation recycling and disposal of waste material.

The proposed development will facilitate the development of a data centre (Reg. Ref. FW21A/0151). The applicant is committed to running its business in the most environmentally friendly way possible and has developed an approach which will allow for the overall development to: (i) use existing infrastructure; and (ii) provide a mechanism which will aim to secure additional renewable energy generation.

1.5.3.1 Use of Existing Infrastructure

The proposed development will facilitate the development of a data centre (Reg. Ref. FW21A/0151).

The overall development has been strategically located to adjoin the Huntstown Power Station. The co-location of power generation and electricity consumption on the same site is beneficial as it minimizes the need for national grid network improvements, including new high voltage wires and cables that would otherwise be the case to transfer additional electricity to a new location, the cost of which would be partly paid for by all electricity users and provides the most energy efficient location for the energy consumer that minimizes electrical losses that occur when transferring electricity longer distances.

The co-location approach will avoid the requirement to build new on-site dispatchable gas power generation, avoiding the potential introduction of additional new fossil fuel generations and associated greenhouse gas emissions.

1.5.3.2 Renewable Energy Generation

Working alongside the overall development the applicant will obligate the facility end user of the data centre to enter into agreements which are capable of underpinning new renewable energy generation calculated to offset the energy consumed by the proposed development from the electricity grid.

1.6 Compliance with Planning Regulations

We confirm that prior to lodging this planning application, all relevant drawings were screened by this office with reference to the *Planning & Development Regulations, 2001 (as amended)* and are consistent with the spirit and intent of same.

In accordance with Article 19(1) and 19(2), the Site Notices have been printed on indelible ink on a yellow background and erected at conspicuous locations at entrances on and near public roads relating to the subject site.

In accordance with Article 22(2)(a), this planning application is accompanied by a copy of the newspaper notice and the site notice.

In accordance with Article 22(2)(b) and (d), this planning application is accompanied by 10 no. copies of a location map of sufficient size, prepared by AECOM Consulting Engineers, and clearly identifies, at a scale of 1:1,000 the lands which are the subject of this application outlined in red, adjoining lands owned by the Applicant in blue and wayleaves in yellow. The approximate location of the Site Notices erected are identified on the Site Location Map.

In accordance with Article 22(2)(g), this application is accompanied by all relevant letters of consent from the landowners.



In accordance with Article 22(2)(ga), this application is accompanied by an EIAR and copy of the confirmation notice.

In accordance with Article 22(2)(h), the appropriate fee payable to the Planning Authority with respect to this planning application is calculated in the accompanying planning application form.

In accordance with Article 23(1)(a) and (c), the lands which are the subject of this application are outlined in red on the enclosed Site Layout Plan at 1:500 scale by AECOM Consulting Engineers. Other features located on, adjoining or in the vicinity of the subject site are shown. The levels/contours of the site are also indicated on the Site Layout Plan.

In accordance with Article 23(1)(b), other plans, elevations and sections are shown at a scale not less than 1:200, where appropriate.

In accordance with Article 23(1)(d), drawings of elevations of any proposed structure shall show the main features of any buildings which would be contiguous to the proposed structure if it were erected.

In accordance with Article 23(1)(e), plans relating to works comprising reconstruction, alteration or extension of a structure are marked or coloured as to distinguish between the existing structure and the works proposed.

In accordance with Article 23(1)(f), plans and drawings of elevations and sections indicate in figures the principal dimensions (including overall height) of any proposed structure.

In accordance with Article 23(1)(g), all OS mapping is appropriately identified.

In accordance with Article 23(1)(h), the north point is indicated on all relevant maps and plans.



2. PRE-PLANNING ENGAGEMENT

In accordance with Section 182E of the Planning and Development Act 2000 (as amended), the applicant had two pre-planning consultation meetings with An Bord Pleanála on 12 June 2020 and 30 November 2020. ABP Ref. 306723-20 refers. A copy of this correspondence accompanies this application.

The purpose of the meetings was to determine whether the proposed works were considered Strategic Infrastructure Development.

2.1 Pre-Planning Meeting 1 (ABP-306723-20)

Following the submission of an initial design proposal, a formal meeting was held with An Bord Pleanála on 12 June 2020. The applicant met with Ciara Kellett (Assistant Director of Planning), Una Crosse (Senior Planning Inspector) and Niall Jennifer Sherry (Executive Officer).

The Applicant proposed the construction of a Data Centre development on undeveloped land linked to its existing power stations.

It was submitted that the site is ideally located to accommodate this form of development due to:

- Power availability from existing on-site power stations;
- On-site grid connection meshed with the adjacent power stations; and
- High speed fibre routes and water connection are available in the locality.

The proposed development at that point was expected to utilise:

- A total electrical load for the development of c180 MW;
- A new on-site GIS substation;
- 3 or 4 large data centre buildings with a total of over 100,000m² of ground floor area (including plant rooms, generator compounds, office space, air circulation and IT rooms) at a building height of c24m (including roof mounted plant).

The proposal presented to the Planning Authority on 12 June 2020 can be seen below in Figure 2.



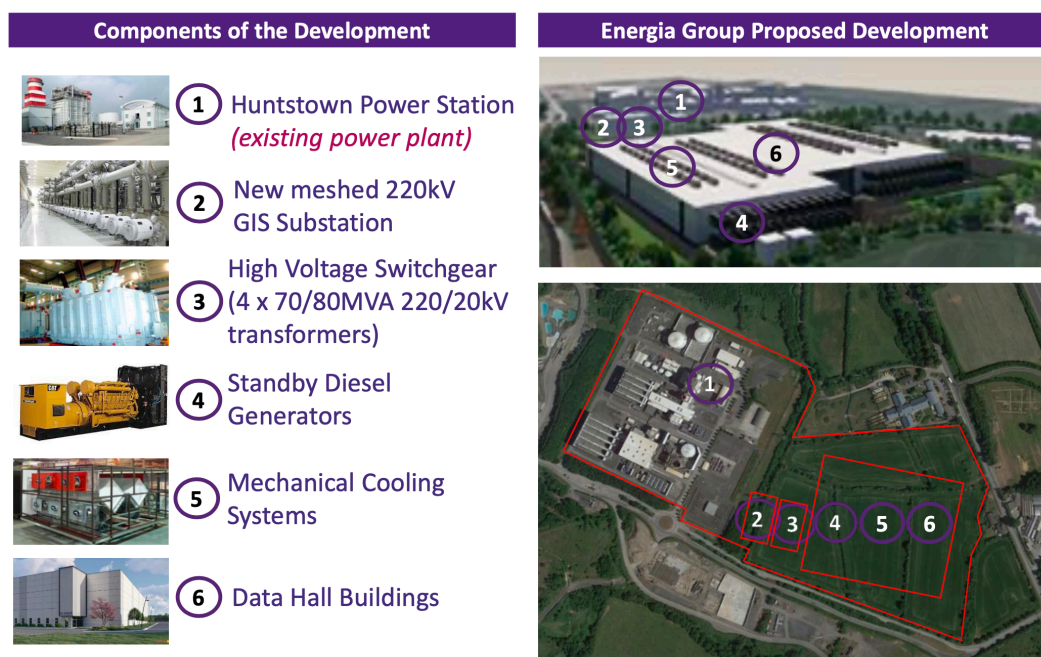


Figure 2 Presentation from Pre-planning meeting 12 June 2020

The following were the key points of discussion during this meeting:

Item 1: The Board's representatives expressed the principal consideration for the proposed development at this initial stage is to determine the relevant legislation within which the proposal might be considered.

Applicant Comment (Item 1) :

An application is now made to An Bord Pleanála under Section 182A of the Planning and Development Act, 2000 (as amended), in respect of the Electricity Transmission Development.

Item 2: Reference was made to the *Planning Development (Amendment) Act 2018 (16/2018)*, s. 49 which inserted a fifth section to the Seventh Schedule entitled *Communications and Data Infrastructure* which comprises 'a facility consisting of more than one structure, the combined gross floor space of which exceeds 10,000 square metres, used primarily for the storage, management and dissemination of data, and the provision of associated electricity connections infrastructure'

The Board noted that to date this section has not commenced and therefore the Board's representatives advised that under the current enacted provisions of the Seventh Schedule the current proposed development, in its entirety, would not constitute Strategic Infrastructure Development under section 37A of the Planning and Development Act, 2000 (as amended).

The Board noted that as it stands the application for the data centre element proposed should be made directly to Fingal County Council. The Board advised that an application under 182A of the Planning and Development Act, 2000 (as amended) could be made to the Board for the GIS substation and ancillary elements of the proposed development related to same.



Applicant Comment (Item 2):

An application is now made to An Bord Pleanála under Section 182A of the Planning and Development Act, 2000 (as amended), in respect of the Electricity Transmission Development.

Item 3: The Board's representations indicated to the prospective applicant that a further meeting can take place in the pre-application process to discuss the proposed development in detail.

Applicant Comment (Item 3):

A second pre-planning consultation took place between the applicant and An Bord Pleanála on 30 November 2020.

2.2 Pre-Planning Meeting 2 (ABP-306723-20)

Following a second pre-planning submission, a formal meeting took place with An Bord Pleanála on 30 November 2020. The applicant met with Ciara Kellett (Assistant Director of Planning), Una Crosse (Senior Planning Inspector) and Rob Mac Giollarnath (Executive Officer).

The revised proposal presented to the Planning Authority on 11 November 2020 can be seen below in Figure 3.

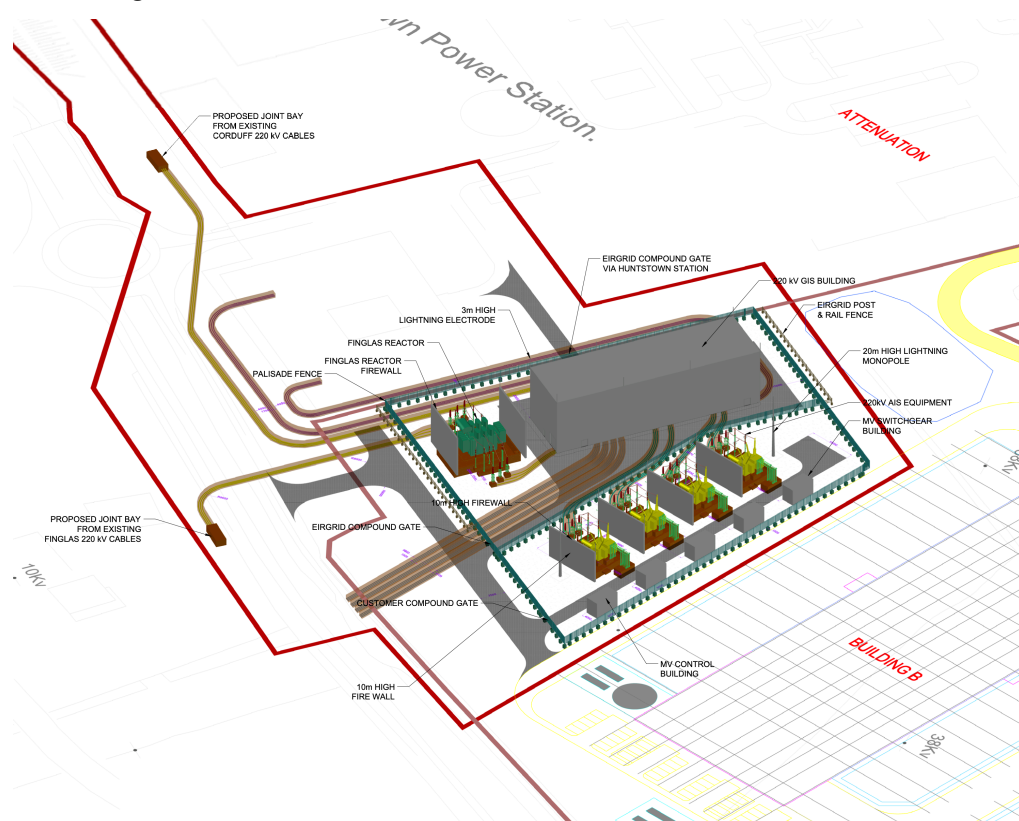


Figure 3 Indicative Site Plan presented 30 November 2020

- It was noted that since the previous meeting held on 12 June 2020, the applicant decided to continue pre-application consultations for the substation element of the proposed development only. It was confirmed that an application for the data centre element would be submitted to Fingal County Council for consideration.
- A presentation of proposed development was provided, outlining the design of the proposed substation and in particular referencing the landscaping scheme being considered.



- It was noted that proposed 220 kV substation, referenced as Mooretown, would create a new strategic node which would loop together the existing 220 kV Finglas and Corduff substation by diverting the Fingal and Corduff 220 kV cables into the new substation.
- It was confirmed that in respect of both applications (substation and data centre) there would be separate EIARs prepared. The Board's representatives outlined the requirements to address cumulative impacts relating to the other element of the proposal within the respective EIARs but clearly distinguishing each project.
- With respect to the Habitats Directive, the prospective applicant was of the preliminary view that an AA Screening Report would screen out the requirement for a Natura Impact Assessment.
- It was noted that it was the intention of the applicant to close out the process as soon as possible and proceed to application stage.

The Applicant submitted a letter to the Board on the 20 January 2021, outlining their desire to close the pre-application consultation process to allow for a determination to be issued.

2.3 An Bord Pleanála Determination

The Applicant received the Board's determination in a letter dated 5 February 2021. The letter indicated that the proposed development was considered Strategic Infrastructure and an application should be made directly to the Board.

The following prescribed bodies were identified in the determination:

- Fingal County Council
- Minister for Culture, Heritage and the Gaeltacht
- Minister for Communications, Climate Action and Environment
- Transport Infrastructure Ireland
- Irish Water
- An Chomhairle Ealaíon
- Fáilte Ireland
- An Taisce
- Heritage Council
- Commission for Regulation of Utilities, Water and Energy Health Service Executive
- Health and Safety Authority

The prescribed bodies listed above were contacted by this office and a copy of the application was sent to each body prior to lodgement of the application to the Board. We refer to the correspondence accompanying this application for more information.



3. SITE CONTEXT

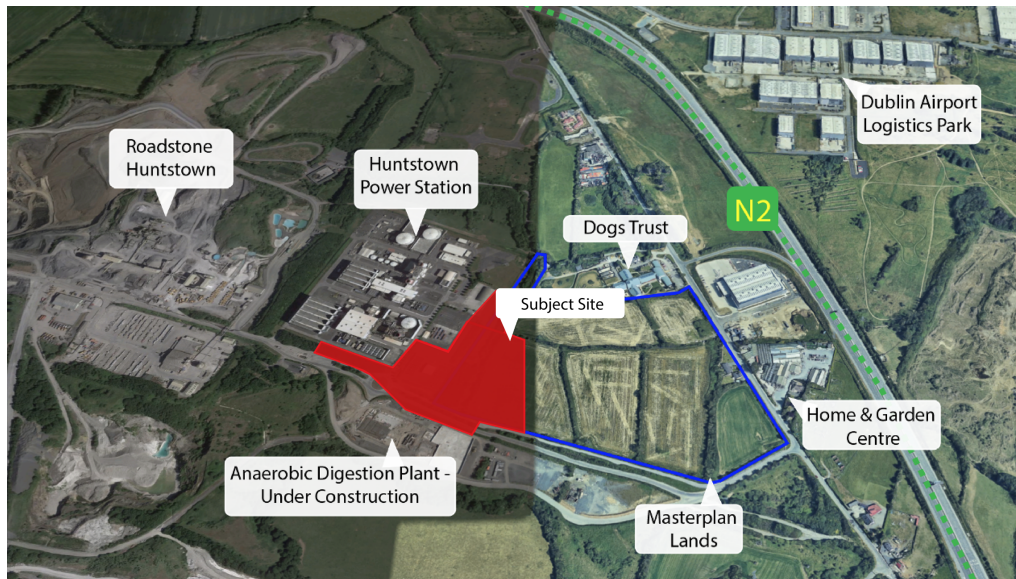


Figure 4 Subject site outlined in red

The subject site is located to the north west of the M50 orbital ring, on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11. The site subject to this application extends to c.4.33ha. A portion of the existing power plant is included in the subject site boundary.

The surrounding area is characterised by a variety of energy, industrial, commercial, quarrying, agricultural and residential uses. The overall site is generally bounded to the north by the Dogs Trust (Dog Rescue and Rehoming Charity), to the south by a vehicular entrance leading to the Huntstown Quarry and further south west by an Anaerobic Digestion Plant, to the east by the North Road (R135) and two residential properties fronting the R135 (demolition of both is included in the data centre application) and to the west by Huntstown Power Station.

A number of large logistics warehouse parks are located to the north east of the site including Dublin Airport Logistics Park and Vantage Business Park, Coldwinters, granted under Ref. F17A/0769 and further amended under Refs. FW19A/0053 and FW20A/0044. Several small scale commercial and service uses are scattered along the frontages of the R135 including: a garden centre; veterinary clinic and car repair facility.

The greenfield site is free from development. The topography of the site falls slightly in an east west direction.

A drainage ditch located on the western site boundary separates the subject site from the adjoining Huntstown Power Plant. A set of 110 kV overhead lines traverse the site in a north - south direction towards to the Finglas 220 kV substation complex to the south east of the site. A concurrent proposal for undergrounding these lines is subject of a separate Planning Application to Fingal County Council by TLI Group – Reg. Ref. FW21A/0144 refers.

The subject site is highly accessible to the national road network and is located less than 1 km from the M50/N2 interchange and approximately 0.1 km from the Coldwinters exit on the N2. The site is directly accessible from the R135 and via a service road to the south leading to Huntstown Quarry and Power Station.



Huntstown Power Station

The Huntstown Power Stations directly adjoin the subject site to the west and is within the ownership of the Applicant. The two phases of the Power Stations have been operational on the adjoining site since 2002 and 2007 respectively. The complex includes two gas fired combined cycle gas turbine (CCGT) electricity generation stations and ancillary structures/plant.

The implementation of the overall data centre project would directly support the long term viability of these neighbouring plants including its continued workforce level on site.

Anaerobic Digestion Plant

The Huntstown Bioenergy Plant (EPA Licence P0993-02) is a state of the art anaerobic digestion (AD) plant which converts organic waste, such as food waste, into a methane rich biogas which is then used to generate renewable electricity and heat from two Combined Heat and Power (CHP) engines. The electricity is exported to the grid and heat generated by CHP engines is used in the process.

The 4.8 MW bioenergy plant, located adjacent to the two existing Energia power stations and the subject site, has the capabilities to process up to 99,900 tonnes per year of organic waste from the Greater Dublin area, helping to protect the environment, reduce greenhouse gas emissions and provide organic fertiliser for agriculture.



Figure 5- Aerial Photograph showing the Anaerobic Digestions/Bio Energy Facility

Dogs Trust

The Dogs Trust rehoming charity is located to the north east of the subject site. The centre which opened its doors in 2009 is Ireland's largest dog welfare charity and employs upward of 83 staff members and volunteers.



The protection of the amenity of the Dogs Trust property has been a key consideration during the design process. The design team has endeavoured to achieve a balance between the amenity of sensitive receptors such as the Dogs Trust and the functional requirements of the proposal.

3.1 Site Photos and Existing Condition



Figure 6 View from the east looking towards the power station



Figure 7 Existing Power Station Entrance to the south west, photo taken from north of the Anaerobic Digester Plant.



4. PLANNING HISTORY

Subject Site

There are currently 2 no. concurrent applications under consideration by the Planning Authority for the overall development of the subject lands. These relate to a data centre development and facilitative works to accommodate the data centre development on the lands, see below:

- **FW21A/0144** - The development will consist of the installation of electrical infrastructure between Finglas substation and Huntstown Power Station to facilitate the retirement of existing Electricity Supply Board overhead powerlines and facilitate site clearance for the future development of a data centre and substation (subject to separate planning applications).
- **FW21A/0151** - Construction of 2 no. data hall buildings (Buildings A and B) comprising data hall rooms, mechanical and electrical galleries, ancillary offices including meeting rooms, workshop spaces, staff areas including break rooms, toilets, shower/changing facilities, storage areas, lobbies, outdoor staff areas, loading bays and docks, associated plant throughout, photovoltaic panels and screened plant areas at roof levels, circulation areas and stair and lift cores throughout.

The subject site has no recent or relevant planning history prior to the lodgement of the concurrent applications for the overall development.

Relevant Planning History – Surrounding Context

Below is the planning history of the existing residential units within the red line boundary of the overall development site.

Reg Ref: F97B/0105

Permission was granted 27 October 1997 for the development of a porch, additional bedrooms and conservatory at rear of cottage.

Reg Ref: F08B/0473

Permission was granted 21 October 2008 for the construction of a 21.5 m² single storey domestic extension to the front of the existing dwelling along with all associated site works and minor associated amendments to the original dwelling.

Huntstown Power Station

Reg Ref: F98A/1313

Permission was granted 25 March 1999 for a Gas-fired Combined Cycle Gas Turbine electricity generation station with an output of up to 600 MW, to be developed in two phases

Reg Ref: F98A/1313/E1

An Extension of Duration of permission was granted for a Gas-fired Combined Cycle Gas Turbine electricity generation station with an output of up to 600 MW, to be developed in two phases. An Extension of Duration of permission was granted 1 July 2004.

Reg Ref: F01A/1046

Permission was granted 4 December 2001 to alter development granted under planning permission for a power generation station - Reg.Ref.F98A/1313.

Reg Ref: F03A/0272



Permission was granted 11 June 2003 for the alteration of development granted under planning permission for Phase 2 of Huntstown Power Generation Station, Reg. Ref. F98A/1313.

Reg Ref: F04A/0408

Permission was granted 22 June 2004 to increase the nominal power output of Huntstown Combined Cycle Gas Turbine (CCGT) Power Generation Station as granted under Reg. Ref. F98A/1313.

Reg Ref: F05A/0490

Permission was granted 17 July 2005 to alter development granted under planning permission for Phase 2 of Huntstown Power Generation Station, Reg. Ref. F98A/1313.

Reg Ref: F06A/0964

Permission was granted 14 December 2006 to alter development granted under planning permission for Phase 2 of Huntstown Power Generation Station, Reg. Ref. F98A/1313.

Reg Ref: FW19A/0015

Permission was granted 30 April 2019 for development will consist of a Battery Energy Storage System (BESS) which will include up to 9 no. containerised battery storage modules up to 14m length, 2.44m wide and 2.9m high) and ancillary equipment.

Metro

Reg Ref: SID/02/10

Application for a Railway Order (Metro-West) - Old Blessington Road, Tallaght to Dardistown, County Dublin.

This application was withdrawn 26 September 2011. The Metro West project envisaged a Light Rail stop at Huntstown and the route traversed the subject site to the south. Metro West was cancelled in 2011 and in 2016 it was excluded from the Transport Strategy For The Greater Dublin Area 2016-2035. It is therefore not considered relevant to the future development of the lands.

AD Plant

Reg Ref: FW13A/0089

Planning permission was granted 12 November 2013 for the construction of a Renewable Bioenergy Plant to generate up to 3.8 MW of electricity from 90,000 tonnes of non-hazardous biodegradable waste per annum utilising Anaerobic Digestion (AD) technology on a 2.38 hectares site within Roadstone Wood's Huntstown Quarry, Huntstown, North Road, Finglas, Dublin 11 An Extension of Duration of permission was granted until 11 November 2023 for the above application.

Ref Ref: FW18A/0082

Permission was granted 28 August 2018 for the development of a wastewater treatment plant. The wastewater treatment plant permitted under planning ref. FW13A/0089 will be substituted for the proposed wastewater treatment plant. The boundary will be landscaped in accordance with planning ref. FW13A/0089. Planning ref. FW13A/0089 is the subject of an Industrial Emissions Licence issued by the EPA (ref. P0993-01).

Reg Ref: FW18A/0159

Planning Permission was granted 20 January 2019 an increase in the annual volume of waste to be imported to the permitted bioenergy plant at Huntstown, North Road, Finglas, Dublin 11. The proposed increase is 9,900 tonnes, which would take the permitted volume from 90,000 tonnes to 99,900 tonnes.



Dogs Trust

Reg Ref: F06A/1680

Planning permission was granted 24 May 2007 for the construction of a part single storey / part 2 storey Dogs Re-homing Centre consisting of 81 kennels and ancillary facilities including public viewing areas, training rooms, secure areas, veterinary facilities (total gross floor area 3215 sqm) on a site of 2.52 hectares. This application was appealed to An Bord Pleanála 13 December 2007 and the grant from Fingal County Council was upheld.

Reg Ref: F08A/0694

Permission was granted 29 August 2008 for the modification of previously approved permission reg. ref. F06A/1680

Reg Ref: FW09A/0107

Planning permission and retention planning permission was granted 14 October 2009 for; modifications to previously granted development under file ref: F08A/0694 & PL06F.223983

Reg Ref: FW13A/0018.

Permission was granted 28 May 2013 for extension to and modifications of the Dogs Trust Rehoming Centre previously granted under reg. ref. FW09A/0107, F08A/0694 and PL06F223983

Reg Ref: FW13A/0143

Planning Permission and Retention Permission was granted 24 March 2014 for development at this site address of 2.63 ha. As previously granted under reg. ref. FW09A/0107, F08A/0694, PL06F223983 (F06A/1680) and FW13A/0018. The development consists of: - Development of a 2.4-metre-high weldmesh fence to enclose walkway along the southern boundary. - Provision of new lighting along path at southern boundary and on the external pathways in the centre - New landscaping treatment to existing exercise runs. - Retention of revised layout of pedestrian boardwalk access along the southern boundary as permitted under Reg. Ref. FW13A/0018.

Research & Development Facility

Reg Ref: FW20A/0063

Permission was sought for the construction of a single storey 5,000m² research and development building, which will specialise in developing pilot scale circular economy solutions for a range of discarded resources; including associated office and welfare facilities. The development included fencing and boundary treatment, signage, internal access roadways and a site entrance. Permission was also sought for all associated site works and services. Following a request for further information, permission was refused on the 13 May 2021 by Fingal County Council. Three reasons for refusal were provided and included the following:

1. Inadequate information provided in relation to the development.
2. Inadequate consent provided in relation to surface water connection and contravention of the County Development Plan (Objective SW04) relating to same.
3. No consent provided for proposed works located on third party lands.

Relevant Planning History - Data Centres

The Fingal administrative area is an established area for the provision of Data Centres, due to its ideal location proximate to city infrastructure and the T50 cable route:



Ref	Applicant	Location	Approval Date	Site Area (Hectares)	Floor Space (m ²)
FW20A/0214	Springton LTD	Blanchardstown	15- Apr-21	1.3	13,459
FW20A/0181/ FW19A/0089	K2 Strategic Infrastructure Ireland	Ballycoolin	28-Jan-21	9.2	59,143
FW19A/0087	MIK Developments LLC	Mulhuddart	29-May-19	7.5	43,410
FW18A/0114	South Dublin Routing 4 Limited	Ballycoolin	31-Oct-18	5.7	40,635
FW18A/0078	Maris Developments LCC	Ballycoolin	28-Aug-18	1.6	8,677
FW17A/0025	ADSIL	Mulhuddart	25-Apr-17	26.1	23,165
FW20A/0087	Equinix	Ballycoolin	18-Nov-20	3.3	25,225
FW15A/0135	ADSIL	Ballycoolin	12-Jan-16	3.5	16,266
FW15A/0117	St. Stephens Green plc	Ballycoolin	20-Nov-15	4.1	11,485

Table 1 - Relevant Data Centre Planning Permissions



5. RATIONALE FOR THE PROPOSED DEVELOPMENT AND COMPLIANCE WITH ZONING OBJECTIVE

5.1 Rationale for Development

The rationale for development derives from the energy requirements of the proposed data centre to the east of the subject site. It should also be noted that the substation and cabling works will form part of the transmission network for the wider area.

Although ancillary to the data centre, the substation and cabling works are essential to the daily operations of the facility and in turn the wider transmission network on which companies rely upon to conduct their daily business.

ICT is an essential part of modern business and daily life by providing fast and reliable communications between users. ICT contributes to a more efficient way of working and learning facilitating remote access while also reducing the need to travel thus contributing to a more sustainable and efficient environment.

The proposal will assist in meeting demand growth in the sector, strengthen the network and improve the quality of supply for all users.

Notwithstanding the operational requirements of the data centre in terms of size, scale and format, the substation has been sensitively designed having regard to the surrounding built environment.

The location of the underground transmission lines minimise impact on existing underground services and provide the least disruption to neighbouring properties. It is noted that the location and design of the proposal has been carefully considered in line with EirGrid specifications.

The site is ideally located with no potential flood risk identified.

5.2 Compliance with Zoning Objective

Permitted in Principle - Utility Installations are listed as a 'Permitted in Principle' use under 'HI Zoning'.

Utility Installations are defined under the Fingal County Development Plan as ***'A structure composed of one or more pieces of equipment connected to or part of a structure and/ or a facility designed to provide a public utility service such as the provision of heat, electricity, telecommunications, water or sewage disposal and/or treatment'.***

The proposed development of a 220 kV substation and switchgear will (a) facilitate the development of a data centre (Planning Reg. Ref. FW21A/0151); and (b) strengthen and increase resilience and redundancy of the EirGrid 220 kV network in the north Dublin area. The proposed 220 kV substation will be developed as per EirGrid's standard building design and will have space for future (4 no.) 3rd party 220 kV connections.



Having regard to the later (i.e. strengthening and increasing resiliency and redundancy of the network), it is considered that the development of a substation would fall under the definition of ‘utility installation’.

Sui Generis

As noted above, the proposed development would also facilitate the data centre development (Planning Reg. Ref. FW21A/0151). In this regard, the substation and data centre uses would be considered sui generis (or ‘of its own kind’) in that it does not readily fit into the defined land use categories specified in the County Development Plan. Moreover, the Development Plan does not specify a definition of ‘heavy industry’ in its glossary of terms.

The County Development Plan provides that uses which are neither ‘Permitted in Principle’ nor ‘Not Permitted’ will be assessed in terms of their contribution towards (i) the achievement of the Zoning Objective and Vision Statement and (ii) their compliance and consistency with the policies and objectives of the Development Plan.

(i) Zoning Objective and Vision Statement

Zoning Objective

Under the current County Development Plan, the zoning objective for the site is “Provide for heavy industry”.

The Development Plan does not specify a definition of ‘heavy industry’ in its glossary of terms. However, it is noted that the Development Plan states that “The purpose of the Heavy Industry (HI) zoning is to facilitate opportunities for industrial uses, activities and processes that may cause or result in adverse conditions to appropriate locations.

Zoning Vision

The vision for the HI zoning is to: “Facilitate opportunities for industrial uses, activities and processes which may give rise to land use conflict if located within other zonings. Such uses, activities and processes would be likely to produce adverse impacts, for example by way of noise, dust or visual impacts. HI areas provide suitable and accessible locations specifically for heavy industry and shall be reserved solely for such uses.”

Contribution Towards Achievement of zoning Objective and Vision

The proposed development will be required in order to power the data centre proposed under Planning Reg. Ref: FW21A/0151

Given the nature of the overall proposal, including:

- Proposed Substation
- Concurrent Data Centre: c.75,000sqm GFA on a site area of over 13ha; and
- The scale of the required on site dispatchable generation

and having regard to the point (a) and (b) below, it is considered that the overall proposed development would give rise to such land use conflicts if located in other areas such as ‘GE’ and ‘HT’ zones:

a) the scale and size of ancillary plant required for a development of this scale (including cooling towers/flues; fuel tanks, transformers etc.), substation and electrical equipment; and

b) Co-locating the proposed development adjacent to the Huntstown power plants fulfils the criteria of the current EirGrid connection policy for data centres which allows the proposed development access to the electrical power it needs to operate. Without this co-location the proposed development could not operate.



If a similar development was located elsewhere (and not co-located with existing power generation), under the current EirGrid policy for data centres that facilitates access to the electrical power needed to operate, the proposed development would need to include new dispatchable thermal power generation of the scale equivalent to the data centre campus power requirements. This new dispatchable power generation would have to be designed to run on a regular basis, run for long periods of time and would be in addition to any emergency back-up generation that may also be proposed.

Given the EirGrid policy, the development of a data centre of this scale with co-located dispatchable thermal power generation in other land use zonings such as General Employment or High Technology, would be inappropriate as the necessary co-located dispatchable power generation plant required would be substantial and create land use conflicts due to noise, vibrations, fumes, appearance, etc. in for instance business park settings.



HI – ‘Heavy Industry’ – Permitted in Principle			GE – ‘General Employment’ – Permitted in Principle Uses			HT – ‘High Technology’ – Permitted in Principle Uses		
Abattoir	Concrete/asphalt	Extractive Industry/Quarrying	Builders Provider/Yard	Civic Facility	Waste Enterprise Centre	Enterprise Centre	High Technology Manufacturing	Hospital
Fuel Depot/Fuel Storage	Heavy Vehicle Park	Industry High Impact	Food, Drink and Flower Preparation/Processing	Fuel Depot/Fuel Storage	High Technology Manufacturing	Industry – Light	Office Ancillary to Permitted Use	Office ≤ 100sqm
Office Ancillary to Permitted Use	Open Space	Plant Storage	Industry – General	Industry – Light	Logistics	Office > 100sqm and < 1,000sqm	Office ≥ 1,000sqm	Open Space
Restaurant/Café	Retail - Local < 150 sqm nfa5	Sustainable Energy Installation	Office Ancillary to Permitted Use	Open Space	Petrol Station	Research and Development	Restaurant/Café	Retail - Local < 150 sqm nfa5
Telecommunications Structures	Utility Installations	Waste Disposal and Recovery Facility (High Impact)	Research and Development	Restaurant/Café	Retail - Local < 150 sqm nfa5	Sustainable Energy Installation	Telecommunications Structures	Training Centre
			Road Transport Depot	Sustainable Energy Installation	Telecommunications Structures	Utility Installations		
			Training Centre	Utility Installations	Vehicle Sales Outlet - Small Vehicles			
			Vehicle Sales Outlet - Large Vehicles	Vehicle Servicing/Maintenance Garage	Warehousing			
			Waste Disposal and Recovery Facility (Excluding High Impact)	Wholesale				

Table 2: Permissible uses for ‘HI’, ‘GE’ and ‘HT’ Land Use Zonings



The following industrial classifications are defined in the County Plan as follows:

Industry High Impact - The use of a building, or part thereof, or land for any industry which requires special assessment due to its potential for detrimental environmental effects.

Industry Light - The use of a building, or part thereof, or land for industry in which the processes performed, or the machinery installed, are such as could be carried on or installed adjacent to a residential area without detriment to the amenity of that area by reason of impacts such as noise, vibration, smell, fumes, smoke, soot, ash, dust or grit.

Industry General - The use of a building, or part thereof, or land for any industry other than a light industry or high impact industry (explained below). Ancillary uses which are subservient to the main industrial use such as small office and car park are included in the use class.

As illustrated in the tables above:

- ‘Industry - High Impact’ use is only permitted in principle under ‘HI’ zoning. The use is not listed under any other zonings identified in the County Plan.
- ‘Plant Storage’ use is only permitted under the ‘HI’ Heavy Industry and ‘WD’ Warehousing and Distribution zonings set out in the Plan.



Permissible Uses	Proposed Development
Industry - High Impact (only available in HI zoning)	<p>‘Industry High Impact’ is defined as “The use of a building, or part thereof, or land for any industry which required special assessment due to its potential for detrimental environmental effects.”</p> <p>The proposed development is unique in that the site is co-located to an existing power plant, which is considered an ‘industry – high impact’ use.</p> <p>The development of the substation as facilitative infrastructure for a data centre in other land use zonings (e.g. General Employment, High Technology) would be inappropriate in the case of the subject proposal, as the necessary dispatchable power generation assets required would create land use conflicts due to noise, vibrations, fumes, appearance, etc. in business park settings.</p>
Utility Installations	<p>‘Utility Installation’ is defined as “A structure composed of one or more pieces of equipment connected to or part of a structure and/ or a facility designed to provide a public utility service such as the provision of heat, electricity, telecommunications, water or sewage disposal and/or treatment.</p> <p>Having regard to planning precedent set by established substation developments in the County, electricity substations and transmission lines fall broadly under the term utility installation. This is widely accepted by Fingal County Council and An Bord Pleanála in granting similar substation applications in the administrative area of Fingal.</p>

Table 3 - Heavy Industry Permissible uses in the context of the Proposed Development

(ii) Compliance and Consistency with the Policies and Objectives of the Development Plan

The Proposed Development is supported by and is consistent with a number of policies and objectives set out in the Fingal County Development Plan including:

- **Objective EN02, EN03, EN04, EN06, EN09**
- **Objective ED109, Objective ED110, Objective ED112**
- **Objective DMS103**

5.3 Site Suitability

The subject site was identified as an optimum location for the substation which will be associated with, and will provide the permanent power supply for the proposed large scale data centre development (Planning Reg. Ref. FW21A/0151.)

Locating the substation adjacent to the data centre will minimize electrical losses that occur when transferring electricity longer distances.

As well as the benefits deriving from its proximity to the data centre, the proposed development will also strengthen and increase the resilience of the EirGrid 220 kV network in the north Dublin area.

The existing Huntstown AIS has two separate bays such that the Huntstown 1 generating station is connected to the Finglas 220 kV Station via an underground cable and the Huntstown 2 generating station is connected to the Corduff 220 kV Station via an underground cable. There is no facility at the existing Huntstown AIS to connect the Finglas and Corduff cables together or to connect the two Huntstown generators together or indeed to provide any further new connections.

The proposed Mooretown GIS would form a new node adjacent to the existing Huntstown AIS such that the existing Finglas and Corduff cables are connected directly into the new enhanced ring type node. New cables would then connect the new Mooretown Station to the existing Huntstown AIS Huntstown 1 and Huntstown 2 equipment and four new cables to the proposed data centre transformers.

With this new node the network is strengthened by having the ability to connect Finglas, Corduff, Huntstown 1, Huntstown 2 and the 4 data centre load transformers together at one node and resilience is increased by the flexibility of the dual connections to the wider network at Finglas and Corduff.

Conclusion

In summary, it is submitted that the subject site is appropriate both in terms of the nature of the use proposed and compliance with the zoning objective based on the definitions contained in the Fingal County Development Plan.

The scale of the overall development cannot be readily accommodated in other land use zones within the Fingal administrative area.

As Data Centres are not defined within the County Development Plan, it has been demonstrated that the overall development would contribute towards (i) the achievement of the Zoning Objective and Vision Statement and (ii) compliance and consistency with the policies and objectives of the Development Plan.

In this regard it is submitted that the site rationale and compliance with the zoning objective align well and can be positively assessed by the Planning Authority on the basis of the information provided in this application.

6 COMPONENTS OF THE OVERALL MASTERPLAN

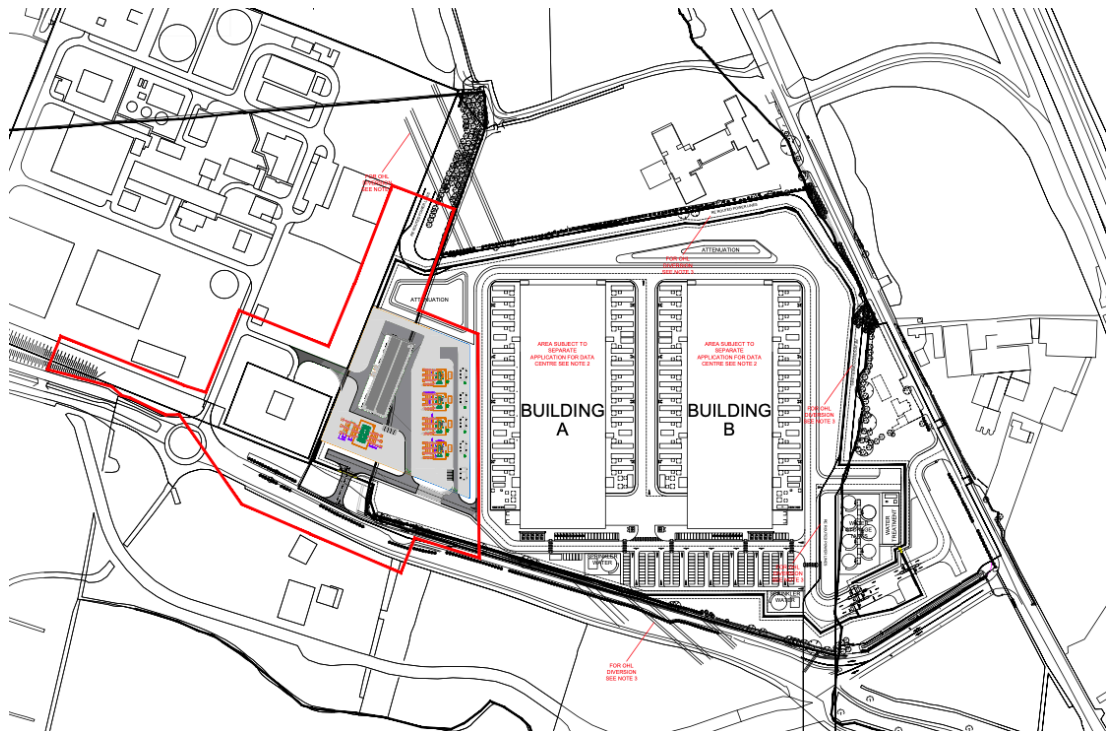


Figure 8 Overall Site Masterplan

1. Undergrounding of Overhead 110 kV lines – Concurrent application (Reg. Ref. FW21A/0144)

The proposed data centre development (Reg. Ref. FW21A/0151) will be facilitated via a separate planning application which proposes the removal of overhead electricity transmission lines and associated transmission masts which traverse the site to be replaced with underground cabling routed around the location of the data centre. This clears the central portion of the site to allow for development.

2. Data Hall Development – Concurrent application (Reg. Ref. FW21A/0151)

Data Hall Buildings

The proposed data centre buildings are formed by two distinct functional areas. The principal larger function contains data storage rooms and their corresponding electrical and mechanical plant rooms. The administration and service block houses ancillary support areas, loading bays, storage, offices and staff welfare facilities.

Standby Emergency Diesel Generators

Enclosed generator yards are located to the east and west of Buildings A and B comprising 28 no. generators per data hall + 1 no. generator per administrative building, equating to 58 no. generators in total.

These generators will only operate in the unlikely event of a loss of power supply i.e. grid blackout. It is anticipated, that back-up generators will rarely be used in such an instance.

Mechanical Cooling Systems

The location of the facility in Ireland allows for the use of free-cooling media without the need for excessive mechanical cooling. To take advantage of this resource, the air handling units will be direct evaporative (adiabatic) cooling type.

The proposed data storage facility has considered the sustainable use of water within its design. The data halls will be air cooled by air handling units via free air cooling for the majority of the time with evaporative (adiabatic cooling) during unusual high temperature periods (temperatures typically greater than 25 degrees Celsius). During normal operation the data storage buildings will be air cooled which significantly reduces the requirement for water compared to mechanical chilling, or a fully water cooled design.

Airside heat recovery systems with air-to-air heat pumps shall be installed in the office areas. These systems are to accommodate the fresh air and heating/cooling requirements for the space.

10 kV Overhead lines- Subject to engagement with ESB

A short section of 10 kV overhead line traverses the south/eastern section of the subject site. A small number of pole sets and associated cables will need to be moved. Future engagement with ESB will determine whether or not the cables will be undergrounded.

3. New meshed 220 kV GIS Substation and High Voltage Switchgear (including four 90 MVA 220/20 kV transformers) – Subject to this application

The existing Huntstown power plants are currently connected to the grid through separate onsite Air Insulated Switchgear (AIS) substation bays with one of the power plants connected to the Finglas 220 kV high voltage substation and the other connected to the Corduff 220 kV high voltage substation.

The proposed substation development will be a 2 storey 220 kV Gas Insulated Switchgear (GIS) substation which will form a new node adjacent to the existing Huntstown AIS such that the existing Finglas and Corduff cables are connected directly into the new substation and new cables would then connect the new Mooretown GIS substation to the existing Huntstown AIS - Huntstown A and Huntstown B equipment.

The data centre will be powered through a short connection linking 4 bays in the GIS to 4 220 kV/20 kV transformers, associated switchgear and control room located electrical compound immediately adjacent to the new GIS.

PROPOSED DEVELOPMENT

The proposed development will consist of the following:

The underground transmission lines (4 no.) will connect the proposed 220kV GIS Mooretown Substation serving the data hall development proposed under concurrent application (Reg. Ref. FW21A/0151) located on lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin 11 with the 220kV Finglas cable route located to the south of the site on the private road connecting the North Road with Huntstown Power Station and Huntstown Quarry, with the 220kV Corduff cable route located to the west of the site and just north of the private road connecting the North Road with Huntstown Power Station and Huntstown Quarry and to the existing Huntstown 220kV AIS station to the west via 220kV cables to the Huntstown A and Huntstown B circuits. The four proposed transmission cables cover a distance of between c.125m and c.300m each between the proposed substation and the adjacent connection points.

The proposed development will consist of the following:

(1) Construction of a 2 storey 220kV Gas Insulated Switchgear (GIS) substation known as 'Mooretown' comprising switchgear floor, cable pit/entry room, generator room, relay room, battery room, workshop, toilet, store room, mess room, hoist space, stair cores and circulation areas (c.2,068sqm total gross floor area) with an overall height of c.17m located within an overall EirGrid and Customer compound (c.11,231sqm in area). Lightning electrodes are attached to the roof of the substation building resulting in an overall height of c.20m. The compound includes 4 no. 220kV/20kV transformers, 4 no. 20kV switchgear buildings and 1 no. mv control room buildings (c.5m high and c. 35.5 sqm in area each), 220kV series coil (equipment), fire walls (ranging from c.10m-12.5m high), lightning finials and monopoles (c.20m high). The overall compound is surrounded by a c.2.6m high palisade fence. The proposed substation will serve the data centre proposed under concurrent application Reg. Ref. FW21A/0151;

(2) The underground cable (Cable No. 1) will follow a route originating at the proposed Mooretown Substation extending south and then west along the private road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Corduff cable route. The underground cable (Cable No. 2) will follow a route originating at the proposed Mooretown Substation Compound / series coil extending south across the internal road connecting the North Road with Huntstown Power Station and Huntstown Quarry. The route terminates at a proposed joint bay on the existing Finglas cable route. Removal of the redundant sections of the 220kV Corduff cables and 220kV Finglas cables serving the existing AIS bay to Huntstown Power Station. The underground cable (Cable No. 3) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing ESB Huntstown A AIS station. The route terminates in the ESB Huntstown A AIS Station. The underground cable (Cable No. 4) will follow a route originating at the Mooretown GIS Substation extending south and then west to the adjacent existing Huntstown B AIS station. The route terminates in the ESB Huntstown B AIS Station;

(3) The development includes all associated and ancillary site development and construction works, services provision, drainage works, connections to the substations, all internal road/footpath access routes, landscaping and boundary treatment works, vehicular access onto the private road to the south of the site and provision of 9 no. car parking spaces in the overall compound.

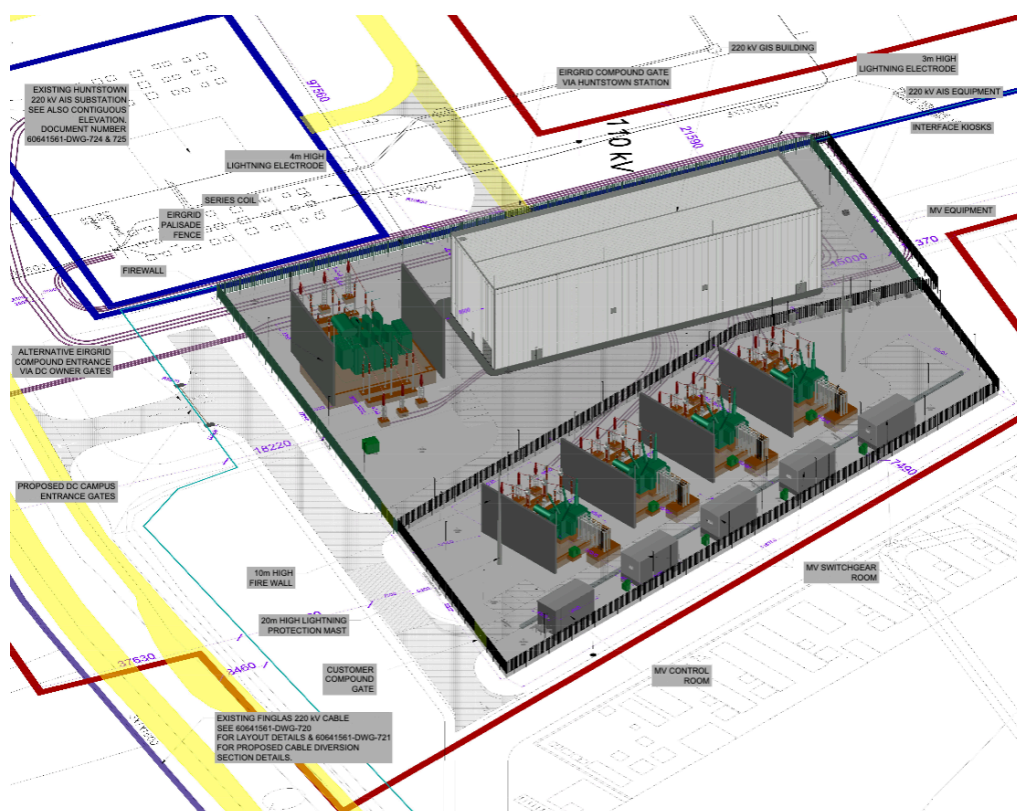


Figure 9 3D Visualization of Subject Proposal

7.1 Site Specific Response

The primary objective of the site strategy is to fulfil program requirements while providing mitigation to visual impact, noise and emissions and protecting and enhancing the ecological value of the land.

Buildings and plant installations are tightly contained centrally to maximise landscaping mitigation around the full perimeter of the site in the form of a landscaping belt, and in particular along the most sensitive aspects to east (North Road) and north (Dogs Trust Ireland), softening transition areas and screening installations visible from site boundaries.

7.2 Architectural Approach

The GIS building construction technology will be a bespoke structural steel frame on reinforced concrete foundations with an insulated roof and proprietary insulated metal wall cladding. The main parapet will be at ca. 17.00 m from ground floor level, which is lower height than the proposed Data Centre buildings. The wall cladding exterior colour will match the darker colour of the lower façade of the proposed adjacent data centre facility.

Secondary buildings containing Medium Voltage Switchgear and Medium Voltage control equipment will be clad with materials to match the GIS building to ensure continuity of finishes throughout the facility.

Boundary treatment will consist of fencing and landscaping which will provide screening to ancillary equipment.

7.3 Phasing

It is envisaged that the substation works will be carried out after the installation of electrical infrastructure between Finglas substation and Huntstown Power Station to facilitate the retirement of existing ESB overhead power lines and in tandem with the proposed data centre development on site subject to successful grants of permission for both applications.

7.4 Access/Car Parking

The main vehicular entrance to the substation campus will be via the Huntstown Power Plant.

There will be a secondary entrance to the south of the site that will provide an alternative access to the site via the Roadstone Huntstown Quarry Road. It will also be possible to access the substation site via the proposed Data Centres internal access road network.

Car parking provision to cater for maintenance and operations staff will be 5 spaces for the EirGrid side of the substation compound and 4 spaces for the customer side of the substation compound. The substation building is an unmanned facility with visiting maintenance crews. This is generally a two person crew visiting the site for 2 days per month. Disabled parking spaces are not proposed due to occupancy and usage of the substation. Electric vehicle charging ports are provided as part of the adjacent power station facility.

7.5 Landscaping and Boundary Treatments

It is noted from the outset that the lands allocated for the proposed substation (to the south west of the overall site) have been assessed as part of the concurrent data centre development.

The level of hardstanding proposed within the substation compound is an EirGrid specification. All remaining areas are landscaped in accordance with plans and particulars submitted with the data centre development Reg. FW21A/0151.

The proposed landscape design aims to enhance the existing ecological and wildlife assets, to contribute to visual impact mitigation and to provide a visual amenity both to the public realm and to staff and visitors within the facility.

The landscape strategy proposes to enhance and strengthen the existing hedgerow using native hedgerow and woodland species, while retaining the existing trees planted in and around the hedgerow. In addition to strengthening the remnants of the existing hedgerow, planting of a new native hedgerow is also proposed. Through selective management of the hedgerows, the network of existing ecological corridors will be strengthened to support the local wildlife of the surrounding area.

The main landscaping features proposed are a visual screening belt consisting of a triple staggered line of native trees which will be 4.5 to 5 metres tall on day 1 of operations with potential to grow up to 16 metres.

The existing hedgerows to the south of the development site are to be retained and enhanced to screen the development

All tree and plant species proposed are native.

7.6 Environment and Ecology

It is a significant element of the overall development to maintain and enhance the ecological value of the site through a substantial green belt around the northern, eastern and southern boundaries and the integration of surface water attenuation basins, landscaping and planting to provide a wild life corridor and a soft transition to neighbouring sites and the public realm.

Habitats found on site (tree lines, hedgerows and recolonising bare ground) have potential to support commuting, foraging and roosting for bats as well as breeding and foraging habitat for a variety of breeding and wintering bird species. Mitigation measures accounting for seasonal limitations are being put in place.

Environmental modelling to assess noise generation and air quality has been carried out to ensure adherence with statutory requirements.

Further detail is provided in Chapters 9 and 10 of the Environmental Impact Assessment Report (EIAR) submitted with this application.

7.7 Visual Impact

We refer the Planning Authority to the enclosed Landscape & Visual Impact Assessment prepared by Kevin Fitzpatrick and included as Chapter 11 of the EIAR.

The extent of potential visual impact of the proposed development on the built environment was assessed from 8 representative view locations around the proposed development. The view locations assessed are representative of locations from which it was suggested by mapping analysis that development might be visible. Photomontages from these locations are included in the application.

It is noted by Kevin Fitzpatrick that the development would cause a shift in landscape character, from the current peri-urban condition towards employment-dominated urban, contributing to the realisation of the development strategy for the area.

Implementation of the Landscape Plan meaningfully reduce the negative visual effects on the small number of affected residential properties around the site. The planting would also have biodiversity benefits.

The landscape measures that form part of the overall development will significantly improve the quality of the landscape character of this area. The significant amount of native woodland, scrub and grassland habitats to be created would have a positive impact on the landscape character of this area and the wider environment. In the long term the level of this impact will continue to reduce further as the habitats establish and become integrated into the surrounding landscape.

7.8 Lighting

The internal access routes will be lined with street lighting. Bat-sensitive lighting techniques will be incorporated into the lighting plan, which will avoid or minimise any potential impacts of lighting on bats for the operational phase.

7.9 Drainage & Water Services

We refer the Planning Authority to the enclosed Drainage & Water Services Report prepared by CSEA, Consulting Engineers.

The proposed development will be connected to a SUDS facility to provide attenuation in compliance with the requirements of the Greater Dublin Area Strategic Drainage Study (GDSDS).

EirGrid Compound

A surface water drainage network separate from the adjacent Customer Compound will be formed via a solid walled pipe system connected to a Class 1 full retention interceptor prior to discharge to the attenuation basin which will provide the final treatment and attenuation from the compound.

It is proposed that the interceptor, installed downstream of the compound surface water network and upstream of the attenuation basin, will be a Class 1 full retention interceptor designed to accept and treat the full design flow delivered in the surface water drainage system.

A system of road gullies, and linear drainage channels will direct the surface water run-off from the impermeable areas into the surface water system with manholes and catch pits located on all drains to minimise silt transfer and intercept contamination.

During oiling of transformers, surface water drainage from the road area can be closed off after the interceptor to prevent a catastrophic large volume leak of oil reaching the SUDS treatment.

Customer Compound

The proposed surface water drainage will be similar to that proposed for the EirGrid compound above with a series of gullies and linear drainage channels collecting surface water run-off from the compound access road and yard connecting into a solid walled pipe system.

Drainage will discharge into a full retention Class 1 interceptor prior to discharge into the attenuation basin for final treatment and attenuation.

Transformer bases will provide for a leak retention of a minimum of 110% of the stored oil in the transformer. Surface water from each will be pumped from the sump via an Aquasentry pump and monitoring system which will shut down and alarm in the event of oil contamination. Surface water from the normal delivery of the pumps will discharge to the surface water pipes and Class1 interceptor system to prevent contamination.

A surface water ditch diversion pipe is shown within the Customer Compound. This diversion will be constructed under the works proposed.

Water Supply

A water supply will be provided from the proposed Data Centre's private water supply. The applicant made a pre-connection enquiry to Irish Water regarding the viability of the overall development connecting to the Irish Water Network. Irish Water advised that subject to a valid connection agreement being put in place, the proposed connection to the Irish Water Network can be facilitated. Correspondence between Irish Water and the applicant took place via email under the connection reference no. CDS19008464.

Peak water demand of 400 litres per day during an 8-hour occupied shift has been allowed. Due to the gaps in use from the supply, potable water will be imported bottled water.

Foul Water

The pipe network is designed in accordance with the requirement of table 6.4 of the Greater Dublin Strategic Drainage Study.

The proposed foul water network collects foul water from the toilet, shower, and mess facilities within the GIS building. The substation building is an unmanned facility with visiting maintenance crews. This is generally a two-man crew visiting the site for 2 days per month. As a result, this development is not covered by the types of activities listed in Appendix D of the Irish Water Code of Practice for Wastewater Infrastructure. Accordingly, proposed wastewater flows have been based on the assumed usage rates of the appliances in the building.

The proposed foul water flows from the development are estimated to be a maximum of 400 litres per day during occupation with a peak discharge of 1.6 litres per second during an 8 hour shift.

7.10 Flood Risk Assessment

We refer the Planning Authority to the enclosed Flood Risk Assessment prepared by CSEA. This Assessment concludes that there is no history of flood on the site. The lands are within Flood Zone C and therefore, in accordance with the national Guidelines, a Justification Test is not required and the development is appropriate for the subject site.

The FRA notes that an existing ditch which is located on the western boundary will be replaced by a new 900mm pipe. This culvert has been designed in accordance with OPW Guidelines and has been assessed for the 1 in 1000 year event.

7.11 Noise & Vibration

We refer the Planning Authority to Chapter 10 of the EIAR and note the following in relation to noise and vibration impacts arising from the proposed development.

During the construction phase of the proposed development there will be some impact on nearby noise sensitive receptors due to noise emissions from site traffic and other activities.

The application of noise limits and hours of operation along with the implementation of appropriate noise control measures, detailed in chapter 10 Noise and Vibration, will ensure that noise impact will be kept to a minimum. It is noted that all construction noise impacts will be slight, negative and short term in nature. As the development progresses past initial ground works it is noted that noise impact will reduce from slight to not significant.

Noise modelling during the operational phase has been presented considering the operation of a proposed data centre development to the east of the subject site.

7.12 Air Quality

We refer to Chapter 9 of the EIAR and note the following in relation to impacts on air quality arising from the proposed development.

The greatest potential impact on air quality during the construction phase of the proposed development is from construction dust emissions and the potential for nuisance dust. While construction dust tends to be deposited within 350m of a construction site, the majority of the deposition occurs within the first 50m. The extent of any dust generation depends on the nature of the dust (soils, peat, sands, gravels, silts etc.) and the nature of the construction activity. In addition, the potential for dust dispersion and deposition depends on local meteorological factors such as rainfall, wind speed and wind direction.

The sensitivity of the area is combined with the dust emission magnitude for each dust generating activity to define the risk of dust impacts in the absence of mitigation. As outlined in Chapter 9- Air Quality and Climate, this results in an overall negligible risk of dust soiling impacts and human health impacts as a result of the proposed construction activities.

During operation, cables will be buried underground and therefore there will be no emissions to atmosphere. There is the potential for maintenance vehicles accessing the substation site to result in emissions of NO₂, PM₁₀/PM_{2.5} and CO₂. However, due to the infrequent nature of maintenance activities and the low number of vehicles involved emissions are not predicted to be significant. A detailed air quality and climate assessment was scoped out for the operational stage of the development as per the UK DMRB screening criteria. Operational stage impacts to air quality and climate are predicted to be imperceptible, neutral and long-term.

As the development is facilitative infrastructure for a data centre (FW21A/0151) the indirect CO₂ emissions associated with the electricity to operate the data storage facility development were considered and determined within the EIAR for the development, and have been found to have no significant impact in relation to climate. We refer the Board to Chapter 10 of the associated EIAR for more information.

7.13 Waste Management

A project specific outline C&D WMP has been prepared in line with the requirements of the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects guidance document issued by the Department of Environment, Heritage and Local Government (DoEHLG).

The following mitigation measures will be implemented:

- Building materials will be chosen with an aim to ‘design out waste’;
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery – it is anticipated that the following waste types, at a minimum, will be segregated:
 - Concrete rubble (including ceramics, tiles and bricks);
 - Plasterboard;
 - Metals;
 - Glass; and
 - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks/bricks) and any suitable construction materials shall be re-used on-site, where possible;
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site;

- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably banded areas, where required);
- A waste manager will be appointed by the main contractor(s) to ensure effective management of waste during the excavation and construction works;
- All construction staff will be provided with training regarding the waste management procedures;
- All waste leaving site will be reused, recycled or recovered where possible to avoid material designated for disposal;
- All waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licenced facilities; and
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

These mitigation measures will ensure that the waste arising from the construction phase of the development is dealt with to ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will encourage sustainable consumption of resources.

The removal of materials (excavated soils) from the site will primarily be undertaken during early civil works and 220 kV building substructure construction phase. It is at this stage that the highest periods of material movement off site are likely to occur. All trucks will be required to have tarpaulin to cover the transported material as it is being hauled off or brought to site.

7.14 Environmental Impact Assessment Report

An Environmental Impact Assessment Report is prepared for the overall development proposal and a copy of these documents is also enclosed herewith this planning application.

8 NATIONAL PLANNING POLICY CONTEXT

The proposal will provide a new 220kV Substation and associated electrical infrastructure that will enable the wider site to be developed in the most efficient manner, and maximise the potential of the wider site for development as a data centre.

The lands are subject to national, regional, sub-regional, county/local planning policy.

8.1 Government Statement on The Role of Data Centres in Ireland's Enterprise Strategy (2018)

The Department of Business, Enterprise and Innovation released a statement in 2018 on the Role of Data Centres in Ireland in which it sets out the role and significance of data centres in Ireland's wider enterprise policy objectives.

The statement outlines the presence of data centres in Ireland has raised the country's visibility internationally as a technology-rich, innovative economy. The statement goes on to state that data centres directly contribute to job creation and generate significant added economic benefit by providing a range of services to other firms.

A significant proportion of existing, permitted and proposed data centres are located in the Dublin Region. The statement notes that *"The potential cost benefits which could be provided by data centres are dependent on location, existing network capacity and the infrastructure required to supply the site."*

The statement goes on to note *"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 Covid-19 pandemic has highlighted the urgent need for improvements in ICT and the roll-out of high speed broadband nationwide. Many bricks and mortar businesses are already trading and conducting business online to safeguard and continue daily operations. Across all sectors, work environments will be permanently altered with employees expected to continue working from home following the pandemic. The need for high quality data centres is therefore essential to the recovery of the Country and economy post-Covid-19.

8.2 Project Ireland - National Planning Framework (2040)

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of our country out to the year 2040.

The NPF sets out that the Eastern and Midland part of Ireland will, by 2040, be a Region of around 2.85 million people, at least half a million more than today.

Compliance with Key National Policy Objectives

The proposed development will facilitate the development of a data centre (Planning Reg. Ref: FW21A/0151). The following National Policy Objectives are considered to apply to the site.

- **National Policy Objective 55-**
"Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050."
- **National Policy Objective 64-**

“Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient buildings and homes, heating systems with zero local emissions, green infrastructure planning and innovative design solutions.”

Under the National Strategic Outcome 5 – A Strong Economy Supported by Enterprise, Innovation and Skills, Ireland is being prompted as a suitable international destination for ICT infrastructure.

“Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. This sector underpins Ireland’s international position as a location for ICT and creates added benefits in relation to establishing a threshold of demand for sustained development of renewable energy sources. There is also greater scope to recycle waste heat from data centres for productive use, which may be off-site.”

It is our considered view that the current proposal complies with and exceeds the vision of the National Planning Framework on the following basis:

- The proposal utilises the existing infrastructure and site services provided by Huntstown Power Station and associated AIS, making it the most efficient use for the site. The compact layout of the substation, transformers, switchgear and electrical equipment, optimises the site’s location between the power station and proposed data centre.
- The overall development is appropriately located in West Dublin with excellent connectivity to the N2, N3 and M50.
- The proposal will contribute to the emerging digital infrastructure in Fingal County Council that helps to support a strong Irish economy through its enterprise, skills and innovation sectors.
- The proposal will continue to maintain high quality international connectivity, that Ireland is quickly becoming renowned for. The overall development will provide a mechanism which will aim to secure additional renewable energy generation.
The NPF is clear that it is favourably disposed to the location of ICT infrastructure in Ireland.

Having considered the above, it is submitted that the current proposal will deliver on key objectives contained within the NPF.

8.3 Regional Spatial and Economic Strategy (2019-2031)

The *Regional Spatial and Economic Strategy for Eastern and Midland Regional Assembly (RSES)* has recently been published and adopted.

The RSES provides a:

- Spatial Strategy - To manage future growth and ensure the creation of healthy and attractive places to live, work, study, visit and invest in.
- Economic Strategy - That builds on our strengths to sustain a strong economy and support the creation of quality jobs that ensure a good living standard for all.
- Metropolitan Strategy - To ensure a supply of strategic development areas for the sustainable growth and continued success and competitiveness of the Dublin Metropolitan Area.

- Investment Framework - To prioritise the delivery of key enabling infrastructure and services by government and state agencies.
- Climate Action Strategy - To accelerate climate action, ensure a clean and healthy environment and to promote sustainable transport and strategic green infrastructure.

Key RSES Provisions

Finglas/Fingal is identified as falling within the Dublin Region of the RSES.
The Growth Strategy for the Eastern and Midlands Region is to:

- Support the continued growth of Dublin as our national economic engine.
- Deliver sustainable growth to the Metropolitan area.
- Target growth to regional growth centres of Athlone, Drogheda and Dundalk
- Support vibrant rural areas with a network of towns and villages
- Facilitate the collaboration and growth of the Dublin – Belfast Economic Corridor
- Embed a network of Key Towns through the region to deliver sustainable regional development
- Support the transition to a low carbon, climate resilient and environmentally sustainable region.

The proposed development would contribute towards the achievement of Policy Objectives relating to the delivery of both electricity and ICT infrastructure.

Electricity Infrastructure

The proposed development has the potential to strengthen the electricity transmission in the area, and therefore it is considered that the below section of the RSES are of relevance: Section 5.5 ‘Enabling Infrastructure’ of the RSES states the following in relation to Energy:

“Development of the energy distribution and transmission network in the Region will enable distribution of more renewable sources of energy to facilitate future energy demand in strategic development areas along with the roll-out of the Smart Grids and Smart Cities Action Plan enabling new connections, grid balancing, energy management and micro grid development, see also Chapter 10 Infrastructure for more information on Infrastructure and Energy.”

Having regard to the nature of the proposed development, it is considered that the development would contribute to the achievement of the following Regional Policy Objectives:

- **RPO 10.20:** *“Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This Includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.”*
- **RPO 10.22:** *“Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and*

transmission/ distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people.”

- **RPO 10.23:** *“Support EirGrid’s Implementation Plan 2017 – 2022 and Transmission Development Plan (TDP) 2016 and any subsequent plans prepared during the lifetime of the RSES that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process, in particular: Support the installation of additional transformer capacity and increased circuit capacity to meet Dublin demand growth to strengthen the network for all electricity users and improve the security and quality of supply.”*

ICT Infrastructure

Given that the proposed development will also facilitate the development of a data centre (Reg. Ref: FW21A/0151), it is considered that the below sections of the RSES are of relevance.

One of the Guiding Principles for Investment Prioritisation in Placemaking for Enterprise Development is to *“Align to national strategy and approach for data centres – right location for use and energy demand.”*

it is considered that the development would contribute to the achievement of the following Regional Policy Objectives relating to ICT development:

RPO 8.25 of the RSES states that 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.

It is submitted that the current proposal and wider development site is supportive of the growth strategy and enables growth of the metropolitan region of the RSES. Specifically, the development has the potential to strengthen the electricity transmission in the area.

9 LOCAL PLANNING POLICY CONTEXT

9.1 Fingal County Development 2017-2023

The Fingal County Development Plan 2017-2023 sets out the planning policy context for future development in the County. The Plan details the land use and development objectives, development control standards and policies and objectives for the protection of the built and natural environment of the County. It is the most relevant document pertaining to the future development of the subject lands.

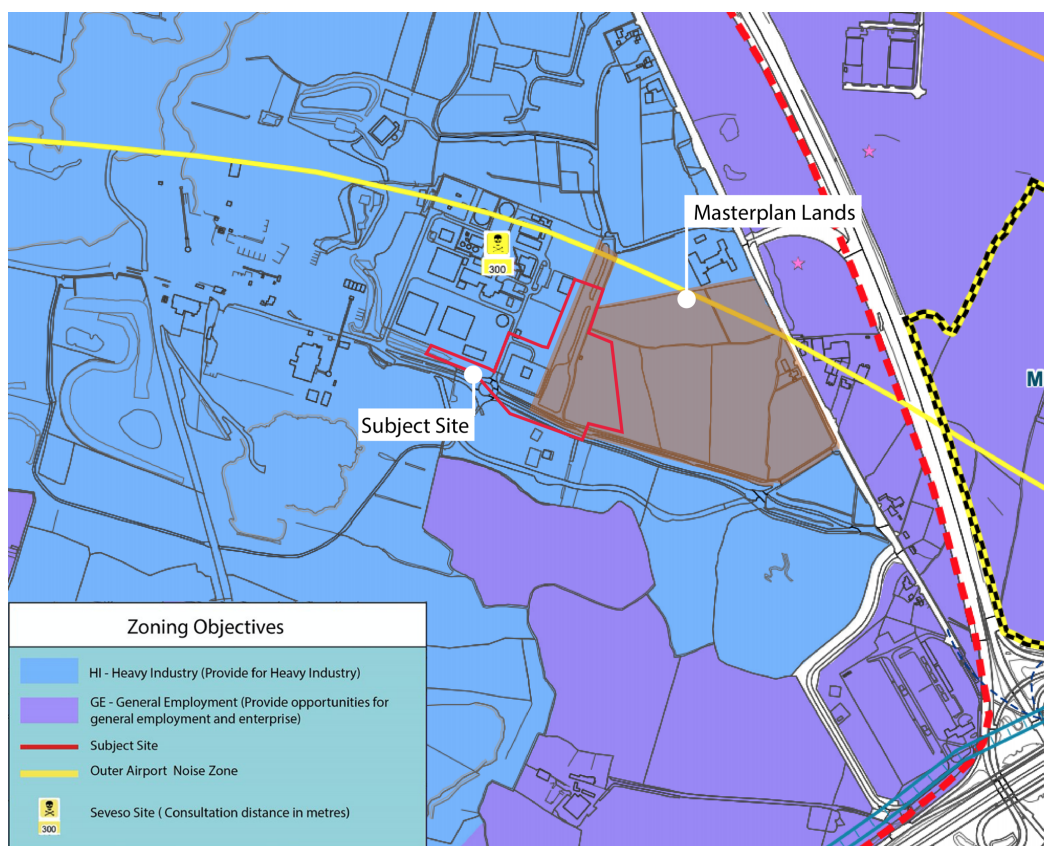


Figure 10 Zoning Map

The subject site and is zoned HI Heavy Industry under the current County Development Plan. The objective is “Provide for heavy industry”.

The vision for Heavy Industry is as follows;

‘Facilitate opportunities for industrial uses, activities and processes which may give rise to land use conflict if located within other zonings. Such uses, activities and processes would be likely to produce adverse impacts, for example by way of noise, dust or visual impacts. HI areas provide suitable and accessible locations specifically for heavy industry and shall be reserved solely for such uses.’

The following uses are considered to be permitted in principle;

Permitted in Principle		
Abattoir	Concrete/Asphalt	Extractive Industry/Quarrying
Fuel Depot/Fuel Storage	Heavy Vehicle Park	Industry - High Impact
Office Ancillary to Permitted Use	Open Space	Plant Storage
Restaurant/Café ⁵	Retail - Local < 150 sqm nfa ⁵	Sustainable Energy Installation
Telecommunications Structures	Utility Installations	Waste Disposal and Recovery Facility (High Impact)

Figure 11 Permissible Uses – HI Zoning

The following uses are not permitted;

Not Permitted		
Aerodrome/Airfield	Agricultural Buildings	Agricultural Farm Supplies
Agricultural Machinery Sales and/or Maintenance	Agri-Tourism	Air Transport Infrastructure
Amusement Arcade	Bed and Breakfast	Betting Office
Boarding Kennels	Builders Provider/Yard	Burial Grounds
Car Hire Holding Area	Caravan Park – Holiday	Caravan Park – Residential
Cargo Yards	Carpark - Non-Ancillary	Casual Trading
Childcare Facilities	Civic Waste Facility	Community Facility
Conference Centre	Cultural Facility	Dancehall/Nightclub
Education	Enterprise Centre	Exhibition Centre
Fast Food Outlet/Take-Away	Farm Shop	Food, Drink and Flower Preparation/Processing
Funeral Home/Mortuary	Garden Centre	General Aviation
Golf Course	Guest House	Health Centre
Health Practitioner	High Technology Manufacturing	Holiday Home/Apartments
Home-Based Economic Activity	Hospital	Hotel
Industry – General	Industry – Light	Logistics
Office ≤100sqm	Office >100sqm and <1,000sqm	Office ≥1,000sqm
Park and Ride Facilities	Petrol Station	Place of Worship
Public House	Public Transport Station	Recreational Facility/Sports Club
Residential	Residential Care Home/ Retirement Home	Residential Institution
Retail - Convenience ≤ 500 sqm nfa	Retail - Comparison ≤ 500 sqm nfa	Retail - Comparison >500sqm nfa
Retail - Supermarket ≤ 2,500 sqm nfa	Retail - Superstore > 2,500 sqm nfa	Retail - Hypermarket > 5,000 sqm nfa
Retail - Factory Outlet Centre	Retail Warehouse	Retail - Warehouse Club
Retirement Village	Sheltered Accommodation	Taxi Office

Figure 12 Non-Permissible Uses – HI Zoning

We refer the Board to Section 5 of this report which outlines compliance with the zoning objective for the site and the suitability of the chosen location for the proposed development.

Compliance and Consistency with the Policies and Objectives of the Development Plan

The Proposed Development is supported by and is consistent with a number of policies and objectives set out in the Fingal County Development Plan, including:

Objective EN02: “Support and encourage pilot schemes which promote innovative ways to incorporate energy efficiency.”

Objective EN06: “Encourage and facilitate the development of renewable energy sources, optimising opportunities for the incorporation of renewable energy in large scale commercial and residential development.”

Objective EN22: “Facilitate energy infrastructure provision at suitable locations, so as to provide for the further physical and economic development of Fingal.”

Objective IT01: “Promote and facilitate the sustainable delivery of a high quality ICT infrastructure network throughout the County taking account of the need to protect the

countryside and the urban environment together with seeking to achieve balanced social and economic development.”

Objective IT02: “Require appropriate modern information technology, including a carrier neutral, multiduct infrastructure servicing every unit, to be incorporated into the overall design and layout of all new developments in Fingal, where feasible.”

Objective ED27: “Promote the continued growth of the ICT sector in Fingal by creating high quality built environments offering a range of building sizes, types and formats, supported by the targeted provision of necessary infrastructure.”

Objective ED28: “Engage and collaborate with key stakeholders, relevant agencies, and sectoral representatives to develop the ICT sector in Fingal and to ensure that the economic potential of the sector is secured for the benefit of the local economy, and national economy.”

Objective ED109: “Ensure that a range of industrial and/ or manufacturing units, in terms of size, scale, format and arrangements, is provided for to adequately respond to enterprise requirements in different economic sectors.”

Objective ED110: “Proactively respond to the needs of enterprises undertaking pharmaceutical, data centre, food production and logistics activities that require bespoke building facilities to meet their specific manufacturing requirements.

Objective ED111: “Ensure that proposals for industrial and/ or manufacturing buildings demonstrate regard to the relevant development standards.”

Objective ED112 – “Encourage better integration of industrial areas into the urban fabric of the County, resolving tensions between uses and enhancing the security and permeability of industrial areas for pedestrians and cyclists as well as businesses.”

As the proposed substation development is facilitative infrastructure to support the future development of the wider site as a data centre, supporting policies covering the proposed substation development and the overall development of the site as a data centre have been included as planning context.

Although data centres and by associated substations are not defined in any of the zoning objectives identified in the Plan, general planning policy supports the development of data centres.

*‘A demand for industrial and/ or manufacturing units is required by a number of economic sectors including the manufacturing sector, including healthcare and pharmaceutical related activities. Depending on the size of the enterprise, industrial and manufacturing **accommodation in a range of formats, sizes, arrangements and locations can be required.** Indeed, over the current Development Plan period demand is likely to emanate from the **data centre**, biopharmaceutical, food production and logistics activities that require specific facilities to meet their exacting requirements*

The County Development Plan allows for a proactive approach to data centres and associated development as per the above objective. One of the bespoke building requirements for data centres is the need to have onsite dispatchable generation in order to ensure that they have access to the electrical power needed to operate.

Furthermore, developing a data centre and substation at this location would also derive the benefits and maximise upon existing infrastructure, which is supported by the County Development Plan.

The proposed substation can be viewed as less intrusive than other Heavy Industries listed in the County Development Plan and is therefore an appropriate use for the subject site which is located adjacent to a charitable dog sheltering facility.

Chapter 6 of the Plan entitled “Industrial and/or Manufacturing Units” states that data centres among other uses including bio-pharmaceutical, food production and logistics activities require specific facilities to meet their exacting requirements. The Plan goes on to state: *“The economic sectors outlined above have varying building requirements that the Development Plan needs to be able to anticipate and respond to.”*

The proposal which connects to the existing underground transmission lines serving Corduff and Finglas substations promotes the most efficient and sustainable use of the site and promoting the continued growth of the ICT sector in Fingal by creating high quality built environments offering a range of building sizes, types and formats, supported by the targeted provision of necessary infrastructure as per objective ED 27 of the County Development Plan.

The contemporary design of the substation is in keeping with the form and design of industrial and commercial development in the wider area. We reiterate that the proposal has been carefully designed with specialist input from EirGrid and ESB Networks from conception through to lodgement of this planning application.

In accordance with the development management standards set out in Chapter 12 of the County Plan, we note the following:

Access to the substation is facilitated from the existing Quarry Road. The overall site is subdivided into two compounds consisting ESB and Customer Compound.

9 no. vehicular spaces are provided on site with adequate turning areas to allow for the safe manoeuvre in and out of the site.

It is envisaged that ESB Networks personnel will maintain the GIS building as required. They will be responsible for the upkeep of the building and removal of waste, as necessary.

The proposal is set back from the internal estate road in excess of 7m, as set out in the County Plan. A landscaped buffer area comprising a green palisade fence, gravel strip, grass verge and shrub/tree planting is proposed and permitted around the public facing elevations of the substation. No signage is proposed as part of this development.

The substation is contemporary in both form and design. The horizontally laid composite panel cladding will be finished in grey colour. This attractive and durable finish complements the light grey industrial buildings seen in the wider area.

The orientation of the substation with the narrow southern elevation facing the Quarry Road reduces the perceived scale of development. The shrub/tree planting to the south will assist in visually ameliorating the development with the wider area.

A high level of safety and security is achieved through the provision of a 2.4m high palisade fence fixed to a concrete plinth base.

The substation is served by water supply, foul water drainage and surface water/storage drainage systems connecting to existing systems.

Storm water will drain from the roof and paved areas to a petrol interceptor before being attenuated and discharged to the existing nearby ditch.

9.1.1 Dublin Airport

Having regard to the proximity of the site to Dublin Airport, a cumulative aeronautical assessment has been undertaken in relation to the overall height of the proposed structures on site. The report concludes that the proposal will have no impact on flight procedures.

We invite a suitably worded condition relating to crane usage during construction.

Similarly, a glint and glare assessment has been undertaken in relation to the proposed photovoltaic panels at roof level and their potential impact on aircraft travelling to and from the airport. It is noted that all pv panels are appropriately orientated to minimise glare to aircraft travelling overhead. The report concludes that the development will not adversely impact the daily operations of Dublin airport.

9.1.2 Outer Airport Noise Zone

The subject site is located along the boundary of the Outer Airport Noise Zone and complies with objective DA07 states that:

“Strictly control inappropriate development and require noise insulation where appropriate within the Outer Noise Zone, and actively resist new provision for residential development and other noise sensitive uses within the Inner Noise Zone, as shown on the Development Plan maps, while recognising the housing needs of established families farming in the zone. To accept that time based operational restrictions on usage of second runway are not unreasonable to minimize the adverse impact of noise on existing housing within the inner and outer noise zone.”

The proposed use is wholly appropriate having regard to its location along the boundary of the Outer Airport Noise Zone. Mechanical plant is screened to attenuate noise a more sensitive locations to the east and north of the site, in accordance with Objective DA07 of the County Plan.

9.1.3 Seveso Site

Directive 2012/18/EU (The Seveso III Directive) provides that appropriate consultation distances must be put in place so as to ensure that before decisions are taken, technical advice is available to Planning Authorities in respect of relevant establishments. The Health and Safety Authority provides such advice, where appropriate, in respect of planning applications within a certain distance of the perimeter of these sites.

The subject site is located directly adjacent to the Huntstown Power Station, Huntstown Quarry, Finglas, D11 Seveso site. This is a lower tier Seveso Site with a consultation distance of 300m.

The following Development Plan objectives relate to the development management of Seveso Sites:

Objective DMS180: *“Have regard to the provision of the ‘Major Accident Directive’ (Seveso III) (European Council Directive 2012/18/EU) and impose restrictions in consultation with the HSA, on developments abutting or within proximity of a Seveso site. The extent of restrictions on development will be dependent on the type of risk present and the quantity and form of the dangerous substance present or likely to be present.”*

Objective DMS183: “In areas where Seveso sites exist in appropriate locations with low population densities, ensure that proposed uses in adjacent sites do not compromise the potential for expansion of the existing Seveso use and in particular the exclusion of developments with the potential to attract large numbers of the public.”

A Land-Use Planning report has been prepared by AWN Consulting and accompanies this planning application. This report examines hazards associated with Fuel Oil, LPG, and Natural gas installations on site.

The cumulative individual risk contours for Huntstown Power Station corresponding to the boundary of the inner, middle and outer land use planning zones are illustrated as follows.

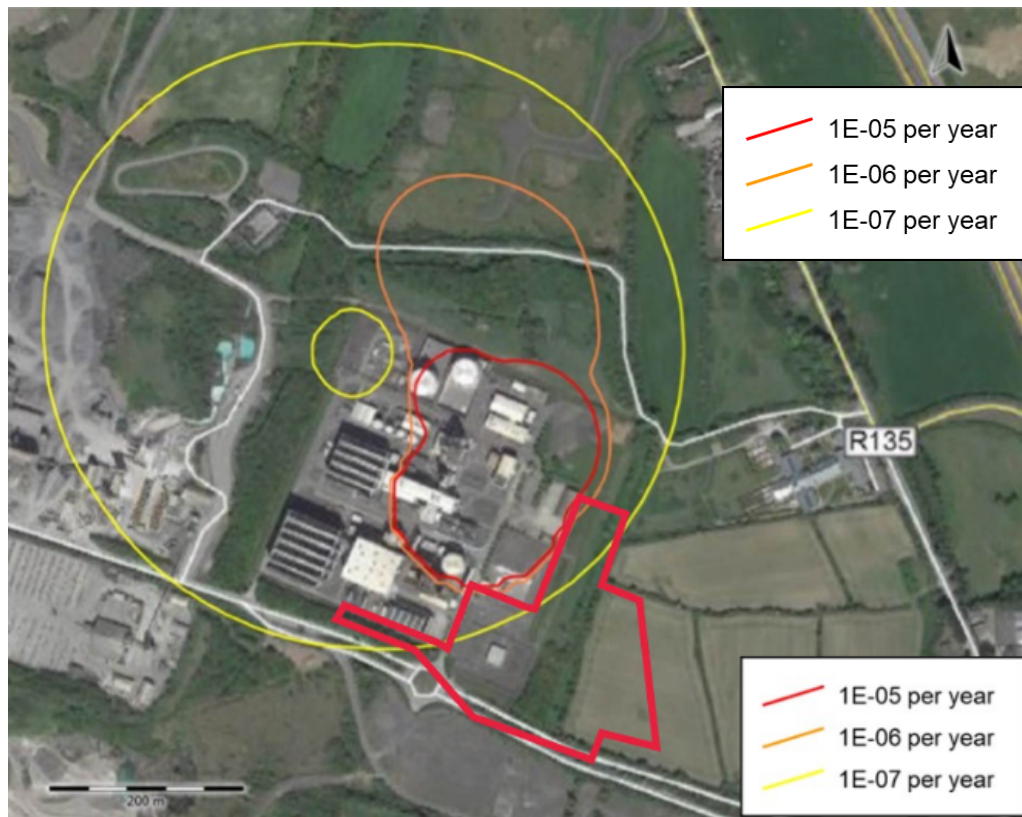


Figure 13 - Land-Use Planning Zones

It is concluded that the proposed substation is located partially within the LUP Outer Zone (1E-07) of Huntstown Power Station. This location is considered appropriate in this case due to the substation building being an unmanned facility with visiting maintenance crews (generally a 2 person crew visiting the site for 2 days per month). Therefore the level of individual risk at the proposed development is acceptable.

9.1.4 Design Guidelines for Business Parks and Industrial Areas

The proposed development was designed with regard to the Design Guidelines for Business Parks and Industrial Areas.

Objective DMS103 states that it is a Council’s objective to “ensure that the design and siting of any new Business Parks and Industrial Areas conforms to the principles of Design Guidelines as outlined in Table 12.7.”

The proposal is compliant with Objective DMS103 as follows:

Access & Circulation

- The overall site layout has been developed to allow safe operational and fire tender access to all buildings.
- The main vehicular entrance to the substation will be via the Huntstown Power Plant.
- There will be a secondary entrance to the south of the site that will provide emergency access to the site via the Roadstone Huntstown Quarry Road. It will also be possible to access the substation site via the proposed Data Centres internal access road network.

Pedestrian/Cycle Connection

- As the substation is an unmanned facility there are limited pedestrian connections proposed, with footpaths provided solely as access routes for maintenance staff. No cycle infrastructure is proposed as part of the development.

Permeability

- Internal permeability is promoted among on-site staff. However, given the requirement for security of the wider proposed Data Centre facilities a permeable development with public interaction is not appropriate or encouraged in this instance.

Lighting

- Site lighting is provided along the internal access roads for safety and security purposes.

Setbacks

- The southern customer and EirGrid fence enclosing the substation building is set back approximately 30 metres from the Roadstone Quarry access road to the south of the site.
- The substation building is set back approximately 21 metres from the site boundary at its closest point to the west, approximately 11 metres from the site boundary at its closest point to the north and approximately 7.5 metres from the site boundary at its closest point to the east.
- The southern and western boundaries of the site are considered the most sensitive boundaries having regard to the existing industrial uses. The proposed setbacks are considered appropriate to mitigate any adverse impacts associated with the development site or surrounding activities.

Signage

- Signage is not proposed as part of this planning application.

Public Art

- Public Art is not proposed as part of this planning application.
- The site will not be accessible to members of the public for operational and security concerns. As such, the Applicant welcomes a development contribution in lieu of a piece of public art, by way of condition.
- The high quality architectural approach to key elevations makes a positive contribution to the visual amenity of the overall site.

Sustainability

- SUDS principles have been employed in the drainage design.

Building Orientation & Road Frontage

- The substation building is orientated from north east to south west. The southern gable of the substation is set back and separated from the Quarry Road by electrical equipment, firewalls and boundary treatments.
- The MV buildings are located to the east of the subject site.

Massing and Form

- The primary building on the substation site will be the 2 storey GIS building containing the 220 kV gas insulated switchgear room.
- Due to the prominent nature of the development with a direct boundary with Huntstown Power Station to the West and Roadstone Quarry access road to the south the appearance of the proposed buildings and their elevational treatment is defined by high quality design and finishes.

Appearance/Façade

- The primary building on the substation site will be the two storey GIS building containing the 220kV gas insulated switchgear room. The building will also contain critical support functions such as control room, battery room, emergency generator room, workshop as well as welfare facilities for maintenance and operations staff. The building size and layout is in accordance with EirGrid standard requirements.
- The GIS building construction technology will be a bespoke structural steel frame on reinforced concrete foundations with an insulated roof and proprietary insulated metal wall cladding. The main parapet will be at ca. 17.00m from floor ground level, which is a lower height than the proposed data centre buildings.
- The wall cladding exterior colour will match the darker colour of the lower façade of the proposed adjacent data centre facility.

Roofscape

- The design includes a roof installation of 3m high lightning protection finials at roof level.

Utility, Electrical & Mechanical Equipment

- Ancillary buildings adjacent to the substation building include MVswitchgear/control rooms and will be clad with a prefabricated sheet steel finish.
- The selected colour will be decided during the detailed design stage to match the main 220kV substation building and ensure continuity of finishes throughout the facility.

Building Entrances

- The 220kV GIS Substation building features 8no. access/egress points at ground floor level with access points located along each side of the proposed structure. The proposal also features a hoist area to allow equipment to be loaded at ground floor level for transportation to the first floor.

Parking

- Car parking provision to cater for the maintenance and operations staff will be 5 spaces for the EirGrid side of the substation compound and 4 spaces for the Customer side of the substation compound. Disabled parking spaces are not proposed due to the occupancy and usage of the substation. Electric vehicle charging ports are provided as part of the adjacent power station facility.

Landscaping Boundary Treatment

- The main landscaping features proposed are visual screening belts consisting of a triple staggered line of native trees which will be 4.5 to 5 metres tall on day 1 of operations and grow up to 16 metres.
- Existing Hedgerows to the south of the development site are to be retained and enhanced to screen the development

9.1.5 Parking

Car parking provision to cater for the maintenance and operations staff will be 5 spaces for the EirGrid side of the substation compound and 4 spaces for the Customer side of the substation compound. Disabled parking spaces and electric car charging ports are not proposed due to the occupancy and usage of the substation, it is an unmanned facility with visiting maintenance crews (generally a two person crew visiting for 2 days per month).

9.1.6 Sustainability and Energy Strategy

The proposed development is associated with the development of a data centre (Reg. Ref: FW21A/0151). This overall development underlines a commitment by the Applicant to the long term occupancy of the site at Huntstown. The proposal to develop the site will enhance the zoning of the current Development Plan while contributing to the overall sustainability of the site.

As noted previously, the Applicant, in their day-to-day operations, has regard for Ireland's Climate targets of achieving 70% of electricity generated from renewable sources by 2030. The Applicant is also cognisant of the co-locational benefits with the two gas fired power plants adjoining the site.

The Applicant is committed to running its business in the most environmentally friendly way possible and has developed an approach which will (i) use existing infrastructure; (ii) provide a mechanism which will aim to secure additional renewable energy generation.

<p>USE OF EXISTING INFRASTRUCTURE</p>	<p>The Proposed Development has been strategically located to adjoin the Huntstown Power Station¹ which can be considered as 'on-site dispatchable generation' under the terms of the ESB Policy.</p> <p>Firstly, this 'co-location' approach will avoid the requirement to produce new on-site dispatchable power generation, thus avoiding the potential introduction of additional fossil fuels and associated GHG emissions. The utilisation of existing infrastructure negates the need for an additional 150MW on site, and the associated embodied carbon associated with the construction of new infrastructure.</p> <p>Secondly, its proximity to Huntstown Power Station and the future development of the associated 220kV GIS meshed substation will result in a decrease in energy losses associated with the transmission of energy (i.e. every additional meter that electricity flows through a cable it loses power and therefore efficiency).</p>
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	<p>The development is also adjacent to the Huntstown Bioenergy plant and feasibility studies will be undertaken to understand the suitability of any excess heat generated from the Data Centre being used in the Anaerobic Digestion process at the neighbouring site, hence making both developments more efficient.</p>
RENEWABLE ENERGY CONTRIBUTION AND GENERATION	<p>Working alongside the proposed development the Applicant will obligate the facility end user, to enter into arrangements which are capable of underpinning new renewable energy generation calculated to offset the energy consumed by the proposed development from the electricity grid. These arrangements will:</p> <ul style="list-style-type: none"> • Be in the form of Corporate Power Purchase Agreements between the Applicant's group and the facility end user; • Provide for the establishment of new renewable energy generation projects by the applicant's group, that will not be supported by government or consumer subsidies – these new renewable energy projects will be: <ul style="list-style-type: none"> ○ Located throughout Ireland; ○ Phased over the expected ramp up of the energy demand of the proposed development; and ○ In total, are calculated to exceed the expected annual volume of energy consumed on site by the proposed development; <p>Through these obligations, it is the goal of the Applicant that for every unit of energy consumed by the overall data centre development, a unit of new renewable energy generation would be despatched to the wider electricity system to off-set it, thus delivering the objective of operating the proposed development on a net zero carbon basis that would not impact Ireland's overall climate targets. Any associated additional renewable energy supply would also increase energy security through indigenous energy sources.</p> <p>The proposed development also includes 640sqm of roof mounted solar arrays that will assist with on-site power use within the office areas. In addition, low/zero carbon technologies such as low energy lighting, sensor lighting controls and variable speed pumps are proposed to be included in the detailed design and are set out in further detail in the Architectural Design Statement and Energy Statement.</p>

Other considerations:

In addition to the above points relating to the overall development, the proposed development of the substation has incorporated highly efficient technologies and methodologies allowing for a high degree of sustainability. Such measures include:

- The protection and enhancement of landscape and ecology will be of continuing benefit to the area. Substantial perimeter landscaping and permeable boundary fencing will provide an effective corridor for wildlife around the site, whilst providing a green buffer to the development. The berming and planting will enhance the visual amenity of the site at its interface with the public road.
- Waste management during and post-construction will actively control the generation, recycling and disposal of waste material.
- Low/zero carbon technologies such as, low energy lighting, sensor lighting controls, variable speed pumps etc., are proposed to be included in the detailed design.

- Low loss 220kV/MV transformers situated as close as possible to the data centre load to maximise efficiency and minimise electrical losses.

Having regard to the above points, we submit that the proposal fully complies with the following objectives:

- ✦ **Objective EN03** - Consider the adaptability of buildings over time and seek to improve the efficiency of existing building stock and promote energy efficiency and conservation in the design and development of all new buildings in the County.
- ✦ **Objective EN04** - Encourage development proposals that are low carbon, well adapted to the impacts of Climate change and which include energy saving measures and which maximise energy efficiency through siting, layout and design.
- ✦ **Objective EN06** - Encourage and facilitate the development of renewable energy sources, optimising opportunities for the incorporation of renewable energy in large scale commercial and residential development.
- ✦ **Objective EN09** - Require details of the requirements for alternative renewable energy systems, for buildings greater than 1000sq m or residential schemes above 30 units, under SI 243 of 2012 European Communities (Energy Performance of Buildings) to be submitted at pre planning stage for consideration. These should take the form of an Energy Statement or Feasibility Study carried out by qualified and accredited experts.

10 APPROPRIATE ASSESSMENT SCREENING

This application is accompanied by a Stage 1 - Appropriate Assessment Screening Report prepared by The Moore Group.

The application has been screened for appropriate assessment in accordance with the Habitats Directive (92/43/EEC) and Birds Directive (2009/147/EC).

The report explores 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.

Following a desktop data review, an overview of the receiving environment was undertaken. An assessment of the likely significant effects on European Sites was carried out relating to habitat loss and fragmentation, disturbance and displacement impacts, habitat degradation as a result of hydrological/air quality impacts including in combination impacts.

The report summarises and analyses the likely significant effects of the proposal on European Sites.

The report concludes that the significant distance between the proposed development site and any European Sites, and the very weak and indirect ecological pathway is such that the proposal will not result in any likely changes to the European sites that comprise part of the Natura 2000 network in Malahide Estuary.

There are no predicted effects on any European sites given:

- The distance between the Proposed Development and any European Sites, approximately 8.08 km;
- The lack of connectivity between the Proposed Development and any hydrological pathways; there are no watercourses within the Proposed Development boundary and there is no connectivity between the Proposed Development site and any watercourses that lead to the Malahide Estuary;
- The Proposed Development is to be connected to the existing public sewer network for the treatment of wastewater.
- There are no predicted emissions to air, water or the environment during the construction or operational phases that would result in significant effects.

It has been objectively concluded by Moore Group Environmental Services that:

1. The Proposed Development is not directly connected with, or necessary to the conservation management of the European sites considered in this assessment.
2. The Proposed Development is unlikely to either directly or indirectly significantly affect the Qualifying interests or Conservation Objectives of the European sites considered in this assessment.
3. The Proposed Development, alone or in combination with other projects, is not likely to have significant effects on the European sites considered in this assessment in view of their conservation objectives.
4. It is possible to conclude that significant effects can be excluded at the screening stage.

It can be excluded, on the basis of objective information and in the absence of mitigation measures, that the Proposed Development, individually or in combination with other plans or projects, will have a significant effect on a European site.

An appropriate assessment is not, therefore, required.

11 ARCHAEOLOGY

The archaeological, architectural and cultural heritage impact at the site can be summarised as follows:

The eastern portion of the site has been subjected to detailed geophysical survey and archaeological testing, as part of the overall assessment of the area, and no features of archaeological potential were identified. The western portion of the site has been subjected to development in the recent past, such that the risk of sub-surface archaeological features surviving is negligible. No mitigation measures relating to archaeology or architectural heritage are recommended.

As no previously unrecorded features were identified during detailed geophysical survey and archaeological testing and the western and southern portions of the site have been subjected to development in the recent past. The overall impact of the proposed development on the archaeological heritage is deemed to be **neutral** and **not significant**, and **long term**.

12 CONCLUSION

We invite the Planning Authority to grant permission for the development as proposed having regard to the following:

- ✦ The proposed development accords with the requirements of Fingal County Council Development Plan.
- ✦ The rationale for the provision of this development is to support the power demand associated with the proposed data centre which subject to an application to Fingal County Council (Reg Ref: FW21A/0151) and to facilitate the future growth and expansion of the national grid.
- ✦ The proposal makes the most efficient use of serviced lands. The substation will serve the proposed data centre and will contribute to the emerging digital infrastructure of the area that helps to support a strong Irish economy through its enterprise, skills and innovation sectors.
- ✦ The global demand for data storage is growing rapidly. With increasing levels of online activity, data centres are considered essential infrastructure that facilitate safe information storage, management and distribution for businesses and individuals alike. ICT enables a more efficient way of working and learning, facilitating remote access while also reducing the need to travel thus contributing to a more sustainable and efficient environment.
- ✦ Having regard to the transitional nature of the site **combined with** the land use conflict associated with locating the proposed development elsewhere, the proposed use is considered wholly appropriate and in accordance with the ‘HI’ zoning of the site.
- ✦ The concurrent data centre application, if consented, would utilise the existing infrastructure **without** the need to build additional dispatchable thermal generation which would otherwise be the case.
- ✦ The subject location provides the most energy efficient location as it minimises electrical losses that occur when transferring electricity longer distances.
- ✦ The overall development will enable Corporate Power Purchase Agreements between the applicant’s group and the facility end user that will not be supported by government or consumer subsidies. It is the goal of the applicant that for every unit of energy consumed by the data centre, a unit of new renewable energy generation would be despatched to the wider electricity system to off-set it thus delivering the objective of operating the proposed development on a net zero carbon basis.
- ✦ The overall development maximises the potential of this zoned greenfield site, whilst providing a bespoke building to meet specific requirements, as provided for in Objective ED110 of the Development Plan.
- ✦ The overall development will make a positive contribution to the architectural quality of industrial buildings in the wider Huntstown area. The site can be described as being located in a transitional area bridging the gap between the heavy industry operating at Huntstown Quarry and Huntstown Power Station to the west with the more commercial uses to the east at North Road.

- ✦ The design of the proposed development and the proposed landscaped strategy have taken the characteristics of the site and sensitive receptors of surrounding sites into account.
- ✦ The proposal is a carefully considered project and has been reviewed and revised by a multi-disciplinary design team in conjunction with discussions with EirGrid and ESB Networks. In addition, the proposal has had the benefit of multiple pre-planning consultation meetings with An Bord Pleanála.
- ✦ The 220 kV substation will strengthen and increase the resilience and redundancy of the 220 kV network in North Dublin.
- ✦ As demonstrated in this report and the accompanying drawings and documents submitted as part of this application, we note that the proposal is wholly in accordance with national, regional and local planning policy and guidance.

Having considered all of the above and given the importance of this strategic infrastructure, we trust that the Board will make a favourable decision on the application in due course.