



An  
Bord  
Pleanála

## Inspector's Report

### ABP-318180-23

#### Development

Construction of data centre and associated site works. An Environmental Impact Assessment Report (EIAR) has been submitted to the planning authority with the planning application.

#### Location

Cruiserath Road, Dublin 15.

#### Planning Authority

Fingal County Council

#### Planning Authority Reg. Ref.

FW22A/0308

#### Applicant(s)

Universal Developers LLC.

#### Type of Application

Planning Permission.

#### Planning Authority Decision

Grant Permission

#### Type of Appeal

Third Party

#### Appellant(s)

John Conway & Louth Environmental Group.

Dr. Colin Doyle.

Jerry Mac Evilly.

Dr. Sarah Zimmerman.

**Observer(s)** Mannix Coyne.  
Martin Knox.  
daa PLC.  
Eco Advocacy.  
John Callaghan.

**Date of Site Inspection** 5<sup>th</sup> December 2024.

**Inspector** Elaine Sullivan

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## 1.0 Introduction

- 1.1. The proposed development is essentially an extension to existing operations on a wider development site on Cruiserath Road, in north-west Dublin. The subject site forms part of a masterplan site for a total of six data centres with all supporting and ancillary infrastructure for Amazon Web Services. Planning history for the site is contained in Section
- 1.2.
- 1.3. 5.0 of this report. In summary, planning permission was initially granted for one data centre building, (Building A), in 2018 under **ABP-PL06F.248544**. In 2019 permission was granted under **FW19A/0087** for two more data centres, (Buildings B & C). Supporting infrastructure on the site was granted under **ABP-306834-20** for a 220kV transmission line and a 220kV gas insulated switchgear (GIS) substation, (Building D), and under **ABP-314894-22** for the development of a 220kV Gas Insulated Switchgear (GIS) substation on lands at Kilshane Road, and an underground 220kV transmission line connection to the existing Cruiserath 220kV substation. There are currently three data centre buildings in place and operational within the site.
- 1.4. Existing development on the site is regulated by on Industrial Emissions licence from the EPA, (IE licence **P1182-01**) which allows the applicant to carry out the 'combustion of fuels in installations with a total rated thermal input of 50 MW or more'. The existing licence would require an update to accommodate the proposed development. A grid connection to power the proposed development is in place for the site.
- 1.5. The decision of the Planning Authority has been appealed by five third parties who are generally raising concerns about greenhouse gas emissions, impacts on climate and renewable energy constraints.

## 2.0 Site Location and Description

- 2.1. The site is in north County Dublin, approximately 4km to the north of Blanchardstown Village. It has a stated area of 13.14 hectares (ha) and forms part of a wider development site of 26.14 ha on the western edge of the of the Blanchardstown Industrial Estate. The overall site has been partially developed and is occupied by

Amazon Web Services. Three data centre buildings have been built to date and are operating within the site along with a 220kV gas insulated switchgear (GIS) substation.

- 2.2. It is located to the north of the R121 (Ballycoolin/Cruiserath Road), to the west of the R121 (Cruiserath Road) and to the south of the Cruiserath Drive access road.
- 2.3. There are residential areas to the west and north of the site. The Clayton Hotel is also to the north of the site. Lands to the east of the site are predominantly industrial/commercial. The Bristol-Myers Squibb pharmaceutical plant occupies the adjoining site to the east and is currently undergoing development works. Access to the site is from a roundabout along the R121 to the west. Site boundaries along the R121 are defined by palisade fencing and landscaped berms.

### **3.0 Proposed Development**

- 3.1. A 7-year planning permission is sought for development on a 13.14 ha site comprising, 3 new data storage buildings, referred to as Buildings E, F and G.
- 3.2. Building E would be ancillary to Buildings F and G and would have a gross floor area (GFA) of c. 1,425 square metres and a parapet height of c 13.1m.
- 3.3. Buildings F and G would be the same size and would have a GFA of 21,582 square metres each and would have a parapet height of c. 19.8m.
- 3.4. All three buildings would accommodate data halls, associated electrical and mechanical plant rooms, a loading bay, maintenance and storage space, office administration areas and plant at roof level.
- 3.5. 39 no. diesel-fuelled, emergency generators would be provided for the overall development. Buildings F and G would each have 18 back-up generators with associated stacks to a minimum height of 25m with one house generator for each building with a stack height of 4.6m. Building E would have one back-up generator with an associated stack of 16m in height. The generators would be used for emergencies and would be subject to testing once a week at 25% load for a maximum of 30 minutes each, one generator at a time, sequentially. Maintenance testing would be carried out four times a year at 90% load for one full hour one generator at a time during every three months.

- 3.6. Buildings F and G will share a 40,000 litre 'top-up' tank from which diesel will be piped to double skinned belly tanks at each generator. Building E would have 1 generator with its own double-skinned belly tank with a 9,000-litre capacity.
- 3.7. Ancillary development would include 2 medium-voltage switch gear (MV) buildings, water storage tanks and 3 bin stores, parking for 105 no. cars, 12 no. motorcycle spaces, 56 no. bicycle spaces, drainage works, landscaping and lighting.
- 3.8. Solar PV panels will be installed on building E and F and will consist of 285 PV modules.
- 3.9. The proposed development will be subject to an Industrial Emissions (IE) licence from the EPA. Existing development on the site is regulated by IE licence P1182-01 which allows the applicant to carry out the 'combustion of fuels in installations with a total rated thermal input of 50 MW or more'. The existing licence would require an update to accommodate the proposed development.

## 4.0 Planning Authority Decision

### 4.1. Decision

- 4.1.1. A 7-year planning permission was granted by the Planning Authority, (PA), subject to twenty-four planning conditions. The following conditions are of note.

- 4.1.2. Conditions

The decision of the PA attached 24 no. planning conditions.

- **Condition No. 3** allows for a 7-year planning permission from the date of the grant of permission, as requested in the application.

The following conditions are referenced in the Grounds of Appeal,

- **Condition No. 11** - To minimise the impact on air quality, health and climate, prior to the determination of the number and type of emergency generators on site, prior to commencement of development, the developer shall submit details for the written agreement of the Planning Authority which demonstrate that the lowest possible numbers of generators with the lowest possible

nitrogen oxide emissions have been selected for the site while achieving the required power for the site.

REASON: In the interests of sustainable development.

- **Condition No. 12 -**

a) Testing of generators across the full site shall take place in sequence. At no stage shall testing of generators occur concurrently.

b) Subject to availability, the fuel for use by the generators shall be renewable diesel.

REASON: In the interests of sustainable development.

- **Condition No. 13 -** Prior to the commencement of development, the applicant shall submit for the written agreement of the Planning Authority details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed by the development on site is matched by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy. The Agreement shall comply with the following:

a) The new renewable energy projects shall not be supported by government, consumer or other public subsidies.

b) The new renewable energy projects shall be located in Ireland and full details of these including consent details shall be provided.

c) The new renewable energy projects shall be provided by the applicant's group, that is Amazon.com, Inc.

d) The new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission.

e) The amount of electricity generated by the new renewable energy projects shall be equal to or greater than the electricity requirements of the data centres in operation at any given time.

f) The new renewable energy projects shall be fully operational prior to the commencement of operation of the data centres having regard to the phased nature of the proposed development.

REASON: In the interests of sustainable development.

- **Condition No. 19** - No additional development shall take place above roof parapet level, including air handling equipment, storage tanks, ducts or other external plant, telecommunication aerials, antennas or equipment, unless authorised by a further grant of planning permission.

REASON: To protect the visual amenities of the area.

- 4.1.3. I note to the Board that condition No's **12**, **13** and **19** formed parts of the grounds of appeal. Condition No's 11 and 19 were recommended by the independent consultants engaged by the PA to review the FI response.

## 4.2. Planning Authority Reports

### 4.2.1. Planning Reports

The decision of the Planning Authority (PA) was informed by two reports from the Planning Officer (PO). The first report dated the 17<sup>th</sup> of February 2023 recommended that further information (FI) was requested on four points. A response to further information (RFI) was submitted by the applicant on the 3<sup>rd</sup> of August 2023. The second report of the PO dated the 18<sup>th</sup> of September 2023 assessed the RFI and recommended that planning permission was granted.

The first report included the following,

- National policy supports the provision of ICT infrastructure as set out National Strategic Outcome 5 of the National Planning Framework (NPF), Regional Policy Objective 8.25 of the Eastern and Midlands Regional Spatial and Economic Strategy (RSES) and the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy.
- The principle of permitting data centres on the site has been established on the site and the wider landholding. Permission for the first data centre on the site was granted under **PL06F.248544 / F17A/0025**. This building is to the south of the proposed development and is fully operational. Two additional data centres were permitted to the east of the subject site under **F19A/0087**.

- The PO recommended that FI was requested to address lacunae identified in the EIAR and requested clarification regarding baseline surveys, modelling assumptions, climate impact assessment, noise and carbon generation.
- FI was also requested on the location of cycle parking, compliance with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy and predicted noise levels.

The second report of the PO assessed the submission from the applicant which included an addendum to the EIAR addressing the queries regarding the Air Quality and Climate Chapter, the Noise Chapter and updated Soil Quality Assessment and Ground Investigation Report. The FI submission also included a technical report on the carbon generated during the construction phase of the development and architectural drawings of the proposed bicycle parking area. The PA did not consider the information to be significant and did not require public notices.

#### 4.2.2. Other Technical Reports

- Water Services – No objection.
- Transportation Planning – No objection. Conditions recommended.
- Parks & Green Infrastructure – No objection. Conditions recommended.
- Environment, Climate Action & Active Travel Department – No objection. Condition recommended.
- Environmental Health Officer (Health, Air & Noise Unit) – No objection. Conditions recommended.
- The PA commissioned an independent consultant (Arup) to review the environmental information submitted by the applicant as it related to the EIAR. The conclusions of the report are summarised as follows,
  - Item 1 (a) – regarding updated soil analysis – the response concludes that there has been no contamination arising since 2016 and no exceedances of the guidelines were recorded.
  - Item 1(b) – regarding the modelling assumptions in Table 9.9, Air Quality and Climate – although air quality standards will be complied with, worst-case concentrations will be elevated. Air quality standards will be reduced

in the coming years under the *Clean Air Strategy for Ireland, (2023)*. Therefore, the report recommends that a condition is attached to require the applicant to use the lowest number of generators possible. (This recommendation was accepted by the PA who attached Condition No. 11 to their decision. The text of Condition No. 11 is set out in Section 4.1.2 above)

- Item 1 (c) – regarding the basis of the assumption of the generators operating for only 72 hours per year – this relates to a condition of the existing IE Licence for the site. It is expected that a revised licence would have the same condition. The report recommends that a condition limiting the operation of the generators to 72 hours per year is attached. (The decision of the PA did not attach a condition to restrict the hours of use).
- Item 1 (d) and (e) – regarding the update of the Climate Impact Assessment in Chapter 9 of the EIAR having regard to IEMA guidance on assessing GHG emissions. Mitigation measures are requested and an assessment of the likely carbon to be generated during the construction phase were requested. The report notes that an Addendum to Chapter 9 of the EIAR was submitted and a report assessing the likely carbon to be generated. The contents and assessment of the EIAR and addendum report is set out in full in Section 11.0 of this report. The report of the consultant recommended that a condition be attached to ensure that the applicants' commitments to renewable energy and reducing GHG emissions were implemented. (The PA accepted the recommendation and are incorporated into Conditions No. 12 and 13, which are listed in full in Section 4.1.2 above.).
- Item 1 (f) – regarding clarification of the parameters of Scenario C in the noise assessment in Chapter 10 of the EIAR. The contents and assessment of the EIAR and addendum report is set out in full in Section 11.0 of this report. The report of the consultant recommended that a condition be attached to ensure that the generators are tested in sequence and never concurrently. (The PA accepted the recommendation and attached Condition No. 12).

### 4.3. Prescribed Bodies

- Uisce Éireann – No objection.
- daa (Dublin Airport Authority) – No objection subject to condition regarding agreement for crane use during construction.
- IAA (Irish Aviation Authority) – The report of the PO refers to a submission received from the IAA on the 24<sup>th</sup> of January 2023. Comments in the report note that the IAA recommended that the completed Glint and Glare study should be submitted to the daa and the Irish Aviation Authority's Air Navigation Services Provider (ANSP). A condition relating to crane operations was recommended. A copy of the submission was not attached to the hard copy file forwarded by the PA and was not uploaded to the public record on the PA's website. However, a Glint & Glare Assessment was included in the EIAR and is contained in Appendix 14.1.
- HSA – No observation to make.
- EPA – The EPA received an application for an Industrial Emissions (IE) licence, (Ref. P1182-01), for an activity under Class 2.1 of the EPA Act relating to 'Combustion of fuels in installations with a total rated thermal input of 50 MW or more' on a site at Cruiserath Road in April 2022. The proposed development appears to be within the boundary of licence **Ref. P1182-01** but may need to be updated to include the changes proposed in the planning application. The EPA notes that the EIAR submitted with the licence application appears to be different to the EIAR lodged with the planning application. Emissions to air from the development could potentially impact on air quality from nitrogen oxides. The EIAR should address these impacts alone with any cumulative impacts from other emission sources in the area. Should the applicant wish to include the changes proposed in the planning application with the IE licence application, the EIAR will have to be submitted to the EPA. In accordance with Section 87(1D)(d) of the EPA Act, the Agency cannot issue a determination on a licence application which addresses the subject development until a planning decision has been made.

#### 4.4. Third Party Observations

A total of 12 number third party observations were received by the PA and raised the following issues,

- Increased GHG emissions because of the development,
- Alignment of the development with Government policy on climate change,
- Quality of assessments and information in the EIAR,
- Compliance with the Climate Act,
- Impact on Ireland meeting its climate targets and carbon budgets,
- Inadequate mitigation measures proposed,
- Excessive demand on the national grid.

A further 3 number submissions were received on foot of the applicant's response to the FI request. No new issues were raised in these submissions.

#### 5.0 Planning History

**On the subject site -**

**ABP-314894-22** – Planning permission **approved** by the Board under Section 182A of the Planning and Development Act 2000 (as amended) (hereinafter referred to as the Act) in 2023 for the development of a 220kV Gas Insulated Switchgear (GIS) substation on lands at Kilshane Road, and an underground 220kV transmission line connection to the existing Cruiserath 220kV substation.

**FW21A/0039** – Planning permission **granted** in 2021 by Fingal Co. Council for the provision of external lighting to the substation buildings and the perimeter fencing at the permitted Cruiserath 220kV substation.

**ABP-306834-20** – Planning permission **approved** by the Board for development proposed under S182B of the Act for provision of a double circuit 220kV transmission line and a 220kV gas insulated switchgear (GIS) substation along with associated and ancillary works to Amazon Data Services Ireland Ltd at Cruiserath, Goddamendy and Bay in Fingal. The decision was made on 09/10/2020.

**FW19A/0087** – Planning permission **granted** in 2019 for the construction of two data storage buildings, (Building B and C) with a gross floor area of c. 21,705sq.m. each (43,410sq. m. in total). The facilities would require 48 emergency generators (24 each) along with an onsite diesel tank and filling area. Additional works include parking for 100 cars and 50 bicycle parking spaces with landscaping drainage and internal roads. The application is located to the north of the data storage facility permitted under **ABP Ref. PL06F.248544 / FCC Ref. FW17A/0025**.

**ABP Ref. PL06F.248544 / FCC Ref. FW17A/0025** – Planning permission **granted** in 2018 for a data storage facility (Building A) with a gross floor area of 20,739sq. m. with adjacent compound, emergency generators (26 no.), switchroom, security building, landscaping, parking for 46 no. cars and 15 no. bicycles. This development represented Phase 1 of a masterplan site.

**On sites nearby -**

**FW23A/0342** – On the adjoining site to the east – Planning permission **granted** for and extension to the Bristol Meyers Squib plant to include a 2-storey Biopharmaceutical Development and Manufacturing Building of approximately 11,670 sq m and 15.5 m high and the refurbishment and extension of the existing 2-storey laboratory with additional car parking and associated development. An EIAR and NIS were submitted with the application.

**FW18A/0121** – On the adjoining site to the north – Planning permission **granted** for the construction of a two-storey office building 38 no. cycle spaces, 80 no. car spaces.

**FW22A/0257** – On a site to the north-east of the subject site – Planning permission **granted** for modifications to **FW21A/0077** and **FW21A/0222** for the change of use of the revised warehouse/logistics building (GFA 1,179 sq m) approved under **FW21A/0222** to an energy centre containing 12 no. generator units and 6 flues to power the 2 no. data storage buildings approved under **FW21A/0077**.

**ABP-318790-24, (PA Ref. FW23A/0184)** – Planning permission **refused** by the PA for amendments to a scheme permitted under FW22A/0308 to comprise the change of use from warehouse/logistics unit to Data Centre and to increase the overall size of the building to 6,524 sq m to accommodate an internal mezzanine level. The development was refused for three reasons which are set out below. This

application is currently on appeal to An Bord Pleanála and a decision is pending. The reasons for refusal are,

- *The PA were not satisfied that the proposal was in accordance with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) by virtue of the lack of significant on-site renewable energy to power the development and the applicant's lack of engagement with Power Purchase Agreements in Ireland. The PA considered that the development would materially contravene Objective DMS092 of the County Development Plan.*
- *The PA were not satisfied that sufficient information has been submitted to allow for adequate screening for EIA and considered that the development would be contrary to the proper planning and sustainable development of the area.*

**FW22A/0168** – Planning permission granted by the PA for amendments to permission **FW17A/0167** (which was for the demolition of existing warehouse and the construction of 3 no. Data Centres and associated works), and **FW18A/0114** (which was for amendments to permitted Data Centres). The amendments proposed relate to development in Phase 1 and include alterations to permitted buildings, including internal layouts and external details and temporary works to provide 4 no. gas powered generators and 4 no. bio diesel (HVO) generators (including biodiesel storage) until Phase 2 and 3 is delivered.

## 6.0 Policy Context

### 6.1. Development Plan

The application was lodged and initially assessed under the Fingal County Development Plan 2017-2023. The applicants RFI was lodged under the Fingal County Development Plan 2023-2029 and the information was assessed by the PA against the policies and objectives of the new plan.

I note to the Board that the grounds of appeal argued that the development would materially contravene objectives NH27, GI22, NH20, CH05 and CH06 of the Fingal Development Plan 2017-2023, which has since been replaced. The objectives

referenced are listed below and generally relate to biodiversity, green infrastructure and cultural heritage,

*NH20 - Maintain and/or enhance the biodiversity of the Nature Development Areas indicated on the Green Infrastructure maps.*

*NH27 - Protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character and ensure that proper provision is made for their protection and management.*

*GI22 - Require all proposals for large scale development such as road or drainage schemes, wind farms, housing estates, industrial parks or shopping centres to submit a Green Infrastructure Plan as an integral part of a planning application.*

*CH05 - Ensure archaeological remains are identified and fully considered at the very earliest stages of the development process, that schemes are designed to avoid impacting on the archaeological heritage.*

*CH06 - Require that proposals for linear development over one kilometre in length; proposals for development involving ground clearance of more than half a hectare; or developments in proximity to areas with a density of known archaeological monuments and history of discovery; to include an Archaeological Impact Assessment and refer such applications to the relevant Prescribed Bodies.*

As noted above, these policies were no longer in place at the time of the decision of the PA.

### **Fingal County Development Plan 2023-2029**

**Zoning** – The subject site is zoned HT – High Technology, which seeks to, ‘Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment zoning objective’.

The vision for the HT zoning objective is to, ‘Facilitate opportunities for high technology, high technology and advanced manufacturing, major office and research and development-based employment within high quality, highly accessible, campus style settings. The HT zoning is aimed at providing a location for high end, high-quality, value-added businesses and corporate headquarters. An emphasis on

*exemplar sustainable design and aesthetic quality will be promoted to enhance corporate image and identity’.*

Data centres are not specifically listed as ‘Permitted in Principle’ in the HT zoning objective. However, I consider that data centres are a high technology form of development. In addition, ‘Utility Installations’ are listed as permissible in principle and the Development Plan states that, *‘Uses which are neither ‘Permitted in Principle’ nor ‘Not Permitted’ will be assessed in terms of their contribution towards the achievement of the Zoning Objective and Vision and their compliance and consistency with the policies and objectives of the Development Plan’.*

The site is located within the Airport Noise Zone C.

## **Chapter 5 – Climate Action**

**Policy CAP20 – Capture and Utilisation of Waste Heat - Encourage proposed and existing developments and facilities (such as data centres) to capture and utilise otherwise wasted heat, and use waste heat either on-site, or in an adjoining, and nearby sites, in compliance with all relevant Energy Efficiency Regulations.**

## **Chapter 7 – Employment and Economy**

**Objective EEO36 – Needs of Enterprises and Bespoke Building Facilities - 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 EEO38 – ICT, Financial and Banking Sector - Promote the growth of the ICT and financial and banking sector in Fingal by facilitating the conditions conducive to such development including the creation of high-quality physical environments offering a range of building and office accommodation types, supported through the provision of the necessary services and public transport infrastructure.**

## **Chapter 11 – Infrastructure and Utilities**

**Policy IUP27 – Energy Networks and ICT Infrastructure - Facilitate and promote the development of energy networks and ICT infrastructure where necessary to facilitate sustainable growth and economic development and support the provision of critical energy utilities and the transition to alternative, renewable, decarbonised, and decentralised energy sources, technologies, and infrastructure.**

## **Chapter 14 – Development Management Standards**

### **14.15.3 – Space Extensive Developments**

Data centres are included in the category of ‘Space Extensive Developments’ as they generate low-intensity employment. Fingal Co. Council will support these facilities at appropriate locations on a case-by-case basis. These facilities should not be located on lands that are more suitable for employment intensive developments/facilities, which are close to public transport infrastructure and built-up areas where compact growth is encouraged.

**Objective DMS092** – Proposals for space extensive developments such as data centres are required to address the following:

- Energy efficiency measures for the development to reduce the carbon footprint in support of national targets towards a net zero carbon economy, including renewable energy generation.
- The extent of energy demand and proximity to multiple high voltage strategic grid connections with significant electricity supply capacity available, including areas with high concentration of renewable energy electricity generators.
- The availability of appropriate infrastructure such as high voltage electricity, fibre optic cables, water and wastewater etc. to support the use as a data centre.
- Measures to support the just transition to a circular economy.
- Measures to facilitate district heating or heat networks where excess heat is produced.
- High-quality design approach to buildings which reduces the massing and visual impact of same. A visual impact assessment may be required in some circumstances, depending on the specific site.
- Details of employment numbers once operational.
- Details of the levels of traffic to and from the site at construction and operation stage.
- Evidence of sign up to the Climate Neutral Data Centre Pact.

- A decommissioning report which sets out the development strategy for the site if and when the data centre is no longer in use, in order to bring the site back to a future developable state.
- The principles for Sustainable Data Centre Development as per the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (July 2022).

#### **14.21.2 – District Heating / Waste Heat**

**Objective DMSO259** – Capture and Utilisation of Waste Heat - Encourage proposed and existing developments and facilities (such as data centres) to capture and utilise otherwise wasted heat, and use waste heat either on-site, or in an adjoining, and nearby sites, in compliance with all relevant Energy Efficiency Regulations. **Fingal Climate Action Plan 2024-2029**

Strategic priorities for Fingal based on the Dublin Region Energy/Master Plan (Codema) include,

- Decarbonisation of heat - District Heating has significant potential in the Fingal area, with the Dublin 15 area having the most potential.
- Renewable electricity - Significant electricity consumers such as data centres and other large industrial sites should maximise on-site renewable generation and ensure any remaining demand is supplied through renewable Power Purchase Agreements (preferably those that match hourly site demand), which finance renewable electricity projects within Ireland or its territorial waters.

Regarding Energy & Buildings, action ref. E25 is to Deliver Blanchardstown District Heating Scheme.

## **6.2. National Policy Documents**

### **6.2.1. National Planning Framework (NPF – Project 2040).**

The NPF is the Government’s high-level strategic plan for shaping the future growth and development of the country to the year 2040. The plan sets out a shared set of goals for every community across the country which are expressed as National Strategic Outcomes (NSO).

- **NSO 5** is for a Strong Economy Supported by Enterprise, Innovation and Skills, seeks the ‘Promotion of Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities.’
- **NSO 8** is for a Transition to a Low Carbon and Climate Resilient Society notes that new energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system.

The policies in the NPF are structured under National Policy Objectives (NPOs).

- **NPO 54** - Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas (GHG) emissions reductions.

#### 6.2.2. **Regional Spatial & Economic Strategy (RSES) for the Eastern & Midlands Region (2019-2031)**

The RSES is a strategic plan and investment framework to shape the development of the region to 2031. Regional Policy Objectives (RPOs) guide appropriate policy responses.

**RPO 8.25** – Local Authorities shall (inter alia):

- 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.

### 6.2.3. **Climate Action and Low Carbon Development (Amendment) Act 2021**

(hereinafter the Climate Act).

The Climate Act sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy. It commits Ireland to 2030 and 2050 targets for reducing GHG emissions, with net-zero emissions to be achieved no later than 2050 and a 51% reduction in emissions by the end of this decade. Actions for each sector will be detailed in a Climate Action Plan which must be updated annually.

Section 15 (1) of the Act states that,

*A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—*

*(a) the most recent approved climate action plan,*

*(b) the most recent approved national long term climate action strategy,*

*(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*

*(d) the furtherance of the national climate objective, and*

*(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.*

### 6.2.4. **Climate Action Plan 2024**

Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan and the second plan to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021. It builds on the introduction of carbon budgets and sectoral emissions ceilings in Climate Action Plan 2023 and sets a course for Ireland's targets to halve emissions by 2030 and reach net-zero no later than 2050.

Sectoral emissions ceilings set out the maximum amount of GHG emissions that are permitted in different sectors of the economy during a carbon budgetary period. The ceiling for the Electricity Sector in the period 2021-2025 is 40 MtCO<sub>2</sub> eq. and in the period 2026-2030 is 20 MtCO<sub>2</sub> eq. (Million tonnes of carbon dioxide equivalent).

The Built Environment – Commercial Sector has a ceiling of 7 MtCO<sub>2</sub> to 2025 and 5 MtCO<sub>2</sub> to 2030. (Table 3.2).

#### 6.2.5. **Climate Change Advisory Council (CCAC) – Annual Review 2024**

The CCAC is an advisory body tasked with assessing and advising on how Ireland is making the transition to a climate-neutral economy. The Annual Review is prepared by the end of October each year and assesses Ireland's performance over the previous year in relation to implementing the Climate Action Plan and adhering to sectoral emissions ceilings.

One of the recommendations for the Electricity Sector in the 2024 annual review states that, *'The Government should ensure pricing incentives for data centres and other large energy users to shift electricity usage to times of low carbon emissions and to give the public access to data on their energy efficiency and sustainability performance.'*

#### 6.2.6. **Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, 2022**

Note – This Statement aligns with the with the Commission for Regulation of Utilities (CRU) Direction to System Operators related to Data Centre Grid Connection Processing (CRU/21/124), 2021, which is referenced below.

The Strategy notes that data centres comprise core digital infrastructure and play an indispensable role in our economy and society. The current constraints in the electricity system will result in limited capacity for further data centre development in the short term. The Statement signals that the Government has a clear preference for data centre developments that are associated with strong economic activity and employment, make efficient use of our electricity grid and deliver renewable energy in Ireland.

The Government has agreed a set of national principles that should inform and guide decisions on future data centre development as summarised below.

(1) **Economic Impact** – a preference for data centre development associated with strong economic activity and employment. It favours developments in regional locations aligned with the NPF and RSES.

(2) **Grid Capacity and Efficiency** – a preference for data centre developments that make efficient use of the electricity grid, using available capacity and alleviating constraints.

(3) **Renewables Additionality** – a preference for data centre developments that can demonstrate the additionality of their renewable energy use in Ireland, whether through new generation, repowering or otherwise increasing in-country renewable energy capacity proportionate to the impact of their energy demand.

(4) **Co-location or Proximity with Future-Proof Energy Supply** – a preference for data centre developments in locations where there is the potential to collocate a renewable generation facility or advanced storage for the data centre, supported by a CPPA, private wire or other arrangement.

(5) **Decarbonised Data Centres by Design** – a preference for data centre development that can demonstrate a clear pathway to decarbonise and ultimately provide net zero data services.

(6) **SME Access and Community Benefits** – a preference for data centre developments that provide opportunities for community engagement and assist SMEs, both at the construction phase and throughout the data centre lifecycle.

In considering Ireland’s decarbonisation goals, it is noted that given the intermittency of renewables, flexibility of data centre demand to ‘match’ renewable generation will become increasingly important in the future and can assist in meeting decarbonisation objectives. There may be options to develop sustainable off-grid power solutions in constrained or other areas, while maintaining the objective to connect to the national grid and enable the regional electricity system in the medium term.

Where a ‘behind-the-metre’ generation solution, (i.e. where users generate their own energy), is proposed with limited or no connection to the electricity system, it is essential that developments are consistent with a planned trajectory to net zero emissions, including through decarbonised gas if applicable and that they do not

threaten energy security. 'Islanded' data centre developments that are not connected to the electricity grid and are mainly powered by on-site fossil fuel generation, would not be in line with national policy. Such projects would run counter to emissions reduction objectives and could risk security of supply being transferred from electricity to gas supply.

#### **6.2.7. Commission for Regulation of Utilities Direction to System Operators related to Data Centre Grid Connection Processing (CRU/21/124), 2021**

The CRU issued this Direction on foot of the need to balance the needs of the electricity system against the demand for new data centre connections. Data centres have been identified as a distinct class of demand side user on foot of the scale and speed of electricity growth demand in this sector. A range of mitigation measures were considered to maintain security of supply while connecting new load to the system. In discussing dispatchable on-site generation and secondary fuel obligations the CRU notes that Ireland's CAP targets are a concern in issuing a Direction that involves the employment of fossil fuel generation as a mitigation measure. However, it is further noted that, other than imposing a moratorium on data centre demand connections (which is not supported), there are no other viable short-term mitigation options available that will continue to facilitate data centre connections while mitigating the threats to security of supply.

Applications for the connection of data centres must be assessed with reference to the following criteria to determine whether a connection offer can be made within the system stability and reliability needs of the electricity network:

- The location of the data centre applicant with respect to whether they are within a constrained or unconstrained region of the electricity system.
- The ability of the data centre applicant to bring onsite dispatchable generation (and/or storage) equivalent to or greater than their demand, which meets appropriate availability and other technical requirements as may be specified by the relevant System Operator (SO), to support security of supply.
- The ability of the data centre applicant to provide flexibility in their demand by reducing consumption when requested to do so by the relevant SO in times of

system constraint through using dispatchable on-site generation (and/or storage) which meets appropriate availability and other technical requirements as may be specified by the relevant SO, in order to support security of supply.

- The ability of the data centre applicant to provide flexibility in their demand by reducing consumption when requested to do so by the relevant SO, in times of system constraint, to support security of supply.
- Where having considered and applied the criteria the SO is of the view that a connection offer cannot be made to the applicant consistent with the needs of the electricity system, the application will not be processed further, and the application will terminate.

#### 6.2.8. National Energy Demand Strategy July 2024

The CRU opened a public consultation on *Large Energy User Connections Policy* in January 2024. The consultation formed part of the National Energy Demand Strategy, (NEDS) which was led by the CRU and was published in July 2024. The identification and development of focus areas was informed by responses received to the NEDS consultations. Three areas were identified –

- Area 1 – Smart Services – to introduce measures that encourage greater flexibility among domestic consumers and small businesses.
- Area 2 – Demand Flexibility and Response – to develop and implement incentives and measures to provide demand response at certain times or for system conditions.
- Area 3 – New Demand Connections - – New demand offers a potential route to increase flexibility, with CAP23 highlighting that Large Energy Users (LEUs) will be expected to make a higher proportional contribution to the flexibility target. This Area is initially focused on building flexibility contributions from LEUs seeking to connect.

The Strategy was developed in consideration of five overarching principles which state that initiatives should,

- enable the reduction of the emissions intensity of energy consumed, and/or the reduction of peak demand, and should reward customers for participation where appropriate/possible
- reduce the dispatch down of renewable generation at a local and/or system-wide level in Ireland to the overall benefit of customers
- support market participation and new connections by alleviating constraints on the network
- achieve long-term cost efficiency for customers associated with upgrading, expanding and operating the electricity system
- support security of supply for customers

Chapter 6 of the Strategy sets out the approach to Area 3 - New Demand Connections.

**Section 6.2 – Review of New LEU Connection Policy** - The strategy acknowledges that the growth of LEUs, such as data centres, is a key contributor to Ireland’s economic growth but also causes challenges to the grid. New connections increase demand for energy which requires an increased use of fossil fuels when renewable generation is low. As many LEUs are geographically concentrated around Dublin, the demands on the grid can lead to constraints. This limits the new connections that can be facilitated due to the need to manage risks to the security of energy supply. A crucial part of the NEDS must be to ensure that, given the significant demand from LEUs, they can contribute to demand flexibility, as this will be a key part of reducing constraints on the network and emissions.

**Section 6.3 – Strategic Development for new LEU Connections** notes that Consideration needs to be given to the implications of increasing demand from new LEUs and data centres with reference to the risk of one industry representing such a large proportion of the electricity demand. In light of Government policy to support the “twin transitions” of digitalisation and decarbonisation and the scale of data centre demand growth relative to the size of our electricity system, the CRU is of the view that the step-change in energy requirements from LEUs requires a more strategic approach to infrastructure development.

The CRU sees merit in locating new LEUs close to renewable generation and storage which would facilitate a more efficient use of grid infrastructure.

#### 6.2.9. **Government Policy Statement on Security of Energy Supply (2021)**

Section 2 of the Statement identifies most renewable energy generated by 2030 will be from wind and solar. Given the variable nature of these sources, other technologies will be required to support their operation and provide electricity supply when they are not generating. This will require a combination of technologies, including conventional generation typically powered by natural gas. As more wind, solar, storage and interconnection are added to the system, conventional generation is expected to operate less, but sufficient conventional generation capacity will still be required. It will spend much of its time in reserve for when needed – to balance the system in times of high demand and low wind/solar generation.

The significant growth in electricity demand from large energy users such as data centres is identified. The risk associated with such demand can be significantly mitigated by ensuring that new demand can be flexible or have its own onsite backup generation or storage capacity.

#### **Water Framework Directive**

The Water Framework Directive (Directive 2000/60/EC) is EU legislation which sets out a framework for the protection and improvement of water quality across various water bodies, including rivers, lakes, groundwater, and transitional coastal waters. The Directive requires all EU water bodies to meet a 'good' standard of water quality by 2027.

I note to the Board that the following EU Directives were referenced in the grounds of appeal,

- The EU Energy Efficiency Directive
- The Corporate Sustainability Reporting Directive and,
- The Directive on Corporate Sustainability Due Diligence.

None of the Directives listed above are considerations for the Board under their assessment of planning considerations for the subject proposal.

## 7.0 Natural Heritage Designations

- No designations apply to the subject site.

## 8.0 EIA Screening

- 8.1.1. The proposed development is for the construction of a data centre comprising three buildings with a combined floor area of 44,589 sq. m. with a GIS substation, 39 no. diesel fuelled generators, 2 MV substations and all ancillary works. The subject site is c. 13.14 hectares, but the overall landholding extends to 26.14 hectares. An EIAR was submitted with the application
- 8.1.2. An EIS was prepared for the first application on the site, (**PL06F.248544, PA Ref. F17A/0025**). Although the subject development does not meet the threshold for a mandatory EIA, the development forms the third phase of data centre development within the overall landholding. As an EIAR was submitted with Phase 1, the applicant considered it appropriate to carry out an EIA for the subject development. There are no activities listed within Part 1 of Schedule 5 of the Planning Regulations 2001(as amended), (hereinafter referred to as the Planning Regulations), which relate to the proposed development. It does not fall within the scope of activities listed in Part 1 of Schedule 5 and a mandatory EIA, as classified under Annex 1 is not required.
- 8.1.3. Class 10(a) of Part 2 of Schedule 5 requires a mandatory EIA where, '*Industrial estate development projects, where the area would exceed 15 hectares.*'. The proposed development is within a wider development site which already has three data centre buildings in place and operational. The entire site has an area of 13.14 hectares, which is sub-threshold for the purposes of Class 10(a).
- 8.1.4. Article 102 of the Planning and Development Regulations, 2001 (as amended) requires that '*where a planning application for sub-threshold development is accompanied by an EIAR, the application shall be dealt with as if the EIAR had been submitted in accordance with section 172(1) of the Act*'. The EIAR is assessed in full in Section 11 of this report.

## 9.0 The Appeal

### 9.1. Grounds of Appeal

Five separate third party appeals have been lodged from John Conway & Louth Environmental Group., Dr. Colin Doyle, Jerry Mac Evilly, Dr. Sarah Zimmerman and Mannix Coyne. The appeals and supporting documentation are lengthy and detailed. In the interest of brevity, I have summarised the main issues from each appeal below for the Board's information.

#### **Mannix Coyne**

- Carbon emissions from the development would have a significant impact on the environment. The appellant estimates that the development, along with permitted development on the site, would represent 1% of Ireland's total greenhouse gas (GHG) emissions.
- The development would place a significant demand on the national grid.
- The carbon emissions are incompatible with the Climate Action Plan aims to achieve a 51% reduction in GHG emissions by 2030.
- Little reference is made by the applicant regarding the impact of the development on carbon budgets and refers only to the impact of the development on the EU-wide ETS (Emissions Trading System) market.
- The Climate Action Plan 2023 is clear that the development is not exempt from the national carbon budgets.
- Under the Climate Action and Low Carbon Development (Amendment) Act 2021, the planning authority or the Board is obligated to perform its functions in a manner consistent with the most recent approved climate action plan.
- The project has not been subject to a full Environmental Impact Assessment or Appropriate Assessment.
- Condition No. 13 of the PA's decision requires the applicant to enter into a CPPA with a provider for renewable energy which represents a secondary project and should be included in the EIA assessment.

- The cumulative impact of the development – there is a proliferation of development of this type that are already built, in construction and planned for this immediate area.
- The contents of the original submission to the PA are also noted.

**Dr. Sarah Zimmerman / Fingal One Future**

- On site power generation via fossil fuels would result in GHG emissions. Commitments to offset GHG emissions and the use of Corporate Purchase Power Agreements (CPPA) are not in the interest of sustainable development.
- The energy usage required would put strain on the national grid.
- Planning Condition 13 is technically infeasible given the intermittent nature of wind and solar energy.
- Conditions 11 and 12 are not in the interest of sustainable development as the use of fossil fuel powered generators will generate significant amounts of GHG emissions. Condition 12b relates to renewable diesel, the use of which will be ineffective and unrealistic.
- No condition was attached that requires the transfer of surplus energy to the national grid.
- The contents of the original submission to the PA are also noted as are the numerous references appended to the appeal.

**Jerry MacEvilly / Friends of the Earth**

- The applicant has not demonstrated that the development is in accordance with Government Policy and emissions reductions in accordance with the Climate Act 2021.
- The proposed development represents a serious risk of carbon lock-in and would impose significant pressures on the decarbonisation of the electricity sector.
- The use of onsite diesel generators and associated long-term emissions would contribute to GHG emissions and would impact on Ireland achieving its carbon budget targets.

- Regarding the condition attached to the decision of the PA to require the applicant to enter into a renewable Corporate Power Purchase Agreement, (CCPA), the appellant is concerned that this would 'crowd out' renewables development which would otherwise be used to decarbonise the Irish electricity system.
- The condition refers to the renewable generation being equal or greater to the electricity requirements of the data centre. However, there is no way of matching the renewable generation to data centres as it will flow into the Single Electricity Market. Therefore, the decarbonisation of the site and associated emission reductions cannot be ensured by a renewables CPPA.
- The development has not demonstrated compliance with the Government's 2022 Statement on the Role of Data Centres.
- Condition No. 19 which prohibits any development above the parapet of the building may discourage the use of rooftop solar panels.
- Additional information provided in the applicants EIAR (Section 1(b) Table 9.9) is not clear or sufficient and provides no guarantee that emissions reductions would be in accordance with the Government's Statement on the Role of Data Centres, the Climate Action Plan or the Sectoral Emissions Ceiling in the Climate Act.
- Compliance with EU commitments under the EU Emission Trading Scheme (EU ETS) does not negate the national carbon budgets and sectoral emissions ceilings in accordance with the Climate Act.
- The EIAR does not sufficiently address the impact on air quality, human health and mitigation measures associated with the level of NO<sub>2</sub> (Nitrogen Dioxide) from the back-up generators.
- The appellant is of the view that clarity is required on the information that states that the back-up generators will operate for 72 hours a year with a maximum of 500 hours a year and how this complies with the EPA IE licence which stipulates 72 hours a year. Eirgrid may require additional hours in times of grid constraint.

- The PA failed to place any planning condition that requires the use of zero carbon technologies (battery storage / rooftop solar) which would reduce the need for fossil fuels.
- The information is not sufficient to address the impact on biodiversity and ecology in the area and would materially contravene objectives NH27, GI22, NH20, CH05 and CH06 of the Fingal Development Plan 2017-2023, which relate to natural heritage.
- The applicant does not address the revised EU Energy Efficiency Directive and the new EU Corporate Strategy Sustainability Due Diligence and Reporting Directives which require all data centre companies to improve energy efficiency standards, undertake cost benefit analysis and to publicly disclose information on energy performance, carbon emissions and environmental impacts.
- Concerns are expressed regarding the use of HVO (renewable diesel). The diesel used may not be renewable as this is 'subject to availability', and fossil fuels may be used instead. There are also concerns regarding traceability and certification. The EU has adopted a delegated act which labels palm oil diesel as unsustainable, which means that this biofuel will no longer be counted as a green fuel to meet the EU's 2030 renewable targets. Furthermore, HVO is not a carbon neutral solution and may fuel tropical deforestation.

### **John Conway & Louth Environmental Group**

- Planning bodies are bound by Section 15 of the Climate Action and Low Carbon Act 2015 (as amended in 2021).
- In their RFI, the applicant states that the development would consume 1925 GWh which translates to approx. 456,592 tonnes of CO<sub>2</sub> per year (including generator testing). The estimated GHG emissions and energy usage are high, and it is unclear as to whether the any off-site renewable energy to be relied upon is additional to that which has been in operation for years
- There is an ambiguity as to whether the renewable energy proposed to be used to power the development is additional to that currently in operation and

feeding into the grid or if it will be generated domestically or purchased on the international market.

- The additional demand for renewables for the development would decrease the existing supply of renewables for domestic and commercial users and necessitate the use of conventional emission generating power sources.
- It is unclear how permitting an additional energy intensive data centre is consistent with the criteria set out in Section 15 of the Climate Act, as there is a disproportionate number of data centres permitted and already in operation in the State. The Climate Action Plan 2023 (now updated) states that, in the short and medium-term, new demand from data centres will have to be managed to ensure security of supply and consistency with the carbon budget programme.
- Reliance placed on CPPAs is not evidence of mitigation against GHG generation as such an approach would require the applicant to demonstrate that indirect emissions from electricity would be higher in the absence of the contracted CPPA, i.e. that the renewable energy was additional and would not have happened without the CPPA. In this matter the response to the RFI from Dr. Colin Doyle is referenced and appended to the appeal.
- Planning Condition No. 13 attached to the decision of the PA seeks to address this matter but there does not seem to have been any assessment of any environmental impact associated with any new development envisaged to discharge this condition.

### **Dr Colin Doyle**

The appellant submits that decision of the PA effectively amounts to an ad hoc allocation of a portion of the remaining limited national carbon budget to the applicant.

#### Invalidity of CPPAs as a GHG offset -

- There are errors and deficiencies in the decision of the PA which accepts claims made by the applicant that proposed mitigation measures in the EIAR represent valid GHG offsets.

- Condition No. 13 is deficient as it does not specify additionality regarding the renewable energy required in the CPPA in accordance with government policy. Claims of a GHG offset in the EIAR and supporting documentation are without foundation and cannot be claimed.
- A question is put forward as to whether a CPPA for renewables represents an additional source of renewable energy which could be validly claimed as a GHG offset.
- The proposal that the energy demand from new data centres could be offset by wind energy is not credible as new wind generation has not kept pace with increases in data centre energy consumption in recent years.
- Projections to 2030 show that the growth of data centre power consumption may overwhelm all efforts of achieving 80% renewable energy (as per the Climate Action Plan 2023 (CAP 23)) and sets legally binding carbon budget and sectoral emissions ceiling for the electricity sector.
- The key factor in justifying the claim of a GHG offset would be the 'additionality' of renewables provided, i.e. additional renewables which would generate capacity that would not have happened without the intervention of the CPPA. The appellant contends that the applicant has not provided any evidence to demonstrate that the proposed CPPAs represent additional renewables and did not provide details of claimed renewables associated with existing Amazon Web Services (AWS) data centres as requested in FI.
- Condition No. 13 does not require the provision of a CPPA which would require 'additional' renewable energy. The appellant argues that windfarms in the 'existing development pipeline', (i.e. projects which have obtained planning permission and are at an advanced stage of design but have not yet been connected), cannot be factored in as 'additional' renewables as they have typically been a decade in planning.
- The appellant states that the applicants track record on the issue of additionality is not good based on a review of the planning files for the existing data centre developments on the site. The Energy Audit submitted by the

applicant does not demonstrate that they are providing ‘additionality’ to the market to power their facilities.

#### Deficiencies in Assessment of Climate Impact

- The appellant puts forward that the EIAR and revised EIAR are based on an assumed linear trajectory to 80% renewable energy by 2030. This is not guaranteed and represents a ‘best-case scenario’. It is argued that a more credible approach would be to use a ‘worst-case scenario’ which the appellant calculates to be 4 times higher than the EIAR predictions. (Calculations are appended to the appeal and are based on indirect emissions from fossil fuel power plants supplying the additional grid demand).
- The appellant does not accept the climate impact analysis submitted by the applicant in the original and amended EIAR and argues that the impact of the development should be categorised as ‘Major Adverse’ given the projected level of emissions because of the development in the ‘worst-case scenario’. Furthermore, mitigation measures rely entirely on the use of CPPAs to offset the GHG emissions when there is no evidence that this is a credible measure.

#### Cumulative Impact of Data Centres

- The existing approach to issuing planning consent to large energy users is piecemeal and could result in legally binding national carbon budgets being breached. Each EIAR deals specifically with the development in question with no comprehensive overview as to the cumulative impact of the development on national demand.
- To support this argument, the applicant carried out an assessment of three planning applications for data centres or associated facilities that were granted by the Board in 2021 – 2022. Along with the proposed development, the appellant estimates that the combined projects, which were all assessed by the applicant’s environmental consultant, would result in a range of 1.3 to almost 2 million tonnes of GHG in 2030. This would account for between 45% and 65% of the national emissions ceiling for the electricity sector in 2030.

#### Just Transition

- Reference is made to the Climate Bill 2021, (now enacted as the Climate Action and Low Carbon Development (Amendment) Act 2021), which includes a provision for a just transition to a climate neutral economy. The appellant argues that approval of the proposed development would not represent a just transition. Should permission be granted based on the proposed CPPAs, (Condition No. 13), it would assign a national renewable resource to a corporation that would profit from this resource. It would deprive the remaining economy and society of the same resource.
- The proposed development is an extremely carbon intensive use for the quantum of jobs provided. Based on the best-case scenario, each job provided in the centre, (based on the quantum of 100 jobs), would represent over 650 tonnes of GHG emissions per year. Current estimates for jobs in the wider industrial economy are less than 20 tonnes GHG/Job/per year.
- The appellant notes that the state may benefit from corporate tax from the applicant should the project go ahead. However, the actual benefit in corporate taxation is hard to quantify with many corporations paying low levels of tax in comparison to global profits.

#### Compliance with Government Policy

- The appeal submits that the development does not comply with government policy set out in the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy (2022) as,
  - There is no guarantee that Ireland's economy would benefit from a resultant economic impact.
  - There is no evidence that the proposed development will serve to alleviate potential future national grid constraints. Instead, it will be an additional constant load of 73 MW drawing from the national electricity grid.
  - There is no evidence that the development will provide 'additionality' of renewables.
  - The urban location of the proposed is not conducive to co-location with a renewable generation facility or advanced storage. The proposal for district heating would be costly, disruptive and may not be feasible.

- The development will rely on the national grid for power with the additional base load most likely being provided by fossil fuels.

## 9.2. Applicant Response

The applicant submitted a combined response to all five appeals on the 6<sup>th</sup> of November 2023. The response is summarised by heading below.

### Alleged deficiency in Fingal County Council decision.

- The applicant does not agree that the decision of the PA was flawed as it represents an ‘ad hoc allocation’ of the limited remaining national carbon budget which the PA has neither the expertise or legal authority to take. The corollary of this argument is that no PA could grant permission for any development that might take up part of the national carbon budget, which is clearly not correct.
- The applicant is satisfied that the decision of the PA was robust and considered all relevant planning policy and guidance.

### CPPA and Renewable Additionality

- Condition No. 13 - The wording of the condition requires the applicant to enter into a CPPA for energy use for the development to ensure that the energy demand will be met with new renewable generation.
- The applicant argues that the Sectoral Ceiling Emissions for the Electricity Sector were calculated in line with the EirGrid Generation Capacity Statement 2020-2029. The demand growth scenario outlined by EirGrid, and adopted by the applicant in their assessment, was influenced factors which included contracted data centre capacity, such as the subject proposal.
- The Climate Action Plan 2023, (since updated by the CAP 2024) aligns with the legally binding economy-wide carbon budgets and sectoral ceilings. Regarding the Electricity Sector, CAP23 states that the plan is to increase the proportion of renewable energy to 80% by 2030. The applicant argues that the 80% renewable energy share of demand is worked back from the Carbon

Budget, the Sectoral Emissions Ceilings and the demand projections for all sectors. As referenced above, the demand projections include the proposed development as a contracted data centre.

- The High Court judgement in the *Coyne v An Bord Pleanala* [2023] IEHC 412 is referenced by the applicant regarding the content of EIA as they relate to climate change.
- In response to the argument that ‘additionality’ only occurs where a renewable project would not have happened without a CPPA, the applicant states that their corporate policy is to work with energy companies around the globe to develop new renewable projects dedicated to serving their load. This is aligned with the government document, ‘*Renewable Electricity Corporate Power Purchase Agreements Roadmap (2022)*’.
- The appellant puts forward an assumption that all renewable projects ‘in the pipeline’ will be delivered. This is not always the case as some projects depend on funding to progress, which can be provided through CPPAs.
- The stipulation in Condition No. 13 that any CPPA for the proposed development would not be subject to any direct government or public subsidy, under the Renewable Electricity Support Scheme (RESS), is in line with the CPPA Roadmap.
- The applicant refutes the assertion that if a CPPA is accepted for the proposal it will result in a situation whereby all new renewable projects could be claimed for the requirements of large energy users. There is no basis for this argument and the applicant’s engagement with a CPPA is entirely in accordance with the terms of the Government Statement (2022) on the matter.

#### Alleged overconcentration of Data Centre development –

- The proposed development represents the next phase in an established data centre campus which was permitted in 2017. The overall campus is provided for under an existing connection agreement with the transmission system operator.

- The development is in keeping with national and regional planning policies pertaining to data centre development, as well as the Government Statement on Data Centres 2022.
- Planning policy supports data centre development and sets out the criteria for consideration when assessing the suitability of a proposal.
- The applicant submits that whilst the appellants may not agree with national policy on data centres as it currently stands, an appeal or challenge to a particular development proposal is not an appropriate avenue to launch a collateral attack on policies. The applicant references the original judgement in the 'Kilkenny Cheese' case [2021] IEHC 254 in this instance.

#### Cumulative assessment of data centre development -

- In response to the argument made that the current assessment framework could lead to multiple projects being permitted without addressing their cumulative impact, the applicant states that, all data centre development proposals are assessed on information pertaining to the specific site and to extended regions and environments because of environmental assessments and screenings. The proposed development is in accordance with the policies and objectives of the NPF and the RSES which support development of this nature. The development is also in accordance with the *Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy 2022*, (hereinafter referred to as the Government Statement on Data Centres).
- The assessment of the subject proposal in conjunction with all other data centres in Ireland is appropriately addressed through national policy and programmatic measures. The Government Statement on Data Centres addresses the development of data centres at a national level and sets out six principles for consideration in new development proposals.
- The applicant notes that the EIAR submitted with the application assesses the cumulative impacts of the development. The EIAR was prepared in accordance with the Institute of Environmental Management and Assessment (IEMA) guidance note on '*Assessing Greenhouse Gas Emissions and Evaluating their Significance*', (IEMA, 2022) (hereinafter the IEMA

Guidelines). On this basis the applicant is satisfied that the cumulative impact of the project has been robustly assessed in accordance with relevant guidance. An assessment of the cumulative impact of a large number of projects nationally is not a matter for an individual application and instead, is a matter of national policy.

- In their response to this matter, the applicant references previous Board decisions on similar developments, (**ABP- 310729-21** and **ABP-307546-20**). The High Court decision in *Coyne v An Bord Pleanála [2023] IEHC 412*, is also referenced.

Accuracy of climate assessment, conclusions on climate impact and consideration of reasonable worst-case scenario -

- The applicant refutes the assertion that the climate assessment included in the EIAR, (and the addendum EIAR), mischaracterised and underestimated the impact of the proposed development.
- The proposed development would not result in new unforeseen demand as there is an existing connection agreement since 2017, with that demand built into all forecasts for sectoral demand. As such it will not affect sectoral ceilings or the predicted quantity of conventional (fossil fuel) generation.
- The categorisation of the impact of the development as ‘minor adverse’ post mitigation, accords with the IEMA Guidelines. The assessment in the EIAR Addendum submitted with further information, is based on a reasonable worst-case scenario in relation to GHG emissions. (A detailed account of how the scenario was calculated is set out in Page 26 of the applicant’s submission and in Appendix 3 – Technical Response to Third Party Appeals, appended to the response).
- The appellants suggestion that 100% conventional energy generation should be considered as the ‘worst-case scenario’ defies reality and ignores a plethora of Government policy and related initiatives and plans. It also ignores the extensive investment in renewable energy generation and power supply both within Ireland and within the power grids that Ireland is connected to, and the applicants own renewable investments and record in recent years.

### The EU ETS and National Carbon Targets / Sectoral Emissions Ceilings -

- The applicant submits that the decision of the High Court decision in *Coyne v An Bord Pleanála [2023] IEHC 412*, is relevant to the point made in the appeal that the application places undue weight on the inclusion of the indirect emissions from the proposed development within the EU Emissions Trading Scheme (EU ETS). The applicant also states that the ETS has a direct effect on the formulation of national targets for the transition to renewable electricity generation. These targets are expressed as Government policy 'commitments', which the Board is obliged to have regard to.
- On this basis, the applicant argues that it is entirely appropriate to review the predicted impact of the proposal in the context of the EU ETS. The proposed development and its impact have been considered specifically in the context of sectoral ceilings emissions which are set at a national level. (The applicant's response includes a detailed technical document prepared by consultants and appended to the response in Appendix 3).

### Consistency with the Climate Action Plan 2023 (CAP 23) Statement on Large Energy Users and Just Transition -

- The applicant states that the CAP contains a footnote that links to the Government Statement on the Role of Data Centres. It is argued that the implication is that the Government Statement and its guiding principles will achieve the aim of moderating new demand growth to protect security of supply and ensure consistency with the carbon budget programme. Compliance with the Statement is set out in detail in Section 7 of the Planning Report and supplemented in the Further Information Response to the PA.
- The proposed development is in accordance with the CAP and does not represent 'new demand growth' as the energy requirements of the development are provided for under an existing connection agreement from 2017, which remains valid. Therefore, the projected electricity usage has been accounted for by the Transmission System Operator (Eirgrid) and does not constitute additional unplanned or 'new demand growth'. The energy provided under the connection agreement forms part of the established EirGrid Generation Capacity Statement.

- The applicant notes that the CAP refers to ‘moderation of new demand growth’ and not a complete moratorium on data centre development. The Government Statement also effectively seeks to moderate growth in demand from data centres by outlining the principles against which new projects will or can be accommodated. The proposed development meets all the principles in the Statement.
- The assertion that the carbon emissions associated with each job would be high assumes that the CPPA to be entered into would not represent ‘additionality’ of renewable energy and that the only employment from the development would relate to those directly employed in the operative stage. The applicant refutes this as the economic benefit of the centre is not limited to the direct employment afforded in the building itself and that the CPPA would represent additionality for the reasons outlined above.

Consistency with the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy (2022)

- Principle 1 - In terms of a contribution to economic activity and employment, the applicant refers to Section 7 of the Planning Report submitted with the application as well as a new economic impact and employment report which was prepared by Indecon and published in October 2023. (A copy of the report is appended to the response). The report outlines the number of direct and indirect jobs provided by the applicant (AWS) in Ireland, the level of investment to date in the county and the contribution to the economy.
- Principle 2 - Grid capacity and efficiency – the applicant reiterates that a connection agreement for the proposed development has been in place since 2017 and remains valid. Therefore, the developments projected energy usage has already been accounted for by the Eirgrid and does not constitute additional unplanned demand.
- The Commission for Regulation of Utilities (CRU) ‘*Direction to the System Operators related to Data Centre grid connection processing*’, (CRU/21/124)’, does not apply to the subject development as the relevant connection agreement pre-dates the Direction.

- The development will be supplied by the existing Cruiserath 220kV substation which is located within the wider landholding and was developed by the applicant under **ABP-306834-20**.
- To enable more efficient energy planning by Eirgrid and efficient use of the grid, the applicant sought a revision to the original connection agreement. The original agreement required all power to be made available once the Cruiserath 220kV Substation entered operation. The revised connection agreement provides for eight incremental ramps (increases) in power supply to the site commencing in 2022 and completing in 2029. Each ramp would come into effect on the 1<sup>st</sup> of January each year and the revised agreement demonstrates the applicants ongoing engagement with Eirgrid.
- The appellants assertion that the development will require an immediate increased power demand of 73MW is incorrect. The connection agreement confirms that the power for Building E is available immediately while power for Building F will be made available in 2027. As set out in the EIAR and the RFI, the development will be delivered on a phased basis with Building E to be constructed first and then followed by Building F and Building G. Once operational the IT equipment in the centres may not utilise all power available. Instead, the power draw from the facility will ramp up over time with advances in IT equipment and compute power.
- Principle 3 - Renewable Additionality – The applicant reiterates their argument that the CPPA represents ‘additionality’.
- Principle 4 – Co-Location or Proximity with Future Proof Energy Design – Section 7 of the Planning Report acknowledges that the site does not allow for large scale renewable generation. However, the energy use for the development will be met through a CPPA for new energy generation and the maximum possible area of solar PV at roof level will be provided. The appellant is incorrect in their assertion that district heating is not feasible. The applicant states that they have successfully delivered such a project at their data centre in Tallaght under the Tallaght District Heating Scheme (TDHS). The applicant has been actively supporting Codema with a view to developing district heating proposals to use the proposed developments waste heat.

Progress has been made with this to date. In February 2023 an Outline Business Case for the Blanchardstown District Heating Scheme (B-DHS) was prepared by Codema on behalf of Fingal County Council. The Codema report identified the Amazon data centre as the preferred waste heat source as it can meet the projected demand. The applicant remains committed to supporting the B-DHS.

- Principle 5 - Decarbonised data centres by design - The applicant outlines their initiatives and commitments to reaching net zero carbon emissions, lower water usage in their facilities, designing all their buildings to a Building Energy Rating (BER) of A3 or higher and using Hydrogenated Vegetable Oil (HVO) to fuel generators.
- Principle 6 – Small to Medium Enterprise (SME) Access and Community Benefits – Section 7 of the Planning Report details the range of community benefits and benefits of SMEs associated with the development. Some of the projects and initiatives are highlighted in the applicant’s response to the appeal.

#### Compliance with the *Fingal County Development Plan*

- In response to the issue raised by the appellants regarding the impact of the proposal on biodiversity and ecology, the applicant is satisfied that the development is fully in compliance with the Fingal Development Plan 2023-2029, which is the operative Development Plan.

#### Carbon Emissions During Construction –

- The grounds of appeal state that the Carbon Assessment Report submitted as part of further information did not address raw materials. Therefore, the assessment underestimated the carbon associated with the development. A technical response was prepared by the applicant’s consultants and is appended to the response. It states that a comprehensive qualitative assessment of the climate impact at construction stage was provided in the EIAR and the RFI to Fingal County Council along with a quantitative assessment of stages A4 and A5 of the assessment methodology (which relate to Transport and Construction) as specifically requested by Fingal. The

appeal response also contains an updated Carbon Assessment Report which includes assessment items A1 to A3 (which relate to raw materials).

- The results of the report state that, based on the measures taken to use low carbon construction materials the carbon impact will be significantly less than the estimates put forward by the appellant. It is concluded that the impact of the proposed development is insignificant in the context of Ireland's GHG emissions over the period 2023-2027.

#### Impact of On-Site Generators and Operating Hours of generators –

- In response to the issues raised in the appeal regarding the regulation of the on-site generators, the applicant states that the Board must determine an appeal based on the extant regulatory context at the time of the appeal, as determined in the *High Court decision in Element Power Ireland Ltd. V An Bord Pleanála [2017]*. At the time of writing, the CRU are engaging in a 'Review of Large Energy Users Connection Policy Call for Evidence Paper' (CRU/202357). However, this document has no relevance for the proposed development as it relates to 'new-demand connections', and the subject proposal has been approved under the 2017 connection agreement.
- The back-up generators are designed to operate in response to power losses due to unplanned and planned events. Planned events comprise maintenance works, equipment replacement and routine testing of generators. As mentioned in the applicants RFI, the 72-hour operation of generators is an internal design standard for the applicant, unless local code, utilities or regulators require a higher or lower amount. The internal standard of 72 hours represents a conservative, worst-case scenario.
- The applicant's response summarises the measures being taken to address security of supply concerns and notes that in periods of grid pressure, large energy users can be required to utilise back-up generators to ensure the grid remains stable and functioning. Such events have been factored into the assumption of generator use set out in the EIAR.
- The assessment undertaken as part of the RFI and in the Addendum to Chapter 9 of the EIAR was based on a reasonable worst-case scenario

reflecting the extensive experience of the applicant in operating data centres across a range of geographic regions including Ireland.

#### Industrial Emissions Directive

- The applicant notes that the air modelling carried out for the EIAR and RFI was carried out in line with the appropriate guidance from the EPA (Air Dispersion Modelling from Industrial Installations Guidance Note (AG4) EPA 2020) and using the appropriate air dispersion model (USEPA approved AERMOD model). In addition, an EPA Industrial Emissions Licence (IED) will be applied for to facilitate the operation of the proposed development.
- Since the planning application was lodged an IED licence was approved for the operation of back-up generators at the permitted development of Buildings A, B and C within the wider landholding of the site. Condition A.1.1. of this licence specifically references the operation of generators outside of the standard generator testing/maintenance and states that, *'Generators shall not be operated for more than 72 hours annually. Generators shall not be operated at more than 90% load'*.
- The applicant's commitment to apply for an amendment to the IE licence is stated in the public notices. They are also willing to accept a planning condition to this effect based on the following wording: *'Prior to the operation of the development, the Industrial Emissions Licence for the wider landholding shall be amended to include this development'*.
- As set out in Chapter 1.0 of the EIAR, the proposed development will require an EPA Greenhouse Gas Emissions permit in accordance with the EPA Act 1992, as amended. A GHG permit is in place for the back-up generators at Building A (**Reg. No. – IE-GHG197-10524-1**). This permit has been amended to include back-up generators at Buildings B and C. It is proposed to amend the permit again to accommodate the proposed development.
- The applicant clarifies that the modelling for the generators was based on the back-up generators running simultaneously (across the entire campus, including the proposed development and a potential future phase of development) for 72 hours annually. The applicant considers this to represent

a reasonable worst-case scenario based on the type of event that would precipitate such an occurrence.

- In response to the ground of appeal that asserts that the potential impacts on human health arising from the operation of generators on the site was not undertaken, the applicant states that the EIAR included a comprehensive assessment of air quality in accordance with the relevant EPA guidance. The detailed modelling adopted a precautionary approach and predicted that the impact would be long-term, slight and negative. Thus, no significant impacts were predicted based on the robust modelling undertaken.

#### Use of renewable diesel –

- An objection was raised by appellants as to whether the use of Hydrated Vegetable Oil (HVO) is a valid mitigation measure and a renewable fuel source. The applicant notes that Section 7.43 of the Planning Report and the air quality and climate assessment in the EIAR were based on the use of fossil fuel (diesel) as a worst-case scenario and did not consider the lower emissions associated with HVO. In March 2023, the applicant signed a supply agreement with Certa to provide renewable HVO to their Dublin operations, including the proposed development. The supply agreement means that the back-up generators will be supplied with HVO from the date of commissioning along with any refills required. Given the volume of supply, it is unlikely that the applicant will need to use diesel for the proposed development. In fact, all refills of existing back-up generators in Dublin have been with HVO since October 2022.
- The applicant recognises the legitimate concerns regarding some mixes of renewable diesel. This is why they commit to developing a global supply chain, working with local organisations such as Certa in Ireland and investing in the procurement of HVO that only comes from renewable sources. The applicant's purchase of HVO excludes the use of Palm Oil or Soy Oil and has confirmed that the supplier's material safety data sheet excludes such materials. It is argued that the use of HVO will reduce GHG and SO<sup>2</sup> (sulphur dioxide) emissions and lower NO<sub>x</sub> (nitrogen oxides) and PM (particulate matter) emissions.

### Other issues raised –

- Condition No. 19 prohibits any additional development on the roof above parapet level. The appellants assertion that this would restrict additional solar PV panels is incorrect as the development was designed to include the maximum possible coverage with rooftop solar PV panels. Therefore, the inclusion of this condition or a similar condition would not result in the unintended curtailing of solar provision on the proposed building.
- In response to the assertion that the climate commitments of the applicant, such as the Amazon Climate Pledge, are not relevant considerations, the applicant notes that these have not been relied upon in respect of the project itself. Instead, the Climate Pledge demonstrates the company's global strategy.
- The grounds of appeal claim that the application overlooked the EU Energy Efficiency Directive and the EU Corporate Sustainability Due Diligence and Reporting Directives. The EU Energy Efficiency Directive was addressed in the RFI under Item 3(c), which notes that it complies with Article 8 of the Directive. The Corporate Sustainability Reporting Directive (CSRD) has not yet been transposed into Irish law and does not currently impose obligations on any company.
- Regarding the cumulative impact of the proposed development, the EIAR and amended EIAR submitted as RFI, addresses the predicted impact of a further potential future data centre building on a wider landholding within the relevant sections dealing with cumulative impacts. The potential future phase of development is addressed as far as practicably possible, as established in the court judgement in *Fitzpartick v An Bord Pleanála* [2019] IESC 23.
- The appellant objects to the use of Guarantees of Origin (GOs) for the previous phases of development and is of the opinion that GOs are not effective in providing a GHG offset for the purchaser. The applicant notes that the applications referenced in the appeal relate to historic development on the site and as such are not relevant to the subject application. The main mitigation proposed in relation to energy use and climate is the engagement

with CPPA for the development. This will provide ‘additionality ‘as set out in detail by the applicant.

### 9.3. **Planning Authority Response**

- A response was received from the PA on the 17<sup>th</sup> of November 2023. The PA note that the detailed assessment of the planning application considered and had regard to all relevant national, regional and local policy, potential environmental impacts and impacts on the amenities of the area. The proposed development was deemed acceptable within this policy context and with the proper planning and sustainable development of the area. The Board is requested to uphold the decision of the PA and to apply the Council’s Section 48 Development Contribution Scheme as appropriate.

### 9.4. **Observations**

Four observations were received within the statutory time frame and are summarised below.

#### **Martin Knox**

- Condition No. 13 of the PA’s decision is not comprehensive enough to contribute to sustainable development.
- Fossil fuel dependence will increase unless the CPPA is transparent and the renewables are ‘additional’ to those already planned or in planning, and unless the use of gas/diesel engines are banned from the site.
- The observer is concerned about wider ethical issues regarding the corporate policies of the applicant.
- Ireland already has a large number of data centres. There is a concern that developments of this nature increase fossil fuel dependency and potentially make legal compliance with 2030/2050 targets impossible.

#### **DAA**

- DAA request that their original submission to the PA regarding the proposed development is considered by the Board. It is also requested that the Board

attach condition 21 of the PA's decision, which relates to the use of cranes during construction, should they be minded to grant permission.

### **Kieran Cummins / Eco Advocacy**

- A full list of all data centres in the state, both operating and permitted, should be provided to the authorities and the public.
- A full analysis of the energy requirements of all functioning, permitted and proposed data centres should be provided.
- A complete energy and carbon audit should be carried out to assess the full impact of the proposal. This should include the mining of resources and rare earth metals, aggregates and steel as well transportation and construction impacts.
- It is projected that data centres will account for 30% of Irelands energy in the years to come, which is unsustainable.
- The proposal for diesel generators is unacceptable as they rely on fossil fuels.
- Data centres provide low levels of employment in comparison to the space and energy they consume.
- The proposal is developer led rather than plan led, which is advised in the Government Statement on the Role of Data Centres in Ireland 2022.
- The proposal will add significant levels of GHG to the national levels and is incompatible with national and international climate commitments.
- Reference is made to the 2023 EU Renewable Energy Directive.
- It is submitted that any additional energy demand from the industrial sector that is not 100% renewable, increase the decarbonisation burden on others. The EIAR does not deal with this issue.
- Little progress is being made in adding new wind power to the transmission system.
- Buying renewable energy on another continent and offsetting against power used in Ireland is not transparent or effective. The Government has issued a

policy statement on Power Purchase Agreements under the *Renewable Electricity Corporate Power Purchase Agreements Roadmap, (March 2022)*.

- There is insufficient information on the cumulative use of energy by the data sector in Ireland, including the energy consumed by on-site generation.
- There is insufficient information to assess the application in accordance with the EIA Directive and the Energy Efficiency Directive. The Board should determine where the additional thermal power plant to fuel the development will be located; whether the waste heat from the additional thermal demand will be used; whether alternative locations would have better options for decarbonisation; whether the use of geothermal energy was considered and whether power purchase agreements for green hydrogen and green biogas were considered.
- There is insufficient information to determine if other data installations and industrial facilities already granted planning permission would be delayed in connecting to the grid on a non-firm basis, which would cause increased and prolonged emissions.
- Consideration should be given to the use of water in the data centres and how it is disposed of.
- The Board is requested to satisfy itself that the application is in accordance with EU law with respect to the EIA Directive and with Article 6 of the Habitats Directive 92/43/EEC, the Birds Directive and the SEA Directive. The observer lists cases from the European Court of Justice that they consider relevant.
- Data centres pose a major security issue and could be prone to cyber or other threats. They could also be at risk from fires.
- Ireland does not have the capacity to meet its Paris Agreement 2015 targets and the national obligations under the Climate Action and Low Carbon Development (Amendment) Act 2021 if permissions are granted for data centres which increase the use of fossil fuels.
- The Government Statement of Data Centres 2022 was not subject to SEA and therefore cannot be relied on. The proposal has not been addressed

under the Water Framework Directive. There is no national policy supporting the development and it is therefore premature.

- The direct and indirect cumulative effects are unsustainable and wholly inappropriate.

### **John Callaghan – Sustainability 2025**

- The observer included details of their previous correspondence with the PA which includes reference to the public consultation phase when the applicant's response to further information was lodged with the PA.
- The observer refers to EIA Directive and the information referred to in Article 5(1) and submits that the information contained in the EIAR is lacking.
- The observer puts forward what they deem to be, conflicting figures for energy usage and that the predicted amounts could not be supplied through wind energy alone. This would necessitate the use of fossil fuels.
- The observation also highlights information that they consider to be lacking from the EIAR such as where the additional thermal power plant to generate power for the development would be located. It is put forward that this information is required so that alternatives under the meaning of the EIA Directive can be considered.
- The observer submits that it is reasonable for the EIAR report to consider powering the proposed data centre on each of the renewable energies set out in Article 1 of the *Renewable Energy Directive (EU/2023/2413 / RED III)* and considering alternative locations that would avail of matching the generation profile of renewable energy to the consumption profile of the data centre proposed. The judgement of the CJEU in *Holohan v An Bord Pleanála* [C41/17] is referenced in this instance.
- Government policy on renewable power purchase agreements is set out in the '*Renewable Electricity Corporate Power Purchase Agreements Roadmap (March 2022)*'.
- The Non-Technical Summary of the EIAR refers to a power consumption of 219.7MW. On-site generation with an output of 219.7MW generated with any technology other than Combined Cycle Turbines would require a thermal input

of 440Mw to 550MW. This level of power generation would bring the project within the scale and jurisdiction of the Strategic Infrastructure Act 2006 as the thermal input would exceed 300MW.

- The proposed development is not compatible with Irish and EU Climate Policy or Law. Ireland has not published a Long-Term Climate Strategy which is required under Article 15 of Regulation (EU) 2018/1999. In the absence of a Long-Term Climate Strategy, which has been approved by the EU Commission, it is not possible to assess the proposed development for compliance with Government Policy.
- Any grant of permission should be conditional on 100% renewable power that geographically matches renewable power generation to project power consumption and the useful use of waste heat associated with any increase in thermal power generation.
- The Climate Action Plan 23 targets for 2030 are challenging having regard to progress made to date. European Climate Law sets a legally binding target of net zero GHG emissions by 2050.

Planning documents refer to the design being of a preliminary nature which is not lawful under Sweetman No. 1, Sweetman No. 2 and Balcadden Road Residents v An Bord Pleanála. (I note that the observation does not state which planning documents they specifically refer to in this point).

#### 9.5. Further Responses

- **Fingal County Council** – Response received on the 27<sup>th</sup> of May 2024 – No further comments.
- **Jerry McEvilly – Friends of the Earth** – Response to applicant’s submission received on the 24<sup>th</sup> of May 2024 – The appellant comments on the technical response provided by the applicant. No new issues are raised.
- **Colin Doyle** – Submissions received on the 28<sup>th</sup> of May 2024 & the 29<sup>th</sup> of May 2024 in response to the applicant. In the response received on the 28<sup>th</sup> of May the appellant reiterated points which were made in previous submissions. No new issues were raised. The submission disagrees with the information

submitted by the applicant and queries the assertion that there is a contract in place since 2017 and that the energy requirements of the buildings have been factored into the CAP 23. The appellant also refutes the claim that Eirgrid entered into a commercial contract which would reserve capacity for a customer over a 7-year period and notes that no details of the contract have been provided by the applicant.

- The submission received on the 29<sup>th</sup> of May 2024 included a comment on the EPA publication '*Ireland's Greenhouse Gas Emissions Projections 2023-2030*'. The appellant notes that EPA projections to 2030 indicate that there will be a significant breach of the legally binding national carbon budgets and that emissions from the electricity sector are projected to exceed its sectoral budget. The EPA had factored in all renewable electricity projections in CAP 24 which can be achieved by 2030. The applicant states that projected renewable electricity would therefore already encompass whatever CPPA could be arranged by the applicant.
- **John Callaghan – Sustainability 2050** – Response to applicant's submission received on the 4<sup>th</sup> of June 2024. No new issues raised.
- **Dr. Sarah Zimmerman** – Fingal One Future – Response received on the 3<sup>rd</sup> of June 2024. Comments made on the applicant's submission. No new issues raised.
- **Martin Knox** – Submission received on the 14<sup>th</sup> of June 2024. No new issues raised. The appellant references the EPA Report, '*Ireland's Greenhouse Gas Emissions Projections 2023-2030*' and submits that the increase in energy demand from high energy projects would result in Ireland not achieving its carbon emissions targets for 2030.
- **John Callaghan** – Submission received on the 19<sup>th</sup> of June 2024. No new issues raised.
- **Fingal County Council** – Submission received on the 19<sup>th</sup> of June 2024. The PA have no further comment to make.

- **The Applicant** – response submitted on the 21<sup>st</sup> of June 2024. The response includes a technical document specifically responding to the submission made by Dr Colin Doyle on the 28<sup>th</sup> of May 2024.
- The applicant’s response includes three technical reports which include an updated statement on consistency with Section 15(1) of the Climate Act having regard to the CAP 2024 and the publication of the National Adaptation Framework (NAF) which was published on the 5<sup>th</sup> of June 2024, a technical note on the cumulative impacts of the development in combination with development on the BMS site permitted under FW23A/0342, and a technical note setting out how the EIAR and response to third party appeals have taken account of uncertainty in line with the relevant guidance.
- **Jerry MacEvilly - Friends of the Earth** – Submission received on the 21<sup>st</sup> of June 2024. No new issues raised. The appellant supports and agrees with the submission made by Colin Doyle on the 28<sup>th</sup> and 29<sup>th</sup> of May 2024.
- **John Conway & Louth Environmental Group** – Submission received on the 24<sup>th</sup> of June 2024. No new issues raised. Reference is made to the EPA Report, *‘Ireland’s Greenhouse Gas Emissions Projections 2023-2030’* which states that Ireland will not meet its national and EU climate targets.
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## 10.0 Assessment

### 10.1. Principle of Development

- 10.1.1. The proposed development for a data centre is in accordance with the HT – High Technology, zoning objective for the site which seeks to, *‘Provide for office, research and development and high technology/high technology manufacturing type employment in a high quality built and landscaped environment zoning objective’*. The principle of the use has already been established on the site which currently has three data centre buildings in operation on the site. A masterplan for the overall development of the site was prepared and submitted with the first phase of development, which was permitted under **ABP Ref. PL06F.248544**. I am satisfied that the proposed development is consistent with the original masterplan for the site

and that the principle of the development can be considered within the context of the zoning objective subject to the policies and objectives of the Development Plan and relevant national policy.

10.1.2. Objective **DMS092** relates to space extensive developments, which includes data centres. The full text of the requirements of this objective is contained in Section 6.2 of this report. In summary the objective requires applicants for such developments to address how they can provide energy efficiency measures, the extent of energy demand and supply capacity availability, the availability of appropriate infrastructure, measures to support the circular economy, measures to facilitate district heating, a high quality design approach to the building, details of employment numbers and traffic, evidence of participation with the Climate Neutral Data Centre Pact, a decommissioning report (if required) and compatibility with the Government statement on data centres.

10.1.3. The PA were satisfied that the application had addressed the requirements in Objective **DMS092**. An energy statement was submitted which contains information regarding the energy requirements of the building/development and how measures to reduce energy use would be implemented into the design. The applicant states that the building is designed to fully comply with the Climate Neutral Data Centre Pact and the development would have an annualised design Power Usage Effectiveness (PEU) of 1.12. As the PUE is based on a ratio, the closer the number is to 1.0, the more energy efficient the data centre. A PEU of 1.3 is set by the Climate Neutral Data Centre Pact. The building would have a PV array on buildings E and F, (285 PV modules yielding a total peak power generation of 85.5kWp) to match the lighting and IT requirements of the buildings. A rainwater harvesting system would be installed to reduce the water requirement from the public mains and to provide water for the cooling systems. The buildings are designed to harvest rainwater for up to 100% off the annual process water requirements and includes 2170m<sup>3</sup> of storage. The data storage rooms are designed to be cooled with fresh air which would be sufficient for the majority of the annual running hours. Internal and external lighting would use high efficiency low energy LED lighting. A supply agreement has been signed by the applicant with a supplier of HVO diesel to power all the back-up generators for the site. Design provisions have been incorporated throughout the site to facilitate district heating for a local user or for a future heat

network. This appears to be consistent with the EU Energy Efficiency Directive on Buildings.

- 10.1.4. An EIAR was submitted with the application and set out details regarding the projected employment numbers, traffic to and from the development and visual impact. I have addressed these issues under the relevant headings in Section 11.0 below.
- 10.1.5. As the proposed development is on an operational site with an existing high energy demand, the power for the development would be supplied by a 220kV transmission line and a 220kV Gas Insulated Substation on the site which was approved under **ABP-306834-20**). The applicant submits that the energy demand for the proposed development, along with existing and future development on the site, has been accounted for in national targets as a contract with EirGrid to power the development has been in place since 2017. Regarding demand capacity, the applicant states that the energy demand for the development has also been factored into the Sectoral Emissions Ceilings which have been carried forward into the relevant CAPs. The Government's '*Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings (2022)*' provides details of the analysis and research that informed the preparation of the sectoral emissions ceilings. For the electricity sector, demand growth was assumed in line with the median growth scenario projected by the EirGrid Generation Capacity Statement 2020 to 2029. The demand growth forecasted in the '*Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings 2022*' is influenced by several factors including contracted data centre capacity. This was considered in developing the sectoral emissions ceilings and therefore includes the growth of data centres with contracted demand such as the subject proposal. Therefore, it would appear that the demand from the proposed development has been factored into the demand projections and the sectoral emissions ceilings and as such, it does not represent additional demand.
- 10.1.6. The applicant has also committed to entering a CPPA to offset the energy demand of the proposal with renewable energy. The use of CPPA as a mitigation measure forms part of the appeal and is dealt with in detail in Section 11.10 – Air Quality and Climate of the EIAR assessment below. Development Plan objective DMS092 also requires that the proposal should address principles for Sustainable Data Centre Development as per the *Government Statement on the Role of Data Centres in*

*Ireland's Enterprise Strategy (July 2022)*, which will be reviewed in the following section of the report.

10.1.7. Having reviewed the application details, I am satisfied that the proposed development is generally in accordance with Development Plan policy as it relates to data centres. I also note that the Fingal Climate Action Plan contains an objective to deliver a district heating system in Blanchardstown, which the applicant can facilitate. As the district heating project is in the preliminary stages, the savings in terms of a reduction in GHG emissions has not been quantified at this stage.

## 10.2. **Compliance with National Policy –**

10.2.1. The *Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, 2022*, (hereinafter the Government Statement), acknowledges that data centres comprise core digital infrastructure and play an indispensable role in our economy and society but that constraints in the electricity system will result in limited capacity for further data centre development in the short term. The Government has agreed a set of six national principles that should inform and guide decisions on future data centre development. The six principles are detailed in Section 6.2 of this report but in summary the main considerations relate to Economic Impact, Grid Capacity and Efficiency, Renewables Additionality, Co-location or Proximity with Future-Proof Energy Supply, Decarbonisation by Design and SME Access and Community Gain.

10.2.2. The application has addressed their compliance with the Government Statement in Section 7 of the Planning Report accompanying the application, in the FI response to the PA and in the response to the appeal. The principles outlined to guide decisions on data centre development are examined in sequence below.

10.2.3. **Economic Impact** – The Government prefers data centre developments associated with strong economic activity and employment. Whilst the statement favours development in regional locations, it also notes that in assessing the economic benefit, the totality of the Irish-based economic activity should be considered. The applicant, Amazon Web Services (AWS) is a subsidiary of Amazon and is an established multi-national provider of cloud computing services. In their response to the appeal, the applicant appended a copy of their economic impact and

employment report from 2023 which was prepared by economic consultants. The findings of the report are outlined in the response and detail the number of direct and indirect jobs in Ireland as a result of the operations and also the level of inward investment at the time of writing. In summary the applicant states that they support more than 10,000 jobs in Ireland, including over 4,200 direct employees, 3,000 employees working for suppliers and sub-contractors and 2,900 jobs linked to their Irish investments. Following construction, an AWS data centre would support over 250 full time roles on an annual basis with a total economic output of €381 million annually.

10.2.4. The grounds of appeal argue that the development would provide a low intensity of job creation as the number of people working directly on the development site would be low. I accept that the nature of the development does not require large level of direct manual input during the operational stage and that the level of employees on the site would be low in comparison to the scale of the buildings. However, I also accept that the argument put forward by the applicant that the appeal does not consider the number of secondary employments supported by the company in terms of suppliers and service providers. It is also relevant to acknowledge the potential for economic benefit to the customers of the service who may be involved in enterprise. On this basis I am satisfied that the proposed development would be in accordance with the principle of providing a positive economic impact based on the scale of the operation, the level of inward investment provided and the number of direct and indirect jobs to be provided.

10.2.5. **Grid Capacity and Efficiency** – a preference for data centre developments that make efficient use of the electricity grid, using available capacity and alleviating constraints. This is in line with the CRU Direction to the System Operators related to Data Centre grid connection processing (CRU/21/124).

10.2.6. The constraints of the national energy supply are noted. A connection agreement with EirGrid has been in place for the masterplan site since 2017 and remains valid. The applicant notes that the agreement has been amended since it was originally made to allow for incremental increases, or ‘ramping-up’ of supply on an annual basis. The original agreement required all the power to be made available when the 220kV substation on the site came into operation. The revised agreement sought incremental provision of power to ensure that power was only requested when

required. As a result of the connection agreement, the applicant argues that the overall energy demand for the entire site has been factored into the Transmission System Operators forecast and does not represent 'new' demand or a new connection. The applicant also notes that the CRU Direction does not apply in this instance as the connection agreement pre-dates the Direction.

10.2.7. It is also stated that the energy demand for the development has been factored into the Sectoral Emissions Ceilings which has been carried forward into the relevant Climate Action Plans, including the most recent CAP 2024.

10.2.8. In consideration of the historical context of the overall development site, for which a connection agreement is already in place, I am satisfied that the demand for the proposed development has been factored in the system operators contracted demand forecast and does not represent a new connection or demand. I also consider that the agreement to incrementally increase the energy demand as needed demonstrates flexibility in managing the demands on the grid.

10.2.9. **Renewables Additionality** – a preference for data centre developments that can demonstrate the additionality of their renewable energy use in Ireland, whether through new generation, repowering or otherwise increasing in-country renewable energy capacity proportionate to the impact of their energy demand. The issue of 'additionality' is included in the grounds of appeal and is dealt with in Section 11.9 below in assessing the mitigation measures proposed in the EIAR.

10.2.10. In the appeal, it is argued that 'additionality' of renewable energy can only be secured whereby a project is delivered through collaboration with the data centre provider that would not have been delivered otherwise. The appellant objects to the use of 'additionality' being applied in instances whereby an agreement is entered into for renewable energy to be supplied from projects that were in the design or planning stage as these projects would have been delivered anyway and such an agreement diverts renewables from the national grid to a single corporate development. The Government Statement does not expand on the definition of 'additionality' but indicates that additionality can be provided *'through new generation repowering or otherwise increasing in-country renewable energy capacity...'*. Whilst the CRU Direction referenced above, (CRU/21/124), relates to new connection agreements, it is worth noting that one of the recommended assessment criteria for System

Operators to determine whether a connection offer can be made is *'the ability of the data centre applicant to bring onsite dispatchable generation (and/or storage) equivalent to or greater than their demand...in order to support security of supply'*. I consider this point to be relevant to Renewables Additionality as it implies that the generation of renewable energy to offset the demands of the LEU or data centre can be considered to be 'additional' to the that provided by the national grid.

10.2.11. The connection agreement with EirGrid pre-dates this requirement, however, the applicant has committed to entering into a CPPA with a renewable energy provider to offset their energy demand. This was outlined in the application details whereby the applicant welcomed a planning condition that required such an agreement. A planning condition of this nature was duly applied to the PA's decision to grant permission. The condition requires that the renewable energy supply shall not be subsidised, shall be located in Ireland, shall be provided by the applicants group, shall relate to energy that is not being generated at the date of the grant of permission, that the energy provided shall be equal to or greater than the energy requirement of the development and shall be fully operational prior to commencement of the development. On this basis I am satisfied that the principle of renewables additionality can be achieved in accordance with the Statement.

10.2.12. **Co-location or Proximity with Future-Proof Energy Supply** – There is a preference for data centre developments in locations where there is the potential to collocate a renewable generation facility or advanced storage for the data centre, supported by a CPPA, private wire or other arrangement. The location of the proposed development in a built-up, urban settlement does not allow for co-location of renewable energy supply and the proposal does not include any provision for on-site battery storage. However, the statement also encourages the co-location of 'downstream' value-adding activities such as district heating schemes. The proposed development and the wider development site would have the infrastructure to provide a district heating scheme, and the applicant has been in discussions with Codema regarding the implementation of the 'Blanchardstown District Heating Scheme'. Phase 1 of this scheme seeks to supply space heating and hot water to a university campus, public hospital and a national sports facility campus.

10.2.13. I note that the Fingal Development Plan and the Fingal Climate Action Plan both contain objectives to promote the delivery of district heating in the

Blanchardstown/West Dublin area. Whilst the development is not in a position to co-locate with a renewable energy facility, they can provide a secondary use for the carbon consumed through the delivery of a district heating system, which is in accordance with the Statement. The grounds of appeal raised a query as to the practical viability of the proposed district heating system. In response the applicant provided details of a similar scheme operating from their data centre in Tallaght which provides heat to public buildings. I am satisfied that the provision of a secondary use for heat generated by the development is in accordance with the principle to future-proof energy supply for buildings currently supplied from fossil fuels or the national grid.

10.2.14. **Decarbonised Data Centres by Design** – a preference for data centre development that can demonstrate a clear pathway to decarbonise and ultimately provide net zero data services. It is expected that data centres will align with the EU Climate Neutral Data Centre Pact energy efficiently and water use targets and set themselves targets to achieve zero-carbon electricity use at all hours. The application and response to the ground of appeal sets out the applicants' corporate commitments to reducing carbon emissions which include a commitment to reach net zero emissions by 2040 under The Climate Pledge and a commitment to become water positive, (i.e. when large corporate consumers identify where water scarcity is an issue and to minimise the negative impacts associated with the use of water), by 2030. The applicant is a founding member and a signatory of the Climate Neutral Data Centre Pact and states that the development fully complies with the requirements of the pact. Measures to reduce the energy and water use of the development have been adapted into the design and include the use of PV panels, rainwater harvesting for cooling, the use of HVO diesel to power the generators and designing the buildings to a high standard of energy efficiency. Measures to reduce the operational carbon emissions include the use of CPPA to provide renewable energy for the project.

10.2.15. **SME Access and Community Benefits** – a preference for data centre developments that provide opportunities for community engagement and assist SMEs, both at the construction phase and throughout the data centre lifecycle. The Planning Report that accompanied the application outlines the range of community benefits and benefits to SMEs associated with the development. These include

setting up a fund that would be managed and administered by a non-profit organisation to fund community projects and undertaking voluntary work for local causes and community initiatives. I am satisfied that the applicant has demonstrated that they can comply with this principle.

### 10.3. The Climate Act & Targets

- 10.3.1. It is argued in the appeal that the applicant placed undue weight on the inclusion of the indirect emissions from the operational phase of the development in the EU Emissions Trading System (ETS) and that the obligation to comply with national climate targets and sectoral emissions ceilings was overlooked. It is also argued that the information submitted under FI states that the indirect electricity emissions and direct emissions from site operations would be compliant with of CAP 23 (Section 13.3.5 of same) by virtue of their requirement for GHG permits under the ETS.
- 10.3.2. The most relevant EU policy for the subject proposal is the EU ETS which covers emissions of Carbon Dioxide CO<sub>2</sub> from power and heat generating facilities as well as energy-intensive industry sectors. As the proposed development, and the overall masterplan project, will have a thermal input greater than 20MW, a GHG emission permit is required from the EPA. This permit will allow for monitoring, reporting and verification of emissions which is required under the EU-wide Emission Trading System (ETS).
- 10.3.3. For activities that are outside of the ETS, the EU Effort Sharing Regulation (ESR) applies. The ESR sets binding annual GHG emission targets for Member States for the reduction of GHG emissions to 2030 and includes domestic transport, buildings, agriculture, small industry and waste. Irelands 2030 target under the ESR is to reduce its GHG emissions by at least 42%. To achieve net zero economy by 2050 the *Climate Action and Low Carbon Development (Amendment) Act 2021* provides for the establishment of carbon budgets as interim milestones on this trajectory. Each budget spans a 5-year period with the second budget expiring in 2030. A 51% reduction in GHG emissions was set as a budget target to 2030.
- 10.3.4. In their response to the appeal, the applicant notes that both national and EU legislations are relevant when assessing direct and indirect GHG emissions. Both

legislative jurisdictions share the ultimate goal of net zero GHG emissions to 2050. Subsequently, due weight was placed on both systems in the application and in the assessment of climate impact. In Section 7.2.4 of the addendum EIAR, both the proposed development and the overall masterplan development were assessed in the context of both the 2030 ETS allocation and in terms of the 2030 Sectoral Emission Ceiling. The results of which are set out in Table 1.10 of the addendum. The applicant states that the approach was based on determining which target was more onerous in terms of impact of the development. This was found to be the Sectoral Emission Ceiling, and the impact of the assessment was based on both the pre- and post-mitigation impact of the development relative to the Electricity Emission Ceiling.

10.3.5. The climate assessment is considered and evaluated in full in Section 11.10 of this report under the assessment of the EIAR. In terms of the assessment, I am satisfied that both legislative systems were considered by the applicant. The information submitted clearly explains that the nature of the development will be part of the EU-wide ETS but the impact of the proposal on national targets under the relevant Sectoral Emission Ceiling is also considered and set out in Table 1.10 of the addendum EIAR. On this basis, I accept that the applicant did not give undue weight to EU targets in the assessment and that both national and EU requirements were considered.

#### 10.3.6. **The Climate Act**

10.3.7. The grounds of appeal raise concerns that the proposed development is not in accordance with Section 15 of the Climate Action and Low Carbon Development (Amendment) Act 2021 which states that,

*A relevant body shall, in so far as practicable, perform its functions in a manner consistent with,*

*(a) the most recent approved climate action plan,*

*(b) the most recent approved national long term climate action strategy,*

*(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*

*(d) the furtherance of the national climate objective, and*

*(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.”.*

10.3.8. At the time of writing, the relevant documents include the 2024 CAP, Ireland’s Long-term Strategy on Greenhouse Gas Emissions Reduction 2024, National Adaptation Framework 2024 and the Sectoral Adaptation Plan – Electricity 2019.

10.3.9. In response to the appeal the applicant outlines how the proposed development aligns with the relevant plans and strategies at the time the application was made. Since then, a new CAP and a new Long-Term Strategy have been adopted. A second iteration of the Sectoral Adaptation Plans is due in 2025. I have reviewed the relevant plans and strategies and in terms of direct interaction with the proposed development and I consider CAP 24 to be the most applicable in this instance. The National Adaptation Framework and the Sectoral Adaptation Plan both address the impacts of climate change and how various sectors, such as energy providers, can adapt to the growing uncertainties resulting from extreme weather events and other disruptions. The EIAR for the development has addressed how the individual development has been designed to consider climate change in terms of flood risk and the risk of accidents.

10.3.10. The applicant submits that the development is in accordance with CAP 23, (which was the relevant plan at the time), as the plan seeks to moderate growth of data centres rather than apply a moratorium. The applicant also states that as a connection agreement for the development has been in place since 2017, its energy demand has been factored into the CAP as ‘existing demand’ and it does not represent new growth in demand. In terms of compliance with the Long-Term Strategy on the reduction of GHG emissions 2023, the applicant submits that the measures employed to reduce GHG emissions from the development align with the pathway set out in the Strategy for data centres and LEUs.

10.3.11. I note that CAP 24 has carried forward the renewable energy targets for 2030 for onshore wind generation (9GW), offshore wind generation (at least 5GW) and solar capacity (to 8GW) from CAP 23. Whilst CAP 24 recognises that there has been a significant increase in the share of renewable electricity generation between 2005 and 2022, it also recognises that the scale of the challenge to meet the sectoral emissions ceiling is immense. Section 12.4.1 sets out the ‘Measures to Meet the

Challenge' which include three key measures – to accelerate and increase the deployment of renewable energy to replace fossil fuels, deliver a flexible system to support renewables and demand and to manage demand.

10.3.12. In terms of the applicant's responsibility in compliance with CAP 24, I note that many of the measures relating to the Electricity section of CAP 24, (Chapter 12), relate to policy and regulatory interventions to increase renewable energy and to manage demand. I have reviewed the application details, and I am satisfied that the applicant has put in place mechanisms that would facilitate or align with the measures outlined. I accept that the energy demand from the development has been factored into the national projections and that the proposal does not represent unaccounted or new demand. The applicant has indicated that they will enter a CPPA which could accelerate the delivery of renewables to the market and that the increase in demand will be incrementally increased. Corporate policy to decrease carbon emissions on an EU and international level is also noted.

10.3.13. The appellants submit that the very nature of the development would present a barrier to the furtherance of the national climate objective and to the objective of mitigating greenhouse gas emissions. It is argued in the appeal that the energy required to fuel the proposal would absorb a significant amount of the remaining carbon budget to 2030 and would result in the production of GHG emissions over and above those permitted under legally binding EU targets.

10.3.14. Regarding the national climate targets, CAP 24 – notes that under the EPA's projections, emissions in the first two carbon budgetary periods (2021- 2025 and 2026-2030) are expected to exceed their limits by a margin of 24%-34%, with the sectoral emissions ceilings for both budgetary periods projected to be exceeded in almost all sectors including: electricity; industry; transport; and agriculture. However, the EPA's projections report also indicates that if all the unmodelled measures in CAP23, and the yet unallocated emissions savings, were accounted for, the projected emissions reduction in 2030 would be 42%, 9 percentage points below our 2030 target. CAP 24 sets out further policies, measures and actions to close this gap and ensure compliance with our carbon budgets and sectoral emissions ceilings as adopted by the Government in 2022. For electricity these include, developing a methodology to incentivise and enable industrial heating facilities to participate in

flexible demand initiatives from 2024 and the issuing of a recommendations paper on market options to incentivise Long Duration Energy Storage.

10.3.15. The challenges in achieving the climate targets are acknowledged and are well documented in Government policy. However, Government policy also acknowledges that whilst data centres are energy intensive developments, they are also central to Ireland's economic and digital future. On this basis, guidance recommends that each application is assessed on its merits. I have assessed the proposed development, and I am satisfied that the projected demand has been factored into the overall national energy demand projections which formed the basis of the Sectoral Emissions Ceilings which have been carried forward to the Climate Action Plan 2024. As such the proposed would not represent an additional and new demand in terms of energy supply. I also accept that the proposal has applied all available design and mitigation measures to reduce the energy consumption of the development and as such it would comply with national policy to reduce the overall energy demand of the project in line with a view to net zero.

10.3.16. The grounds of appeal also submit that the application overlooked EU Directives, including the Energy Efficiency Directive, (EED), the Corporate Sustainability Reporting Directive (CSRD) and the Directive on Corporate Sustainability Due Diligence (CSDD). The applicant notes that the EED was addressed under the FI response to the PA, which states that they are compliant with Article 8 of the EED, which requires large enterprises to be subject to energy audits. I note that the CSRD and the CSDD are not yet transposed into Irish law. Notwithstanding this, none of the Directives listed above are considerations for the Board under their assessment of planning considerations for the development proposal.

#### 10.4. **Appropriate Consent Mechanism**

10.4.1. The grounds of appeal queried whether the proposed development should be dealt with through the Strategic Infrastructure Act. The appellant noted that Non-Technical Summary of the EIAR refers to a power consumption of 219.7MW. On-site generation with an output of 219.7MW generated with any technology other than Combined Cycle Turbines would require a thermal input of 440Mw to 550MW. This

level of power generation would bring the project within the scale and jurisdiction of the Strategic Infrastructure Act 2006 as the thermal input would exceed 300MW.

10.4.2. The application states that the entire masterplan site would have a total energy demand of 219.7 MW. This demand would be fuelled from the national grid and/or using renewable energy which would be required under a CPPA. Both the national grid and the renewable energy developments would be subject to their own development consent processes, which may or may not represent Strategic Infrastructure. I am satisfied that the proposed development does not meet the thresholds for Strategic Development as set out in Schedule 7 of the Planning and Development (Strategic Infrastructure) Act 2006 as it would not have a *'combustion installation with a total energy output of 300 megawatts or more, or an industrial installation for the production of electricity, steam or hot water with a heat output of 300 megawatts or more'*. Therefore, I consider the development consent process applied for is the appropriate consent mechanism for the proposed development. EIA Structure

## 11.0 EIA Structure

11.1.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European Directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

a. Consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and

b. Includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

This EIA section of the report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- Population and human health,
- Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- Land, soil, water, air and climate,
- Material assets, cultural heritage and the landscape,
- The interaction between the above factors, and
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Boards decision, should they agree with the recommendation made.

## 11.2. Issues Raised in the Respect of EIA

11.2.1. Issues raised in respect of EIA by parties to the appeal/application are:

- **Deficiencies in the Climate Impact Assessment** – The grounds of appeal contend that the EIAR was based on an unrealistic ‘best-case’ scenario of 80% renewables in the grid in 2030. Therefore, the methodology and predicted impact is flawed and is not in accordance with IEMA guidance (which states that any development which results in emissions not consistent with a pathway to net zero must be considered to have a ‘significant adverse impact’). The appellant put forward an alternative ‘worst-case’ scenario based on the data centre being fully fuelled by fossil fuel power stations. The

revised EIAR predicted a 'Moderate Adverse' impact – a realistic 'worst-case' scenario with four times the emissions would be a 'Major Adverse' impact.

- **Cumulative Impact of Data Centres** – Third parties argue that the cumulative impact of data centres and large energy user developments was not properly assessed in the EIAR. The EIAR addressed the impact of indirect emissions from power plants only in the context of activities within the physical boundary of the site. A wider assessment of known projects would be more accurate.
- **Air Quality** - Regarding Table 9.9 of the applicants EIAR, the appeal submits that the additional information on emissions is not clear or sufficient. The applicant has not addressed in sufficient detail the impact and mitigation measures associated with the level of NO<sub>2</sub> from the back-up generators for the proposed and permitted generators and emissions from the neighbouring BMS and Alexion facilities.

The EIAR lacks clarity on how air quality impacts will be mitigated to ensure compliance with air quality standards and associated monitoring requirements.

- The information is not sufficient to determine that the development will not result in significant adverse impacts on biodiversity and ecology in the area due to the construction, operation, traffic and use of diesel generators.

**Human Health** – The potential for adverse health impacts for local communities and schools from the construction, emissions and air pollution from renewable diesel (in particular) in the Blanchardstown and Kilshane areas.

- **Biodiversity and Ecology** – Third parties submit that the impact of the proposal on biodiversity and ecology was not sufficiently addressed.
- **Water** - The impact of the development was not considered within the context of the Water Framework Directive.
- **Mitigation Measures** – The appropriateness of the mitigation measures proposed were queried with specific reference to the use of CPPA and HVO fuel. It was also submitted that the indirect effects of renewable projects

elsewhere which are required to support the development were not considered.

In their initial assessment of the application the PA considered that the EIAR had lacunae and further information was requested. Regarding the information contained in the EIAR the PA requested the following,

- Updated assessments which feed into the baseline environment for soils, land, geology and hydrology, which relied on surveys carried out in 2016.
- Clarity on the modelling assumptions used to inform Table 9.9 – NO<sub>2</sub> Dispersion Model Results. The PA considered it was unclear if the table related to emissions during testing and/or emergency operations, as no outputs to the modelling results for the testing scenario were provided.
- The PA requested an update to the climate impact assessments in the EIAR to have regard to the IEMA EIA Guidance on Assessing GHG Emissions (2022) and to revise the potential impact rating (i.e. In the absence of mitigation) based on this guidance. The applicant was also requested to include mitigation that would have the effect of reducing indirect carbon emissions during the operational phase. An updated assessment of residual impacts was also requested.
- An assessment of the likely carbon to be generated during the construction phase was requested.
- The PA sought confirmation that scenario C in the noise assessment in Chapter 10 assessed normal operation cumulatively, with the weekly testing of generators and any additional noise arising from the quarterly load banking of generators as referred to in Chapter 9 of the EIAR.
- The PA requested a review of all other sections of the EIAR For completeness and to submit revised chapters where necessary.

In response to the FI request from the PA, the applicant submitted a Soil Quality Assessment (2023), a Geotechnical Factual Report, a Carbon Assessment report and an Addendum to the Air Quality and Climate Chapter of the EIAR. The additional information will be addressed in each of the relevant chapters below. The PA were satisfied that the response from the applicant had addressed the lacunae

identified. All chapters, including amendments will be assessed in the following sections.

**11.3. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001**

- 11.3.1. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.
- 11.3.2. The applicant’s EIAR is presented in one complete volume and uses a grouped format for each chapter. A Non-Technical Summary is provided at the start of the EIAR. All appendices and figures and tables are contained within the relevant chapters of the EIAR.
- 11.3.3. In the section below I assess compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended);

<b>Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)</b>
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b).
A full description of the proposed development is contained in Chapter 2. This chapter includes details about the development site, its location, site characteristics and development already permitted on the site. The proposed site infrastructure requirements and management systems are set out and include details on drainage, water supply and discharge, power supply and generation, security and transport. The operational phase of the project and its decommissioning is also described. Chapter 6 contains a description of the underlying geology, hydrogeology and groundwater and potential impacts from the development. (An updated Soil Quality Assessment Report was submitted under FI). Chapter 7 provides a description of the existing hydrology, surface water quality and flood risk. It also describes the surface water management for the development during construction and operation as well as water supply, foul drainage and wastewater management. Waste management during the construction and operational phases is described in Chapter 15. The description of the development and the information submitted through FI is sufficient to enable decision making.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).

Chapter 5 describes the significant effects of the project on Population and Human Health. Chapters 6 – 17 of the EIAR describe the significant effects on the environment as follows-

**Table 11.1.1 – Summary Table of Adequacy of Information on Likely Significant Impacts**

Technical Chapter	Description of Likely Significant Impacts	Adequacy of Information (Y/N)
<b>Chapter 5 Population &amp; Human Health</b>	Risk of Major Accident Hazard or Disasters – Section 5.3.3 Potential Impacts – Section 5.5 Remedial & Mitigation Measures – Section 7.6 – This section notes that mitigation measures to address potential impacts were assessed in Chapter 6 – Land, Soils, Geology & Hydrology, Chapter 7 – Hydrology, Chapter 9 – Air Quality & Climate, Chapter 10 – Noise & Vibration, Chapter 11 – Landscape & Visual and Chapter 13 – Traffic & Transport. Predicted Impacts – Section 5.7 Residual Impacts – Section 5.8 No specific Section in the Chapter on Cumulative Impacts. This is addressed in Chapter 16 of the EIAR.	Y
<b>Chapter 6 Land, Soils, Geology &amp; Hydrogeology</b>	Potential Impacts - Section 6.5, Remedial & Mitigation Measures – Section 6.6, Predicted Impact – Section 6.7, Residual Impact – Section 6.8, Cumulative Impacts – Section 9.9 An updated Soil Quality Assessment and Ground Investigation Report was submitted under FI	Y
<b>Chapter 7 Hydrology</b>	Potential Impacts – Section 7.5 Remedial & Mitigation Measures – Section 7.6 Predicted Impact – Section 7.7 Residual Impacts – Section 7.8 Note – A Site-Specific Flood Risk Assessment and a Water Framework Directive Assessment were appended to Chapter 7.	Y
<b>Chapter 8 Biodiversity</b>	Potential Impact– Section 8.5 Mitigation Measures – Section 8.6 Residual Impacts – Section 8.7 An Appropriate Assessment Screening Report was appended to Chapter 8	Y
<b>Chapter 9 Air Quality &amp; Climate</b>	Potential Impacts – Section 9.5 Remedial & Mitigation Measures – Section 9.6 Predicted Impact of the development – Section 9.7 Cumulative Impacts – section 9.8 Residual Impacts – Section 9.9 Further information was submitted on request from the PA to explain the methodology for the NO <sub>2</sub> modelling results in Table 9.9 of the EIAR.	Y

	An addendum report to Chapter 9 was submitted under FI and contained information on the Potential Impacts of the Proposed Development on Climate Change, Predicted Impacts of the Proposed Development on Climate Change Remedial and Mitigation Measures Residual Impacts Cumulative Impacts		
<b>Chapter 10 Noise &amp; Vibration</b>	Potential Impacts – Section 10.5 Remedial & Mitigation Measures – Section 10.6 Residual Effects - Section 10.8 An addendum to Chapter 10 was submitted as Further Information. An updated Noise Assessment was carried out to consider noise with future airport growth and to demonstrate how appropriate internal noise levels could be achieved.	<b>Y</b>	
<b>Chapter 11 Landscape &amp; Visual</b>	Likely Significant Effects – Section 11.5 Mitigation Measures & Monitoring – Section 11.6 Predicted Impacts – Section 11.7 Residual Effects – Section 11.8	<b>Y</b>	
<b>Chapter 12 Archaeological, Architectural and Cultural Heritage</b>	Potential Impacts – Section 12.5 Remedial & Mitigation Measures – Section 12.6 Predicted Impact – 12.7 Residual Impacts – Section 12.8	<b>Y</b>	
<b>Chapter 13 Traffic &amp; Transportation</b>	Potential Impacts – Section 13.5 Remedial & Mitigation Measures – Section 13.6 Predicted Impacts – Section 13.7 Residual Impacts – Section 13.8	<b>Y</b>	
<b>Chapter 14 Material Assets</b>	Potential Impacts – Section 14.6 Remedial & Mitigation Measures – Section 14.7 Predicted Impacts – Section 14.8 Residual Impacts – 14.9	<b>Y</b>	
<b>Chapter 15 Waste Management</b>	Potential Impacts – Section 15.5 Remedial & Mitigation Measures – Section 15.6 Predicted Impacts – Section 15.7 Residual Impacts – Section 15.8 A Resource and Waste Management Plan for Construction was appended to Chapter 15.	<b>Y</b>	
<b>Chapter 16 Cumulative Effects</b>	Potential cumulative effects are considered in Sections 46.2 – 16.12. Each environmental aspect (as they correspond with chapter headings) are assessed against the proposed development with any notable (large scale or significant environmental emissions) planned and permitted developments as set out in Section 16.1 of the chapter. Note- appeal submission on the 21 <sup>st</sup> of June 2024 addressed the cumulative impact of the BMS development. An update to all chapters was carried out in this submission.	<b>Y</b>	

<b>Chapter 17 Interactions – Interrelations between the Aspects</b>	Chapter 17 notes that interactions between the aspects are discussed in each of the individual chapters. Sections 17.2 - 17.8 consider interactions under the headings of Population & Human Health, Land Soils & Hydrology, Hydrology, Biodiversity, Noise & Vibration and Landscape & Visual Impact	<b>Y</b>	
<p>I note the issues raised by the appellants regarding the impact of the development on Air Quality and Climate. An assessment of the likely significant direct, indirect, and cumulative effects of the development is carried out for each of the technical chapters of the EIAR, including Chapter 9 – Air Quality &amp; Climate. Information submitted to the PA under further information and to the Board in response to the grounds of appeal, expand on the original content of the EIAR and will be addressed under the relevant headings below.</p> <p>I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.</p>			
<p>A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).</p>			
<p>The EIAR includes designed in mitigation measures and measures to address potential adverse effects identified in technical studies. These, and arrangements for monitoring, are contained in each chapter of the EIAR. See Table 8.1.1 above for the location of Mitigation Measures in each technical chapter of the EIAR. Mitigation measures comprise standard good practices and site-specific measures and are largely capable of offsetting significant adverse effects identified in the EIAR for the reasons stated in the assessment below.</p>			
<p>A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).</p>			
<p>Alternatives Considered are described in Chapter 4 and are summarised in Section 4.0 of the Non-Technical Summary. The Do-Nothing alternative is considered in each chapter of the EIAR. Alternative project locations were considered as part of the original planning application for the wider data centre campus permitted under ABP-PL06F.248544 / PA Ref. FW17A/0025. This assessment was reviewed and updated for the subject application and three sites were considered for the development, including roadways and parking. Two alternative layouts were considered for the buildings. The proposed layout was selected as it was found to be the most</p>			

practical configuration in consideration of the environmental sensitivity of the site's surroundings. In terms of processes and technologies the proposed development will use the same data server technology as currently used by the operator in the existing onsite facilities. Due to the nature of the development alternative technologies are considered on an ongoing basis with regard to generating efficiencies in technology and environmental impact. Two cooling systems were considered, and a Free Air Cooling system was chosen as it would have lower power and water consumption.

The main reason for opting for the current proposal was to minimise environmental effects. I am satisfied, therefore, that the applicant has studied reasonable alternatives in assessing the proposed development, has outlined the main reasons for opting for the current proposal before the Board and has taken into account the potential impacts on the environment.

**Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).**

A description of the baseline environment and likely evolution in the absence of the development.

A description of the baseline environment is included in each technical chapter of the EIAR.

A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved

The methodology employed in carrying out the EIA, including the forecasting methods is set out, in each of the individual chapters assessing the environmental effects. The applicant has indicated in the different chapters of where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA. I comment on these, where necessary in the Summary Table below and for the reasons stated, I am satisfied that forecasting methods are adequate as outlined in Table 11.1.2.

<b>Table 11.1.2 – Summary Table of Adequacy of Forecasting Methods Used</b>	
<b>Chapter 5 - Population and Human Health</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No Forecasting carried out for this chapter. Impacts on Human Health occur from water, air quality, noise, vibration and traffic. Forecasting is addressed in each of the technical chapters. Sources of information are listed in Section 5.2.2.	None reported.
<b>Chapter 6 – Land, Soils &amp; Hydrogeology</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No specific Forecasting was carried out for this Chapter.	None reported.

<p>A site-specific Water Framework Directive Assessment was carried out and appended to Chapter 7. Sources of information are listed in Section 6.2.2.</p>	
<b>Chapter 7 - Hydrology</b>	
<p><b>Description of Forecasting Method Used / Evidence</b></p>	<p><b>Adequacy/Omissions/Difficulties</b></p>
<p>No specific Forecasting carried out for this Chapter A Water Framework Directive Assessment and a Site Specific Flood Risk Assessment were carried out for the development and appended to this chapter. Sources of information are listed in Section 7.2.2.</p>	<p>None reported.</p>
<b>Chapter 8 – Biodiversity</b>	
<p><b>Description of Forecasting Method Used / Evidence</b></p>	<p><b>Adequacy/Omissions/Difficulties</b></p>
<p>No specific forecasting was carried out for this chapter. Sources of information are listed in Section 8.2.3.</p>	<p>None reported.</p>
<b>Chapter 9 - Air Quality &amp; Climate</b>	
<p><b>Description of Forecasting Method Used / Evidence</b></p>	<p><b>Adequacy/Omissions/Difficulties</b></p>
<p><b>Air Quality</b> – Baseline conditions were established from EPA data including the annual report ‘<i>Air Quality in Ireland 2021</i>’, (EPA 2022) and ‘<i>Air Quality Monitoring in Ireland 2021</i>’ Air dispersion modelling was carried out using the United States Environmental Protection Agency’s regulated model – AERMOD (Version 21112). This model is recommended in the EPA Guidance document ‘<i>Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)</i>’ (EPA, 2022). AERMOD was used to predict NO<sub>2</sub> levels from the development. Modelling was also carried out using UK Guidance in the document entitled ‘<i>Diesel Generator Short-Term NO<sub>2</sub> Impact Assessment</i>’ (UK EA, 2016 &amp; 2019). Construction phase impacts were assessed using guidance from the UK Institute of Air Quality Management (IAQM), (<i>Guidance on the Assessment of Dust from Demolition and Construction, (IAQM, 2014)</i>).  Sources of information are listed throughout Chapter 9.</p>	<p><b>Omissions / Difficulties</b> The PA queried the assumptions used in the USEPA methodology (Table 9.9) for NO<sub>2</sub> dispersion. This was clarified under FI and no other queries were raised. I comment on the responses and additional information submitted in the assessment of Chapter 9 below.  No omissions or difficulties are noted.  <b>Adequacy</b> Air quality modelling was carried out to forecast levels of NO<sub>x</sub>, and PM. The forecasting model assumed testing of generators once a week when it will most likely be once every two weeks. It was also based on back-up generators running on fossil fuel / diesel although a HVO diesel supplier has been engaged / sourced. The cumulative impact scenario modelled the existing and proposed development as well as licenced facilities on the Alexion and BMS sites. I am satisfied that the forecasting methods used are adequate in respect of likely significant effects in relation to air quality.  I note that the grounds of appeal raised a concern/disagreed with the assumptions used / forecasting methods used for projecting the scenarios for indirect effects of the development caused by the generation of GHG from the additional energy required to power the development. This issue is dealt with in full in the assessment of Chapter 9 below.</p>
<p><b>Climate</b> – Baseline conditions were established using EPA data on annual GHG emissions including the EPA 2021 GHG Emissions Projections Report for 2021-2040 (EPA -2021b).</p>	<p><b>Omissions/Difficulties</b> The applicant did not list any difficulties or omissions. However, I consider the issue of uncertainty in projecting future impacts</p>

<p>Forecasting was carried out for the construction phase by carrying out a qualitative assessment of the nature and scale of GHG generating construction activities for the development. A carbon assessment was also carried out to estimate the level of embedded carbon in the materials and for emissions during transportation and construction. The carbon assessment was updated in response to the grounds of appeal.</p> <p>A SSFRA was carried out to forecast the flood risk to the site.</p> <p>The operational impacts on climate were determined by an assessment of the indirect CO<sub>2</sub> emissions associated with the electricity generation to power the development. An addendum to the Climate Section of Chapter 9 was submitted under FI. This assessed the direct (CO<sub>2</sub> including embodied carbon) and indirect (GHG from electricity) impacts during the operational phase. – The revised assessment predicted the level of electricity required from the national grid and translated this into CO<sub>2</sub>eq using the predicted electricity mix. As the development operates under the EU ETS the level of GHG emissions from the development is expressed as a % of the EU-wide ETS target (0.009%). Predictions are also made for the % of the average annual total of the carbon budget and the electricity ceiling. (7.2.2 of FI). The direct and indirect CO<sub>2</sub> emissions to operate the development were assessed in the context of national annual CO<sub>2</sub> emissions. (7.2.3 of FI).</p> <p>Sources of information are listed throughout Chapter 9.</p>	<p>could be presented as a difficulty. The issue of uncertainty is addressed in the assessment, and I am satisfied that the applicant has dealt with it based on sound assumptions which were derived at a fixed period of time, as advised in the IEMA Guidelines.</p> <p>The applicant's response to the carbon assessment included additional life cycle stages which were not included in the EIAR assessment. This issue is dealt with in Section 11.9 below and I consider this omission not to be significant within the wider context of the overall development.</p> <p><b>Adequacy of Forecasting</b></p> <p>The assessment methodology was carried out in accordance with the IEMA guidance on 'Assessing Greenhouse Gas Emissions and Evaluating their significance', (2022). I have assessed the methodology and the I consider that the 'Do-nothing' and the 'Proposed Development' scenarios are reasonable and have been appropriately assessed. The IEMA guidelines do not promote cumulative assessment of specific projects and therefore the assessment focused on permitted, proposed and future development within the masterplan site.</p> <p>I note that the assumptions and methodology applied to the climate assessment in the EIAR were disputed by the appellants on a number of grounds. This is assessed in detail in Section 11.9 below.</p>
<b>Chapter 10 – Noise &amp; Vibration</b>	
<p><b>Description of Forecasting Method Used / Evidence</b></p> <p><b>Noise –</b></p> <p>The significance of impacts for noise and vibration was assessed against the <i>EPA Guidelines EIA Reports (2022)</i> and the <i>IEMA Guidelines for Environmental Noise Impact Assessment (2014)</i>. <i>Advice on permissible construction noise levels</i> were taken from the <i>British Standard BS 5288 – 1: 200-+A1:2014: Code of Practice for noise and vibration control on construction and open sites – Noise Annex E Section E3.2</i>. The TII publication, <i>Guidelines for the Treatment of Noise and Vibration in National Road Schemes</i> was referred to for overall acceptable levels of construction noise. TII guidance set the acceptable levels for noise at the sensitive locations.</p> <p>Construction phase traffic was modelled using the <i>Design Manual for Roads and Bridges (Highways England 2020)</i> and the <i>EPA Guidelines (2022)</i>.</p> <p>A noise survey in accordance with the <i>EPA Guidance Note for Noise (NG4) (2016)</i> was carried out to determine the baseline levels at the closest noise sensitive locations. <i>British Standard BS 4142 (2014)</i> was used to rate and assess noise from industrial and commercial developments. This document also sets out</p>	<p><b>Adequacy/Omissions/Difficulties</b></p> <p><b>Omissions / Difficulties</b></p> <p>No difficulties were noted.</p> <p><b>Adequacy of Forecasting</b></p> <p>The methodology for the assessment is set out in Section 10.2 of Chapter 10. This Section also contains a full list of guidance and reference documents which were used to determine existing conditions and to forecast the significance of predicted impacts. Forecasting Methods are set out in Section 10.2.7.</p> <p>Baseline conditions and assumptions were made using industry standards and guidance which are referenced throughout the chapter. The inward noise levels for Dublin Airport (Zone C and D) were obtained from maps containing predicted noise levels in Variation 1 of the Fingal Development Plan 2017-2023 and carried forward to the current plan.</p> <p>I am satisfied that the forecasting methodology used are adequate in respect</p>

<p>the methodology for establishing an initial estimate of impact.</p> <p>IEMA Guidelines were referenced to categorise the potential effect of changes in ambient noise levels during the operational phase.</p> <p>Noise Surveys from 2016 and 2022 are appended to the Chapter in Appendix 10.2 and 10.3 respectively.</p> <p><b>Forecasting</b> – The PA requested confirmation regarding Scenario C in the noise assessment and requested that the predicted noise environment consider future airport growth. In response, Chapter 10 was updated, and a new Scenario was modelled, (Scenario F), which reflected a more realistic model of the operation of the generators. The impact of the airport noise on the development was also assessed.</p> <p>For the construction phase – noise calculations were conducted in accordance with BS 6472 (1992). Calculations for predicting building service/car park and vehicle movement noise were in accordance with ISO 9613 (1996). Changes in road traffic noise were considered against the <i>Calculation of Road Traffic Noise (CRTN)</i>, Department of Transport (1998).</p> <p>The results of the forecasting are presented in computer generated graphics which show noise levels in contours generating from the noise source to the sensitive receptors during the construction and operational phases. (5 Scenarios were considered during the operational phase – i.e. day to day / emergency operations / generator testing plus additional building).</p> <p><b>Vibration -</b></p> <p>In the absence of Irish guidance on maximum permissible vibration levels, British Standards BS 5228-2 and BS 7385-2 were referenced.</p> <p>Guidance on acceptable levels of vibration during the operational phase of the development was taken from BS 6472 (1992).</p> <p>Section 10.2.6 notes that the development will not give rise to any significant levels of vibration off site. No description of the projected vibration levels as none predicted.</p> <p>An Indicative Construction Noise &amp; Vibration Management Plan is contained in Appendix 10.6 of the Chapter.</p> <p>Sources of information are listed in Section 10.2.1.</p>	<p>of the likely significant effects in relation to Construction Phase Noise and Operational Phase Noise.</p> <p><b>Omissions / Difficulties</b></p> <p>No omissions or difficulties were noted. In the absence of Irish guidance on maximum permissible vibration levels, British Standards BS 5228-2 and BS 7385-2 were referenced.</p> <p><b>Adequacy of Forecasting</b></p> <p>The methodology for the assessment is set out in Section 10.2 of Chapter 10. This Section also contains a full list of guidance and reference documents which were used to determine existing conditions and to forecast the significance of predicted impacts. Section 10.2.6 notes that the development will not give rise to any significant levels of vibration off site.</p> <p>I am satisfied that the forecasting methodology used are adequate in respect of the likely significant effects in relation to Operational Phase Noise.</p>
<b>Chapter 11 - Landscape &amp; Visual</b>	
<p><b>Description of Forecasting Method Used / Evidence</b></p> <p>No Forecasting carried out for this Chapter</p> <p>A series of photomontages illustrating the proposed development were prepared and are contained in Appendix 11.1 of Chapter 11.</p>	<p><b>Adequacy/Omissions/Difficulties</b></p> <p>None recorded.</p>
<b>Chapter 12 - Archaeological, Architectural &amp; Cultural</b>	
<p><b>Description of Forecasting Method Used Evidence</b></p>	<p><b>Adequacy/Omissions/Difficulties</b></p>

No Forecasting carried out for this Chapter. Sources of information are listed throughout the chapter and relate to historical texts and field investigations.	None recorded.
<b>Chapter 13 – Traffic &amp; Transport</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
Baseline conditions were established in the receiving area. Computer modelling was then carried out for a number of different scenarios.  Sources of information are listed in Section 13.2.	<b>Omissions/Difficulties</b> No omissions or difficulties have been noted.  <b>Adequacy of Forecasting</b> The methodology for the assessment is set out in Section 13.2 of Chapter 13. This section also includes a list of all guidance and reference documents used in the assessment. Trip generation and junction analysis for the construction and operational phases were established using industry standard computer software (TRICS & ARCADY). A range of future scenarios were considered as part of the traffic modelling. I am satisfied that the Forecasting carried out for Traffic is adequate
<b>Chapter 14 - Material Assets</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No additional forecasting carried out. Sources of information are listed throughout the chapter,	None recorded.
<b>Chapter 15 – Waste Management</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No forecasting carried out. Sources of information are listed throughout the chapter and reference the relevant chapters in the EIAR.	None recorded.
<b>Chapter 16 – Cumulative Effects</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No additional forecasting carried out. Sources of information are listed throughout the chapter and reference the relevant chapters in the EIAR	None recorded.
<b>Chapter 17 – Interactions – Interrelations Between the Aspects</b>	
<b>Description of Forecasting Method Used / Evidence</b>	<b>Adequacy/Omissions/Difficulties</b>
No additional forecasting carried out. Sources of information are listed throughout the chapter and reference the relevant chapters in the EIAR	None recorded.
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.	
This is addressed in Section 2.7 of Chapter 2. Specific risks considered in this section of the EIAR include Landslides, Seismic Activity and Volcanic Activity, Flooding/Sea Level Rise, Seveso/COMAH and Minor Accidents/Leaks. The potential for Minor Accidents/Leaks is also addressed in Chapters 6 & 7. The risks identified are reasonable and the assessment made is sufficient to enable decision making.	
Article 94 (c) A summary of the information in non-technical language.	

A Non-Technical Summary is provided at the front of the EIAR. I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that is accessible and easily understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report
Sources used to inform the description, and the assessments are listed under a specific section in each chapter. References used are also listed at the back of each relevant chapter. I consider the sources relied upon are generally appropriate and sufficient.
Article 94 (e) A list of the experts who contributed to the preparation of the report
A list of the various experts and contributors is contained in Section 1.3.1 of Chapter 1. This section also contains a brief bio for each consultant and lists their qualifications and specialist fields. Table 1.1 contains a list of the environmental factor and relevant chapter that each consultant contributed to. I am satisfied that that EIAR has been prepared by competent experts within the various Chapters of the EIAR.

## Consultations

11.5.9. The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices. Submissions have been received from prescribed bodies and third-party appellants and are considered in this report, in advance of decision making. I am satisfied that third parties have had the opportunity to comment on the proposed development in advance of decision making.

### **Conclusion on compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended)**

11.5.10. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the applicant is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001(as amended).

## **Assessment of Likely Significant Effects**

11.5.11. This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.

11.5.12. In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the appeal/application.
- Examination, analysis and evaluation of the EIAR.
- The Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

## **11.6. Population and Human Health**

### ***Issues Raised***

Issues were raised in the grounds of appeal that relate to human health. These issues relate to air quality, emissions and general disturbance. Issues raised under specific topics will be addressed below under the relevant chapters.

### ***Context and Baseline***

11.6.1. The baseline conditions and context are established in Chapter 5 by first defining the study area and then assessing the health sensitivity of the population by reviewing CSO data. The study area was determined by judging the accessibility of data and taking into consideration the potential impact from the proposed development. A general area of 1km from the site location was included for population statistics and a wider area of 2.5km from the site was used to inform the baseline description.

11.6.2. Key criteria for the receiving population were determined through a review of indicators which included age profile, socioeconomics, deprivation, health status etc. The general character of the area was also considered, including the physical attributes and the social infrastructure available to the population. The analysis showed that the study area has a young population (the dominant age profile in the study area was in the 25-44 age group with a slightly higher percentage than the national average), with lower than average ‘age dependency’ with ‘good’ health. The Pobal HP Deprivation Index showed the area to be Marginally Above Average. Overall, the key indicators suggest that the population in the study area is not particularly sensitive to change.

**Potential Effects**

11.6.3. Likely significant effects of the development, as identified in the EIAR are summarised in the table below.

<b>Summary of Potential Effects (Population and Human Health)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"> <li>• Not examined in this chapter.</li> </ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"> <li>• The EIAR notes that potential impacts on population and human health during the construction phase would be from general nuisance, air quality, noise, visual impact and traffic. These impacts are addressed in the relevant chapters below.</li> <li>• A slight positive impact on local businesses is predicted from the increase in daytime workers on the site.</li> </ul>
<b>Operational Impacts</b>

<ul style="list-style-type: none"> <li>• The EIAR notes that potential impacts on population and human health during the operational phase would be from general nuisance, air quality, noise, visual impact and traffic. These impacts are addressed in the relevant chapters below.</li> <li>• A slight positive impact is predicted for users of the service during the operational phase due to improved capacity in cloud computing services.</li> <li>• A slight positive impact is predicted for local businesses due to an increase in visitors and employees on the site.</li> </ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"> <li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### ***Mitigation***

11.6.4. Embedded design and mitigation measures are set out in Section 5.6 of the EIAR. Measures for the construction and operational phases of the development are addressed separately. For the construction phase mitigation measures to control impacts relate to good construction practices and to measures included in the CEMP. Mitigation measures for the operational phase include measures to deal with accidents and spills which would be listed in the Environmental Safety and Health Management System plan for the development. Mitigation measures to reduce noise, emissions and vibrations would be integrated into the design of the development.

### ***Residual Effects***

11.6.5. With the implementation of mitigation measures the residual impacts of the development on human beings would be imperceptible to slight.

### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.6.6. I have examined, analysed and evaluated Chapter 5 of the EIAR and all the associated documentation and submissions on file in respect of population and human health. I am satisfied that the information submitted in the EIAR adequately demonstrates an

understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures to reduce any potential impacts.

11.6.7. The information submitted shows that the proposed development would not have any significant impact on human beings in terms of population increase. Additional workers on site during the construction phase would have a slight, positive, short-term socioeconomic impact for local businesses. The projected increase in visitors to the site during the operational phase would have an imperceptible impact.

11.6.8. The potential for significant effects on human health from noise and vibration, air quality and climate, traffic and water quality during the construction and operational phases are addressed in the relevant chapters of the EIAR. I have assessed these relevant chapters and am satisfied that these effects can be avoided, managed and mitigated by measures that form part of the proposed scheme.

***Conclusion: Direct and Indirect Effects***

11.6.9. I am satisfied that the proposed development would not have an adverse impact on Population and Human Health, subject to compliance with relevant legislation and guidance, implementation of the EIAR and final CEMP mitigation measures and compliance with recommended conditions.

**11.7. Biodiversity**

***Issues Raised***

The grounds of appeal submits that the information contained in the EIAR is not sufficient to determine that the development will not have significant adverse impacts on biodiversity and ecology in the area from the construction and operation of the development, traffic and the use of diesel generators – i.e. emissions from the development.

***Context***

11.7.1. The subject site forms part of a wider landholding in an urban location to the north-west of Dublin City Centre. The site is currently occupied by 3 data centre buildings, (Buildings A, B and C) and a 220kV GIS Substation, (Building D). To the west and south, the site is bounded by the R121 road with the Cruiserath Drive access road to the north. There is residential development to the north, east and south and

industrial development to the east. As part of the development of Building A, infrastructure and landscaping was established across the entire site, including the main entrance and along the western site boundary. The site is drained by surface water system which is directed through an attenuation system before discharging to the IDA stormwater drain to the north of the site.

- 11.7.2. The development site is primarily on developed comprising re colonised bare ground and planted wildflower earth banks.

**Baseline**

- 11.7.3. The focus of the biodiversity chapter was mainly on the proposed development site within the red line boundary. The surrounding area within 150m of the red line area was also considered, in addition to any potential hydrological and biological connections to European sites in a Zone of Influence. (A Report for the purposes of Appropriate Assessment Screening was prepared and appended to Chapter 8 in Appendix 8.1).
- 11.7.4. The baseline study for habitats comprised a combination of desktop studies and a site visit, which was carried out in July which, is appropriate for surveying flora, birds and non-volant mammals such as badgers. Habitat types within the site included 'Recolonising Bare Ground (ED3)' which related to stockpiles of clay and earth that had been colonised during previous construction works; Flower beds and Borders (BC4) comprising landscaping and wildflowers and Buildings and Artificial Surfaces (BL3). No invasive species were found during the survey. No badger setts or signs of badgers were found, and the site is unsuitable for otters. There were no records of bats found during the desk surveys and there were no mature trees or bat roosts present on the site. No birds of conservation concern were observed on the site.

**Potential Effects**

- 11.7.5. The EIAR did not identify any likely significant effects on biodiversity during the construction or operational phases. The following table identifies the potential impacts of the development.

<b>Summary of Potential Effects (Biodiversity)</b>
<b>Do Nothing</b>

<ul style="list-style-type: none"> <li>• The Do-nothing scenario would have a neutral effect.</li> </ul>
<p><b>Construction Impacts</b></p>
<ul style="list-style-type: none"> <li>• There will be a permanent loss of recolonised bare ground which is of low ecological value. The potential effects regarding loss of habitat would be neutral and imperceptible.</li> <li>• The site is not within or adjacent to a European Site and there is no risk of habitat fragmentation or any other effects on Qualifying Interest (QI) habitats or species directly or ex-situ. (A Screening Report for Appropriate Assessment was prepared and appended to Chapter 8. The report concluded that there was no connectivity to any European Sites within or outside of the Zone of Influence and that there would be no predicted effects on any European sites).</li> <li>• No impacts on badgers or otters. There will be no loss of bat roosts, commuting routes or foraging opportunities for bats and/or birds. The potential impact on bats and birds would be neutral and imperceptible.</li> </ul>
<p><b>Operational Impacts</b></p>
<ul style="list-style-type: none"> <li>• No predicted emissions to air, water of the environment that will have a significant effect on biodiversity. (Predicted emissions to air water and land are assessed in the relevant chapters below).</li> <li>• No potential for effects on fauna including badgers, otters, bats and birds.</li> </ul>
<p><b>Decommissioning</b></p>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<p><b>Cumulative Impacts</b></p>
<ul style="list-style-type: none"> <li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### ***Mitigation***

11.7.6. Mitigation measures are listed in Section 8.6 of the EIAR. They include the implementation of a Landscaping Strategy to increase planting and biodiversity and enhancing the existing attenuation pond on the site.

### ***Residual Effects***

11.7.7. Having regard to the existing baseline for habitats and biodiversity, and with the employment of mitigation measures, the proposed development would have a *neutral, imperceptible and long-term effect* on biodiversity.

***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.7.8. I have examined, analysed and evaluated the information provided in Chapter 8 and all the associated documents and submissions on file in respect of Biodiversity. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section 8.6 to reduce any potential impacts.

11.7.9. Parties to the appeal raised a concern that the impact of the proposal on biodiversity and ecology had not adequately been considered. A specific reference was made to the potential impact of emissions from the development. This will be addressed in the relevant chapters below, (Air Quality & Climate). However, I note that the Zone of Influence (Zoi) for air quality is generally local to the proposed development and not greater than a distance of 50m from the site boundary and 500m from the construction compound during the construction phase and up to 200m from the site boundary during the operational phase. No habitats or species of conservation interest were identified within the range of the Zoi for impacts on air quality from the development.

11.7.10. Surveys carried out for the EIAR did not identify any flora or fauna within the site that are listed as protected species. There are few habitats of natural or semi-natural value remaining on the site and no ecological corridors were identified. There are no designated sites of conservation value in proximity to the site and connections to any such sites would be limited to overland pathways. Direct impacts on ecology and biodiversity within the site would be limited to habitat removal, disturbance or displacement of species. Given the location of the site in an urban area, on the outskirts of a commercial/industrial area, and the nature of the development site, I am satisfied that the proposed development would not have a significant impact on the ecology and biodiversity of the receiving environment resulting from the physical development of the site. Potential impacts arising from direct and indirect emissions will be reviewed and assessed in the Air Quality & Climate chapter below.

### ***Conclusion: Direct and Indirect Effects***

11.7.11. Having regard to examination of environmental information contained in the EIAR and as reviewed above, it is considered that by virtue of,

- the character of the brownfield site within a wider development site in an urban area and adjoining an industrial estate,
- the baseline conditions of the site which does not contain any habitats, flora or fauna of conservation interest and
- the lack of connections / pathways to any European Sites, or sites of conservation interest such as Natural Heritage Areas (NHA) or proposed Natural Heritage Areas (pNHA),

there is no potential for significant environmental effects on biodiversity.

### **11.8. Land, Soils, Geology and Hydrogeology**

#### ***Issues Raised***

11.8.1. No issues were raised by any party to the appeal in respect of land, soils, geology or hydrogeology. Third parties were concerned that the requirements of the Water Framework Directive had not been considered.

11.8.2. This chapter of the EIAR was updated through Further Information which was requested by the PA. A revised Soil Investigation Report was submitted as an addendum to the initial EIAR and has been considered in my assessment of the Chapter.

#### ***Context***

11.8.3. The site has a relatively flat topography with a gentle slope from south to north. The level of the site is approximately +85m above ordinance datum and the land had previously been used for arable farming. In the last 10 to 15 years much of the land to the east and south has been developed for industrial and commercial use with residential use to the west. A full review of the history of the site is carried out in Chapter 12 – Archaeology, Architectural and Cultural Heritage.

11.8.4. There are five EPA licenced facilities in surrounding area. There are no licenced waste facilities in the area and no known Section 22 illegal landfills or other historic landfills within a 1km radius of the site.

### ***Baseline***

11.8.5. The baseline conditions were established thorough the use of desktop studies and site investigations which were carried out in 2016 and 2023.

### Soils –

11.8.6. The site does not contain or form part of an area of geological interest and there are no such areas in the vicinity of the site. The soil type predominantly covering the site area is classified as BminDW – Basic Deep Well Drained Mineral (grey, brown podzolics, brown earths). Further to the north and east of the site the soils are composed of BminPD – surface water gleys/groundwater gleys basic. The subsoil type at the site is predominantly classified as TLs – Till type subsoil comprising Limestone till (Carboniferous) of variable texture, which generally exhibit low permeability.

11.8.7. Investigations carried out for the Soil Quality Assessment found no evidence of any contamination in any of the boreholes or trial pits excavated across the site in 2016 or in 2023. As there was no evidence of contamination on the site, there is no pathway linkage to the underlying aquifer. (A full list of contaminants that the soil was tested for is contained in Section 3 of the Soil Quality Assessment 2023).

### Bedrock –

11.8.8. Bedrock geology underlying the site belongs to three formations, TC – Tober Colleen Formation, consisting of calcereous shale and limestone conglomerate, RU – Rush Conglomerate Formation, comprising conglomerate, shale and limestone and, LU – Lucan Formation, consisting of ‘Calp’ limestone. No bedrock outcrop was identified on the site. Bedrock depth on the site varies from at surface to 3.5m below ground level.

### Hydrogeology –

11.8.9. There are two aquifers underlying the subject site. On the eastern portion of the site the bedrock aquifer is classified as a *(PI) Poor Aquifer – Generally Unproductive except for Local Zones*. The western portion of the of the site is underlain by a *(LI) –*

*Locally Important Aquifer*, i.e. a bedrock aquifer which is moderately productive only in local zones. Groundwater vulnerability in the region of the site is classified as 'High'. Previous site investigations at the location of the development confirmed an overburden thickness of up to c. 2m. This indicates that the vulnerability at the site would be *High to Extreme*. A number of groundwater monitoring and abstraction wells were identified within a 3km radius and are mapped in Figure 6.6 of the EIAR. This information was taken from the Geological Survey Ireland (GSI) Well Card Index, which is not comprehensive.

11.8.10. The Groundwater Body (GWB) underlying the site is the Dublin GWB (EU GWB Code: IE\_EA\_G\_008). Under the Water Framework Directive (WFD), this water body is classified as having '*Good Status*' with a GWB Risk score of '*under review*', (EPA 2022). Shallow groundwater seepage (perched groundwater within the overburden) was found at two locations during site investigations carried out in 2016. No significant water inflows were noted at other excavations. Site investigations also involved testing of groundwater for Volatile Organic Compounds (VOC's), metals, anions and cations and hydrocarbons. Only one exceedance of the threshold values set out in the relevant regulations, (listed in Section 6.3.5.3 of the EIAR) was recorded. The exceedance was for nitrogen and was found at two boreholes. A full set of test results are contained in Appendix 6.3. The importance of the geological and hydrogeological features on the site are rated as '*Low Importance*', (NRA 2009).

### **Potential Effects**

11.8.11. No significant impacts on land, soil or groundwater are predicted in the EIAR for the construction phase or the operational phase. The magnitude of the potential impacts during the construction phase without mitigation and design measures is *short-term* in duration and *non-significant*. The magnitude of the potential impacts during the operations phase is considered to be *long term* in duration with an *imperceptible effect*. I agree with the conclusion of the EIAR that significant effects are not predicted. For the Board's information the likely effects of the development, as identified in the EIAR are summarised in the table below;

<b>Summary of Potential Effects (Land, Soils, Geology &amp; Hydrogeology)</b>
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<b>Do Nothing</b>
<ul style="list-style-type: none"> <li>The extant planning permissions on the site would be completed and the land, soil, geological and hydrogeological environment would be unchanged.</li> </ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"> <li>Soil or groundwater contamination from run-off percolating to ground and/or from spills or leaks from hazardous materials.</li> <li>Release of uncontrolled surface water or sediment from the storage of spoil or aggregates and/or soil stripping.</li> </ul>
<b>Operational Impacts</b>
<ul style="list-style-type: none"> <li>Potential for soil and groundwater contamination from leaks and spillages from fuel stored on the site.</li> </ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"> <li>Not examined.</li> </ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"> <li>Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### ***Mitigation***

11.8.12. Embedded design mitigation and on-going mitigation measures are set out in Section 6.6 of the EIAR. This section notes that measures have been incorporated into the design to mitigate the potential effects on the surrounding land, soils, geology and hydrogeology.

11.8.13. During the construction phase, mitigation measures will be implemented through the application of good site practices and through the implementation of the CEMP, which will be prepared by the contractor, and which will include measures to control all excavations, management of materials including storage and importation, and the control of water.

11.8.14. During the operational phase there would be no emissions to ground or to the underlying aquifer from the activities to be carried out. Design measures will be implemented to direct drainage to the stormwater sewers via the existing and proposed SUDS measures on the site. Fuel storage, pumps, pipework and delivery

mechanisms will be designed to prevent and contain spills or leaks and will include safety measures such as alarms and shut-off valves. There will be an increase in hard surfaces from the development which will protect the underlying aquifer. SUDS measures will be implemented to mitigate against the loss of permeable surface area. Implementation of the mitigation measures would result in no impact or deterioration on the WFD status on the underlying bedrock aquifer.

### ***Residual Effects***

11.8.15. No significant residual effects are predicted during the construction or operational phases of the development following the implementation of the mitigation measures.

### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.8.16. I have examined, analysed and evaluated the information provided in Chapter 6 and all the associated documents and submissions on file in respect of Land, Soils, Geology and Hydrogeology. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation measures in Section 6.6 to reduce any potential impacts.

11.8.17. The baseline conditions of the site as they relate to land, soils, geology and hydrogeology showed no signs of contamination in the soils. Some exceedances of nitrogen levels were found at two locations on the site but are most likely linked to the agricultural history of the site. The underlying aquifer has a 'Good' status in the WFD and the soil investigation report showed no contamination for the potential contaminants tested. The groundwater table has no karstification and pockets of perched water was found in two locations on the site with water ingress observed in some boreholes, which indicated no continuous and connected perched water table. The aquifer on the site is categorised by the GSI with 'High to Extreme Vulnerability'. Therefore, any increase in sediments or chemicals in surface water runoff would need to be carefully managed. The main feature in the protection of groundwater from contaminants is subsoil.

11.8.18. In addition, due to the increase in construction activity, potential impacts to soil contamination could occur from accidental spillages and leakages. The final CEMP will include mitigation measures, which will protect soils and groundwater

from contamination. With the implementation of Mitigation Measures outlined in the EIAR, I consider that the proposed development is not predicted to give rise to significant adverse impacts to Land and Soils at any phase of the development. The impact of the proposal in terms of the WFD was also considered in the Water Framework Directive Assessment contained in Appendix 7.3 of the EIAR. The WFD assessment considered the potential for pollutants entering the groundwater body as a result of the development. Following an examination of the mitigation measures proposed to prevent accidental spillages that would contribute to contamination, the report concluded that there is no potential for adverse or minor temporary or localised effects on the Dublin groundwater body. Therefore, the proposed development is unlikely to cause any significant deterioration or change in water body status or prevent attainment, or potential to achieve the WFD objectives to meet the requirements and or objectives in the third River Basin Management Plan to 2027.

***Conclusion: Direct and Indirect Effects***

11.8.19. I consider the applicants assessment has identified the relevant issues in relation to Land, Soils, Geology & Hydrogeology and that no significant adverse effects are likely to arise.

**11.9. Hydrology**

***Issues Raised***

11.9.1. In the grounds of appeal, concerns were raised regarding the volume of water to be used by the development for cooling purposes and the potential impact of the discharge of water from the site. The impact of the proposal on the requirements/obligations of the WFD was also raised.

***Context and Baseline***

11.9.2. There are no streams or watercourses on the development site or along its boundaries. The most significant drainage system in the vicinity of the site is the River Tolka and its tributaries which are located to the south of the site. The Mooretown Stream lies approximately 330m to the north of the site.

- 11.9.3. For the purposes of the Water Framework Directive (WFD) the site is in Hydrometric Area No. 09 of the Irish River Network and within the Tolka Sub-Catchment (Tolka\_SC\_010, 09\_10). There are two EPA water quality monitoring stations on the River Tolka downstream of the site, one at Mulhuddart Bridge and the second at Abbottstown Bridge. Both stations recorded a 'Poor Status' in 2019 and the Tolka waterbody is classified as 'At risk of not achieving good status' in the WFD. The Mooretown Stream to the north of the site is part of the Powerstown (Dublin)\_010 waterbody. This waterbody and its tributaries are classed as having 'Poor Status'.
- 11.9.4. The site is located in Flood Zone C and is not at risk of flooding from a 1% or 0.1% Annual Exceedance Probability (AEP) event. A Site-Specific Flood Risk Assessment (SSFRA) was carried out for the development and is contained in Appendix 7.2 of the EIAR. It identified no flood hazards for or from the proposed development.
- 11.9.5. There is an existing surface water outfall pipe along the eastern boundary of the development site. There is an existing 375mm connection to the foul water system along the R121.

**Potential Effects**

- 11.9.6. No significant effects were identified in the EIAR. The likely effects of the development as identified in the EIAR are summarised in the table below.

<b>Summary of Potential Effects (Land, Soils, Geology &amp; Hydrogeology)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"> <li>The water quality and hydrology would remain unchanged.</li> </ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"> <li>Construction activities from site preparation, levelling and excavations could result in an increase of sediment or other pollutants in surface water run-off.</li> <li>There is a potential for an increase in surface run-off and sediment loading from the compaction of soils and the increase in hard standing areas during construction.</li> <li>The removal of perched rainwater in excavations through pumping may be required.</li> </ul>

<ul style="list-style-type: none"> <li>• There is a risk of accidental pollution of surface water and ground water from spills or leaks of chemicals and fuels stored on site.</li> </ul>
<p><b>Operational Impacts</b></p>
<ul style="list-style-type: none"> <li>• The loss of permeable surfaces from construction of the buildings could result in additional surface water run-off from the site.</li> <li>• There would be an increase in foul wastewater from the development. This will be discharged to the existing foul water drainage on the site and to the public wastewater treatment system.</li> <li>• The development would require an increase in demand for water from the public services.</li> <li>• There is a potential for leaks and spillages from vehicles, parking and loading areas.</li> </ul>
<p><b>Decommissioning</b></p>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<p><b>Cumulative Impacts</b></p>
<ul style="list-style-type: none"> <li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### **Mitigation**

11.9.7. Embedded design and ongoing mitigation measures are contained in Section 7.6 of the EIAR and in the Outline CEMP (OCEMP) contained submitted with the application. They include design measures which have considered the risks to the water environment during the construction and operational phases. During the construction phase, measures contained in the OCEMP will be employed to manage surface water run-off and to prevent contaminated surface water from entering the nearby watercourses. Run-off water containing silt will be contained in settlement tanks and silt reduction measures will be employed throughout the site. Good construction site practices and safety measures will be employed for the storage of fuel and chemicals and for the importation and loading of materials. Emergency measures for dealing with accidental spills and leaks are set out in the OCEMP. A CEMP will be prepared by the contractor prior to the commencement of

development. The preparation of a CEMP is generally required by planning condition.

- 11.9.8. During the operational phase, containment measures for fuel and chemicals will minimise the risk of spillages or leaks. Fuel will be stored in bunded containers, the design of which will conform to the required industry standards. Surface and storm water will be managed on the site through the existing and proposed drainage system. In accordance with the Greater Dublin Strategic Drainage Study, post-development runoff volumes will match pre-development volumes. SUDS measures will be implemented throughout the site and surface water will be directed to an existing retention pond prior to being discharged at a controlled rate via hydrobrake and through a petrol interceptor. Rainwater will be harvested and used to cool the data centre buildings. Additional water will be required to cool the buildings during periods of high temperatures. This would be obtained from the mains water system, and an agreement is in place that the applicant will abstract water during times of low demand for storage on the site when needed. The projected level of additional water demand for cooling is stated as c. 1110m<sup>3</sup> annually. The buildings have been designed to harvest up to 95% of cooling water needs which will be stored on site. Should the water storage need to be topped up from mains water it would be during times of low demand to mitigate impacts of the proposed demand on the Dublin Water Supply Area as per the requirements of the Confirmation of Feasibility from Irish Water

### ***Residual Effects***

- 11.9.9. The EIAR considered the impact of the proposal on the water status of all relevant water bodies as required by the WFD. With the mitigation measures contained in Section 7.6 in place, there will be no degradation of the current water body status, (chemically, ecologically or quantitatively) or its potential for meet the requirements of the relevant River Basin Management Plan. A detailed WFD assessment was carried out and is contained in Appendix 7.3 of the EIAR.
- 11.9.10. No significant residual effects are anticipated following the implementation of the mitigation measures. The predicted residual impact during construction is categorised as 'short-term, imperceptible-neutral'. The residual impact during the

operation phase is predicted to be 'long-term, imperceptible-neutral' with a 'Negligible' magnitude.

***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

- 11.9.11. I am satisfied that the mitigation measures proposed for the construction phase would be sufficient to prevent any significant impacts on the hydrology of the area arising from the proposed development. There are no watercourses on the site and there is no direct pathway to surface water from the site to nearby watercourses. Some removal of perched rainwater may be necessary but anticipated volumes are low, and all pumped water will be subject to onsite settlement before release. Measures relating to good construction site practices as set out in the CEMP would be sufficient to prevent significant impacts from contaminated surface water runoff.
- 11.9.12. Concerns were raised in the grounds of appeal regarding the extent of water required to cool the data centre. The EIAR acknowledges that the proposed development will result in an increased demand for water from the public water supply. The data centre buildings have been designed to use rainwater harvesting for cooling with additional water required from the public supply to cool the buildings during periods of high temperatures. A total rainwater storage volume of 2170m<sup>3</sup> will be provided on site for the buildings. The projected level of additional water demand for cooling is stated as c. 1110m<sup>3</sup> annually. I note that the applicant has engaged with Uisce Éireann and has been advised that sufficient supply will be available with a Confirmation of Feasibility appended to the Engineering Report submitted with the application. Based on the details provided in the EIAR and the supporting application documents, I am satisfied that the proposal seeks to reduce the level of water required through on-site storage and rainwater harvesting. The development would also draw water from the public system during times of low demand should the on-site storage need to be topped up. This would mitigate impacts of the development on the Dublin Water Supply Area as per the requirements of the Confirmation of Feasibility from Irish Water.
- 11.9.13. Water from the site would be discharged through an existing connection to the public stormwater network. SuDS measures proposed for the development would ensure that post development runoff levels from the site match pre-development levels. This would be attained using an existing detention pond on the site and a

wetland area. The detention pond has been sized to accommodate existing and proposed buildings. Both attenuation measures have a built-in allowance for climate change and a 1 in 100-year storm. The outfall from this pond would be controlled by a hydrobrake and would be to the existing manhole to the south-east of the development site. The wetland area would outfall to an existing on-site storm drain with a limited discharge rate of 1.0l/sec.

11.9.14. Having reviewed the information submitted with the application and in the EIAR, I am satisfied that the water to be discharged from the site will be attenuated and would be limited to a rate of 126.3 l/s, (which was permitted under Reg. Ref. FW17A/0025). Attenuation on site and restricted discharge flow rate would control the level of water from the site and prevent any inundation of existing systems. The water systems designed for the development engage measures to harvest water within the site and to reuse it for operational purposes. All water released from the site, during the construction or operational phases would be attenuated and passed through an oil/water interceptor prior to discharge with additional monitoring during the construction phase.

11.9.15. The grounds of appeal raised a concern that the impact of the development on the Water Framework Directive was not considered. However, a Water Framework Directive Assessment (WFDA) was carried out for the development and included in Appendix 7.3 of the EIAR. The Assessment found that the surface water bodies relevant to the development site, (the Mooretown Stream, Powerstown Stream and the Tolka River) were all categorised as having 'Poor' status. The groundwater body underlying the site, (the Dublin Groundwater Body), had a 'Good' Status. (I note to the Board that the status of the waterbodies remained unchanged in the River Basin Management Plan 2022-2027). I have reviewed the information contained in the WFDA and the application. I am satisfied that the following the implementation of the design and mitigation measures set out in the EIAR to protect the hydrological environment during the construction and operational phases, that the development is unlikely to give rise to a threat of pollution or cause any significant deterioration or change in water body status or prevent attainment, or potential to achieve the WFD objectives or to meet the objectives of the third River Basin Management Plan 2022-2027.

***Conclusion: Direct and Indirect Effects***

11.9.16. I consider the applicants assessment has identified the relevant issues in relation to Hydrology and that no significant adverse effects are likely to arise.

#### **11.10. Air Quality and Climate**

11.10.1. The information on climate has been updated by the applicant throughout the planning process. An addendum to Chapter 9 – Air Quality and Climate, was submitted to the PA on foot of a request for FI. The impact of the proposal on climate was further addressed in a Technical Note submitted by the applicant in their response to the grounds of appeal. I have reviewed all the information submitted, including the detailed submissions from third parties and the grounds of appeal. My assessment of the Air Quality and Climate chapter of the EIAR contains the most recent information submitted by the applicant. The Analysis, Evaluation and Assessment part of this section reviews the information submitted and assesses the arguments put forward and the points raised in the grounds of appeal. Whilst there are interactions between Air Quality and Climate, I will address each topic separately.

#### **Air Quality**

##### ***Issues Raised***

11.10.2. The grounds of appeal raised concerns regarding the impact of the diesel generators on air quality in the community and how this will be properly mitigated. Appellants also submit that the neighbouring community may be sensitive to reductions in air quality or to increased atmospheric emissions due to their socio-economic circumstances. The use of HVO is queried as a mitigation measure as it is not carbon neutral and there are concerns regarding the sustainability of its source and how it is harvested.

##### ***Context and Baseline***

11.10.3. Ambient air quality standards are set out in the Air Quality Standards Regulations 2011, which give effect to the European Commission Directive 2008/50/EC. These regulations have been replaced by the Ambient Air Quality Standards Regulations 2022. The EIAR states that the limit values in relation to NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> are relevant to the assessment as these will be emitted because of the construction and operational phases of the development. Table 9.1 of the EIAR

sets out the relevant limit values. Sensitive receptors are identified as the nearby residential development to the west of the site and the two schools along Powerstown Road.

- 11.10.4. Baseline levels of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> were established by reviewing air quality monitoring data compiled by the EPA and local authorities. The subject site is within Zone A for the purposes of air quality management and monitoring, as defined in the EPA document '*Air Quality in Ireland 2021*'.
- 11.10.5. The monitoring station at Swords is the closest to the site. Based on annual average results from the Swords station, it is estimated that the background NO<sub>2</sub> concentration in the region of the proposed development is 15 micrograms per cubic metre, (µg/m<sup>3</sup>). The EU limit value for the protection of human health is annual limit of 40 µg/m<sup>3</sup> NO<sub>2</sub>.
- 11.10.6. Baseline levels of PM<sub>10</sub> were determined by reviewing results of monitoring from Ballyfermot, Dun Laoghaire, Tallaght and the Phoenix Park. An appropriate estimate of the background PM<sub>10</sub> concentration in the region of the development was determined to be an annual mean concentration of 14 µg/m<sup>3</sup>. Continuous PM 2.5 monitoring carried out at the Zone A location of Rathmines showed an average concentration ranging from 9-10 µg/m<sup>3</sup> over the period 2017 to 2021. Based on this information the ratio of PM<sub>2.5</sub> to PM<sub>10</sub> is estimated to be in the region of 0.60 with a representative background concentration of 10 µg/m<sup>3</sup> estimated for the region of the development. The estimated background levels of PM<sub>10</sub> and PM<sub>2.5</sub> were found to be low and are within the EU annual limit values for the protection of human health which are 40 µg/m<sup>3</sup> PM<sub>10</sub> and 25 µg/m<sup>3</sup> PM<sub>2.5</sub>. All estimated background levels of NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> were found to be within the relevant limit levels.
- 11.10.7. It is noted that current operations on the site (back-up generators) are subject to an EPA Industrial Emissions (IE) licence, P1182-01. As part of the licence, an ambient air monitoring programme is to be submitted to the EPA for approval. The monitoring programme will include NO<sub>2</sub> levels which are to be monitored and assessed against the relevant EU standards.

## Potential Effects (EIAR and addendum information)

<b>Summary of Potential Effects (Air Quality)</b>
<b>Do Nothing</b>
Air Quality - <ul style="list-style-type: none"><li>No additional emissions will occur. The existing data centre buildings on the site will continue to operate with emissions occurring from their generator testing. The 'Do-nothing' operational scenario is set out in Section 9.7.2.1.</li></ul>
<b>Construction Impacts</b>
Air Quality - <ul style="list-style-type: none"><li>Additional dust emissions because of excavation works, infilling, landscaping and storage of soil in stockpiles.</li><li>Emissions from the commissioning of the generators prior to the operational phase.</li></ul>
<b>Operational Impacts</b>
Air Quality - <ul style="list-style-type: none"><li>Potential impact on air quality from NO<sub>2</sub> emissions from the back-up diesel generators.</li></ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"><li>Not examined.</li></ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"><li></li><li>Construction phase – Cumulative impacts from the subject site and any large scale construction projects in the vicinity were considered and assessed.</li><li>Operational phase – Cumulative impacts to air quality from NO<sub>2</sub> emissions from the proposed development, permitted development on the site, and developments within 1km of the subject site, (i.e. BMS and Alexion, both of which are licenced by the EPA) were considered. The results of the cumulative model were set out in Table 9.11 of the EIAR.</li></ul>

## ***Mitigation***

11.10.8. During the construction phase, dust minimisation measures will be implemented on site in accordance with the CEMP. Fuels will be stored in sealed containers. The siting of storage stockpiles will take note of the location of sensitive receptors and prevailing wind directions to minimise dust. Good site management will respond to changes in weather such as high winds or rainfall. Procedures on site to reduce and prevent nuisance from dust will be monitored and reviewed on an ongoing basis. A full list of dust control mitigation measures for the construction phase are set out in Sections 9.6.1.2 to 9.6.1.6.

11.10.9. During the operational phase mitigation is provided through measures integrated into the project at design phase. The stack heights of the back-up generators were designed to ensure that an adequate height was provided to aid dispersion of the NO<sub>2</sub> emissions, and to achieve compliance with the EU ambient air quality standards at all off site locations (including background concentrations). No additional air quality measures are proposed for the operational phase.

## ***Residual Effects***

11.10.10. When the dust mitigation measures are put in place for the construction phase, they will ensure that the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Residual fugitive emissions of dust and particulate matter will not cause any nuisance to nearby receptors.

11.10.11. During the operational phase the operational phase, modelling carried out in accordance with US EPA methodology, indicate that the ambient ground level concentrations are within the relevant air quality standards for NO<sub>2</sub>. Using the UK Environmental Agency methodology, the results showed that, in the maximum year, the emergency generators for the permitted buildings, A, B and C and the proposed buildings E, F and G, can operate for up to 68 hours per year before there is a likelihood of an exceedance of the ambient air quality standards. However, it is noted that UK guidance recommends that there should be no running time restrictions placed on back-up generators which provide power on site only during emergency power outages.

### ***Analysis, Evaluation and Assessment Direct and Indirect Impacts***

- 11.10.12. The PA requested clarity on the methodology assumptions used in the air dispersion model and for the results shown in Table 9.9 of the EIAR. The FI response detailed the methodology used for to carry out the modelling for the EIA. The 'Do-nothing' scenario comprised the existing and permitted development on the site, (Buildings A, B and C), plus the existing eight emissions points at the neighbouring BMS and Alexion facilities. This scenario also involved the emergency operation of 60 of the 66 diesel generators, (the remaining 6 being 'catcher' generators, which are additional units to support the system should some generators be out of service for maintenance etc.), and included a regime of weekly testing and maintenance testing four times a year for all generators associated with Buildings A, B and C.
- 11.10.13. The 'Proposed Development Scenario' comprises the emission points in the 'Do-nothing Scenario', as well as the emission points associated with the Proposed Development, (i.e. buildings E, F and G). This scenario involved the emergency operation of 97 of the 107 diesel generators, (10 generators operate as 'catcher' generators) plus weekly testing and maintenance testing four times a year for all 107 generators. The emission rates for each testing scenario are set out in Table 9.2 of the EIAR.
- 11.10.14. Table 9.9 of the EIAR sets out the NO<sub>2</sub> Dispersion Model Results – Proposed Development Scenario. The applicant clarified that the scenario set out in Table 9.9 is based on the 'Proposed Development' Scenario, for the operation of 97 of the 107 generators for 72 hours per year, as well as scheduled weekly testing and quarterly maintenance testing of all back-up generators (for permitted and proposed buildings). Modelling was undertaken to cumulatively assess both the emergency operation of the facility and the two types of testing – batch testing once a week of all 107 generators at a 25% load for a maximum of 30minutes one at a time, and maintenance testing four times per year of all 107 back-up generators at 90% load for one full hour one at a time every three months.
- 11.10.15. Air modelling results in Table 9.9 are based on the testing scenario both weekly and quarterly in addition to the emergency operation of the generators 72 hours per year, (72 hours per year is based on an internal operating standard). I note

that the EPA licence regulating existing operations on the site, (Ref. P1182-01), limits the use of generators for Buildings A, B and C on the site to 72 hours per year. An IE licence is already in place for the existing development on the site, for an activity under Class 2.1 of the EPA Act relating to 'Combustion of fuels in installations with a total rated thermal input of 50 MW or more'. This licence covers the back-up generators to power Buildings A, B and C on the site, which are already in operation. Regarding the operation of generators outside of standard generator testing/maintenance, Condition A.1.1 of the licence states that, '*Generators shall not be operated for more than 72 hours annually. Generators shall not be operated at more than 90% load*'.

11.10.16. Results were not presented separately as the combined results of both testing and emergency operation that should be compared to the ambient air quality standards.

11.10.17. Both the PA and the appellants queried the rationale behind the 72-hour time frame for testing. Appellants also submit that insufficient information had been submitted to guarantee that the generators would be for emergency use only and that EirGrid may require the development to use on-site generation during times of grid constraint. It was also contended that the assessment of the impact from the generators in terms of air quality, (NO<sub>2</sub> in particular), was insufficient.

11.10.18. The applicant states that the back-up generators are designed to operate in response to power losses caused by unplanned events and planned events. The frequency of unplanned events varies from low frequency, (once a year), to very low frequency, (every 20+ years). The time frame of 72 hours is derived from an internal design standard for the applicant's data centre facilities which allows sufficient time to provide services to customers. This is applied across all countries notwithstanding some regulatory frameworks which allow for a higher allowance. The 72-hours availability is based on a conservative worst-case scenario in consideration of historic events and an assessment of future risk. There is a possibility that the data centre could be requested by EirGrid to use their onsite generators as part of a 'Load-Shedding' exercise in the event of a System Emergency. Should this occur, the applicant is obliged to follow such a request in line with their connection agreement. The applicant notes that such requests are factored into the assumption of backup generator use modelled in the EIAR and that the permitted development

on the wider landholding have not exceeded 18 hours operation in line with the EPA information note on the *Operation of emergency generation plant by large energy users, (2021)*.

11.10.19. The proposed development is predicted to generate 73.1 MW of electricity when it is operational. The NO<sub>x</sub> emissions associated with this electricity (based on the carbon intensity of the energy mix at the time of the application) over the course of one year would equate to 84 tonnes per annum which is 0.12% of the National Emission Ceiling for Ireland from 2020 onwards. Similarly, SO<sub>2</sub> (sulphur dioxide) and NMVOC (Non-methane volatile organic compounds) associated with the electricity generation would equate to 0.19% and 0.01% respectively of the National Emission Ceiling limit for such emissions in Ireland. The entire masterplan development would have a total energy demand of 219.7 MW which would result in NO<sub>x</sub> levels that would represent 0.37% of the National Emission Ceiling for Ireland and SO<sub>2</sub> and NMVOC levels which would represent 0.56% and 0.03% respectively.

11.10.20. The grounds of appeal queried whether the proposed development should be dealt with through the Strategic Infrastructure Act as it was estimated that the development would have a power consumption of 219.7MW, which would require a thermal 440Mw to 550MW. This level of power generation would bring the project within the scale and jurisdiction of the Strategic Infrastructure Act 2006 as the thermal input would exceed 300MW. The Seventh Schedule of the Planning and Development Act 2000 (as amended) refers to a thermal power station with a total energy output of 300MW. The proposed development is for a data centre, which is not a power station. Therefore, the proposed development does not come within the scope of Strategic Infrastructure Developments.

11.10.21. The application documentation states that the applicant has signed a supply agreement with a HVO diesel supplier to fuel the generators. However, the dispersion model has been based on the generators being fully fuelled by fossil fuel (diesel) rather than HVO diesel.

11.10.22. Based on the foregoing, I am satisfied that the applicant has considered the cumulative impact of the permitted and neighbouring development on air quality and has justified the methodology applied to the scenario testing and the time frame allowed for in the modelling. I am also satisfied that the 72-hour total time frame is a

conservative estimate for the generator use based on the information supplied on the existing operations on the site. In terms of the potential impact on human health as raised in the grounds of appeal, the projected emission rates from the proposed development would be within the ambient air quality limit values as specified in the relevant EU and national legislation. Furthermore, the use of HVO fuel to power the generators has not been factored into the air dispersion model, which would further reduce emissions. On this basis, I am satisfied that the emissions from the proposed development would not result in a significant impact on human health. The validity of HVO as a mitigation measure is also raised in the appeal and is assessed in the Climate section below.

### **Conclusion**

- 11.10.23. I consider the applicants assessment has identified the relevant issues in relation to Air Quality and that the methodology and modelling applied is sound and robust and that no significant adverse effects are likely to arise.
- 11.10.24. The proposed development will be subject to an Industrial Emissions (IE) licence relating to the 'combustion of fuels' from the proposed generators. An IE licence is already in place for the existing development on the site (Ref. P1182-01), for an activity under Class 2.1 of the EPA Act relating to 'Combustion of fuels in installations with a total rated thermal input of 50 MW or more'. This licence covers the back-up generators to power Buildings A, B and C on the site, which are already in operation. Regarding the operation of generators outside of standard generator testing/maintenance, Condition A.1.1 of the licence states that, *'Generators shall not be operated for more than 72 hours annually. Generators shall not be operated at more than 90% load'*.
- 11.10.25. Comments submitted by the EPA to the PA note that the existing licence may need to be updated to include the development proposal. However, in accordance with Section 87(1D)(d) of the EPA Act, the Agency cannot issue a determination on a licence application which addresses the subject development until a planning decision has been made.
- 11.10.26. The existing licence on the site also contains conditions which relate to the release and monitoring of emissions from the site which includes airborne emissions.

## **Climate**

### ***Issues Raised***

11.10.27. The grounds of appeal raise concerns about the impact of the development on climate and on Irelands ability to comply with legally binding carbon budgets and sectoral emissions ceilings. It is submitted by third parties that the information on climate in the EIAR is not sufficient to address the impact of the development on climate. In the critique of the EIAR, the appellants submit that the assumptions used in the forecasting for energy use / GHG emissions are not correct and that the overall impact of the proposal has been incorrectly categorised. Concerns were also raised regarding mitigation measures. Appellants suggests that the mitigation measures relied are outside of the control of the applicant as they are dependent on the achievement of national targets. It is also put forward that the report on carbon emissions during construction omits embodied carbon on the large quantities of steel and concrete used in the construction. Queries were also raised regarding the effectiveness of CPPA as a mitigation measure and whether it complies with government policy regarding additionality.

### ***Context and Baseline***

- 11.10.28. Regarding context and baseline information for climate, the EIAR contains a review of relevant national and EU legislation and climate agreements which aim to reduce the impact of climate change and to limit global temperature increases.
- 11.10.29. The most relevant EU policy for the subject proposal is the EU ETS which covers emissions of Carbon Dioxide CO<sub>2</sub> from power and heat generating facilities as well as energy-intensive industry sectors. As the proposed development, and the overall masterplan project, will have a thermal input greater than 20MW, a GHG emission permit is required from the EPA. This permit will allow for monitoring, reporting and verification of emissions which is required under the EU-wide Emission Trading System (ETS).
- 11.10.30. For activities that are outside of the ETS, the EU Effort Sharing Regulation (ESR) applies. The ESR sets binding annual GHG emission targets for Member States for the reduction of GHG emissions to 2030 and includes domestic transport, buildings, agriculture, small industry and waste. Irelands 2030 target under the ESR is to reduce its GHG emissions by at least 42%. At a national level, the *Climate*

*Action and Low Carbon Development (Amendment) Act 2021* provides for the establishment of carbon budgets as interim milestones on the overall trajectory to a net zero economy in 2050. Each budget spans a 5-year period with the second budget expiring in 2030. A 51% reduction in GHG emissions was set as a budget target to 2030. Sectoral Emissions Ceilings (SEC) are set for each sector within the carbon budget. The SECs set out the maximum amount of GHG emissions that are permitted in different sectors of the economy during a budgetary period. The SEC for Electricity is 40 Mt CO<sub>2</sub> eq to 2025 and 20 Mt CO<sub>2</sub> eq to 2030.

**Potential Effects Table**

<b>Summary of Potential Effects (Air Quality and Climate)</b>
<b>Do Nothing</b>
Climate – <ul style="list-style-type: none"> <li>• No additional GHG emissions will occur.</li> <li>• The permitted development will continue to operate and seek to lower its GHG emissions as part of their global initiative.</li> </ul>
<b>Construction Impacts</b>
Climate - <ul style="list-style-type: none"> <li>• Embodied carbon in construction materials will lead to indirect emissions GHG emissions.</li> <li>• Emission of air pollutants and GHG from construction traffic.</li> </ul>
<b>Operational Impacts</b>
Climate – <ul style="list-style-type: none"> <li>• There will be additional GHG emissions from the operation of emergency generators and from will traffic accessing the site.</li> <li>• There will be an indirect impact from GHG emissions from electricity to operate the data centre.</li> </ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"> <li>• The cumulative impacts in terms of energy use for the permitted, proposed and future development were assessed.</li> <li>• IEMA guidance does not recommend selecting specific projects for cumulative impact as all projects have the potential to impact on climate.</li> </ul>

## ***Mitigation***

- 11.10.31. During the construction phase, mitigation measures included in the OCEMP will be implemented. These include good vehicle management to ensure all vehicles are in good working order with engines switched off when not in use, sourcing local materials and reusing building materials where possible. A Carbon Assessment was prepared and submitted to the PA under FI. Mitigation measures to reduce embodied carbon were outlined in the assessment and include using materials with lower embodied carbon and reducing site material waste and on-site electricity and fuel usage by 50%, from the initial assessment in the EIAR.
- 11.10.32. During the operational phase mitigation measures have been designed into the development to reduce its energy consumption. The building has been designed to use evaporative cooling systems which reduce the level of energy and water required. A total of 285 PV panels would be installed on the roof of Buildings E and F to offset the lighting and IT electrical power requirements of the buildings. It is proposed to power the generators with HVO diesel which is lower in emissions than fossil fuel diesel. A rainwater harvesting system will be used for cooling to reduce the need of water from the mains. The development includes heat distribution pipework to the site boundary to allow heat recovery equipment to be installed later. This would allow the development to provide recycled heat to a District Heating Network.
- 11.10.33. The applicant will enter into a Corporate Purchase Power Agreement (CPPA) with a renewable energy provider to help power the development. The EIAR states that in Q1 2023, the applicant issued a request for proposal to the renewable energy market requesting renewable energy developers to present their proposed development pipeline and terms to align with future requirements. At the time the FI was submitted the applicant had received submissions from several projects. I note to the Board that a condition was attached to the PA's notification of decision which requires the applicant to enter into a CPPA which demonstrates that the energy consumed on the site is matched by new renewable energy generation. The issue of CPPA's and Condition No. 13 was raised in the grounds of appeal and is addressed in full in the Analysis and Evaluation section below.

11.10.34. The applicant also outlines their global commitments to reduce their impact on climate change and states that they are a signatory to the Climate Neutral Data Centre Pact.

### ***Residual Effects***

11.10.35. During the construction phase, GHG emissions from traffic and plant are unlikely to make a significant impact on climate compared to the operational phase. The EIAR predicts that, based on the scale and temporary nature of the construction works and the intermittent use of equipment, the residual impacts will be 'short-term, imperceptibly negative and not significant' in relation to Ireland's obligations under the EU 2030 target.

11.10.36. For the operational phase the EIAR notes that the development will result in additional GHG emissions. The main generator of GHG emissions from the development will be indirect emissions from the generation of electricity to power the development. Direct emissions will be from the intermittent testing or emergency use of the back-up generators.

11.10.37. The EIAR (addendum) assesses the impact of the direct and indirect CO<sub>2</sub> emissions to operate the development in the context of Ireland's national annual CO<sub>2</sub> emissions to the year 2030. Tables 1.6 and 1.8 of the EIAR addendum in the Further Information Response sets out the projected GHG emissions for the proposed development and for the overall project. The figures show a reducing level of emissions from the proposal and are based on assumptions relating to carbon intensity and the level of renewables in the power supply in the relevant years to 2030. Regarding residual effects the EIAR states that the impact of the mitigation measures for the proposed development and the overall project will be to ensure that the development will have in effect net zero GHG emissions when the adaptive measures and CPPA are accounted for. It is therefore predicted that the impact of the development during its operational phase will be 'indirect, long-term, negative and minor adverse'.

11.10.38. The assessment was carried out using the methodology contained in the IEMA guidance on assessing GHG emissions, as requested by the PA. I note to the Board that the grounds of appeal disagree with the predicted impact of the

development and with the assumptions used in the model. Both issues will be addressed in the following section.

### ***Analysis Evaluation and Assessment: Direct and Indirect Effects***

11.10.39. This section of the report includes an assessment of the issues raised in the grounds of appeal which relate specifically to the EIAR. In summary, the appellants raised concerns regarding the adequacy of the climate assessment, the effectiveness of the mitigation measures proposed and the accuracy of the predicted impacts. The appellants also queried the impact of the proposal on national climate policy and how the development would align with the achievement of national climate targets. This issue is addressed in the Assessment section of this report, Section 10.0.

#### EIAR Climate Assessment

11.10.40. The grounds of appeal queried the methodology used in the climate assessment of the EIAR. It was submitted in the appeal that the assessment relied on the national target to achieve 80% renewable energy to 2030, which is outside of their control, and which is unlikely to be achieved. In applying this methodology, the appeal states that the overall impact is incorrectly assessed as the worst-case scenario is not put forward. Furthermore, it is argued that the alignment of the development with national targets is flawed as the methodology assumes that any development that draws energy from the national grid would be assessed as being in-line with national targets. Consequently, all proposed developments could be described as having impacts that are not significant or slightly adverse.

#### Assumptions used

11.10.41. The climate assessment in the EIAR and the addendum EIAR focused on the impact of the development in terms of GHG emissions for the operational phase. The assessment acknowledged that the impact of the development during the construction phase of the project would be insignificant in comparison to the operational phase. The grounds of appeal focused mainly on the impact of the proposal during the operational phase, which is what I will address in detail.

11.10.42. In their assessment of the application, the PA requested that the applicant apply the methodology outlined in the IEMA guidelines on '*Assessing Greenhouse Gas Emissions and Evaluating their significance*', (2022). The applicant noted that

this guidance was applied in the original EIAR but prepared an addendum report to Chapter 9 of the EIAR in response to the request. This response and the findings of the addendum EIAR were accepted by the PA following a review by independent experts.

11.10.43. In determining whether the methodology and assumptions used in the assessment are robust, a review of the IEMA guidelines on '*Assessing Greenhouse Gas Emissions and Evaluating their Significance*' is required. The guidelines set out five general principles for the quantification of GHG which include the following,

- The GHG assessment should seek to quantify the difference in GHG emissions between the proposed project and the baseline scenario. Assessment results should reflect the difference in whole-life net GHG emissions between the two options.
- The assessment must include all material emissions (as per Section 5.3 Step 3, below), direct and indirect for the whole life of the project.
- The boundary of the assessment should be clearly defined.
- The assessment should present a reasonable worst-case scenario and,
- Any exclusions, limitations, assumptions and uncertainties should be justified and reported where appropriate.

Section 5.3 of the IEMA guidelines on '*Assessing Greenhouse Gas Emissions and Evaluating their Significance*' sets out six steps of GHG emissions assessment,

1. Set the scope and boundaries of the GHG assessment
2. Develop the baseline
3. Decide upon the emissions calculation methodologies
4. Data collection
5. Calculate/determine the GHG emissions inventory
6. Consider mitigation opportunities and repeat steps 4 & 5.

11.10.44. Section 6 of the Guidelines deals with significance and how the impact of a development in terms of GHG emissions can be categorised. The guidance states that the crux of significance is not whether a project emits GHG emissions or even

the magnitude of the emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050. Embedded and additional mitigation measures are addressed in Sections 6.5 and 6.6 respectively.

- 11.10.45. In their response to the appeal, the applicant outlines how they applied the methodology on a step-by-step basis.
- 11.10.46. Step 1 - Set the scope and boundaries of the GHG assessment – The applicant states that the scope of the GHG assessment includes both existing and proposed development on the site. The assessment is based on the use of electricity to power the facility in addition to the backup generators. As the operational power supply is from the electricity grid, the worst-case scenario for GHG emissions is prior to grid decarbonisation with the impact reducing as grid decarbonisation progresses further. Therefore, the applicant calculated the emissions from the operational phase of the development for the opening year of 2025 and assessed this against the fuel mix powering the national grid at that time.
- 11.10.47. Step 2 - Develop the baseline - the baseline was developed from 2021 figures whereby the total GHG emissions in Ireland were estimated to be 61.528 Mt CO<sub>2</sub>eq. The applicant notes that the energy sector had the third highest percentage (16.7%) of GHG emissions in 2021, (i.e. 10,272 kilotonnes of CO<sub>2</sub>eq).
- 11.10.48. Step 3 - Decide on the emissions calculation methodologies & Step 4 – Data Collection – In their response to these steps, the applicant cites the High Court judgement, *Coyne v AN Bord Pleanála* [2023] IEHC 412, which references EU *Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment 2013. ‘Assessing Significant Effects’* (2013). The applicant states that this judgement addressed the issue of uncertainty and how that should be addressed. EU Guidance referenced in the decision states that, *‘There are three fundamental issues when addressing climate change and biodiversity; the long term and cumulative nature of effects, complexity of the issues and cause-effect relationships, and uncertainty of projections’*. In outlining the challenges for addressing climate change in biodiversity, the guidance recommends that the assessor ‘be comfortable with uncertainty’ and to use tools such as scenarios to help handle the uncertainty inherent in complex systems and imperfect data.

11.10.49. The applicant states that a reasonable worst-case scenario was established using the EU and IEMA guidance. It is argued that a conservative estimate was applied as it was assumed that the development would operate at 100% capacity in 2025, which was selected as the opening year. In reality the development, and associated energy demand, will ramp up over a period of 2.5 years. It was also assumed that the development would require a continuous 100% operational load, whereas it is more likely to be closer to 80%. The methodology applied first determined the predicted GHG emissions for the opening year, which was determined to be 2025.

11.10.50. Baseline figures were taken from the Sustainable Energy Authority of Ireland (SEAI) (2020) website which stated that the average CO<sub>2</sub> emission factor for electricity generated in Ireland in 2021 was 348gCO<sub>2</sub>/kWh, and for diesel it was 263.9gCO<sub>2</sub>/kWh. For the year 2025, (the predicted opening year), predicted GHG emissions were based on the expected national GHG emission rate in 2025 as taken from ESB projections to 2030, (ESB, 2020). The expected values are set out in Table 1.6 of the EIAR addendum. The results of the assessment for the proposed development assume a carbon intensity, (i.e. how many grams of CO<sub>2</sub> are released to produce a kilowatt hour (kWh) of electricity), of 237g CO<sub>2</sub>/kWh in 2025 and 100g CO<sub>2</sub>/kWh carbon intensity in 2030. In their response to the appeal the applicant included correspondence from SEAI which confirms that the projection at that time, (October 2023) was estimated to be 92.9g CO<sub>2</sub>/kWh in 2030. However, this figure assumed that the targets in the 2023 CAP would be achieved. Therefore, the prediction in the climate assessment of the EIAR (100g CO<sub>2</sub>/kWh to 2030) was a more conservative estimate. Furthermore, the response notes an additional conservative assumption in that the electricity grid reaches net zero in 2050. However, modelling by UCC/MaREI (in '*Networks for Net Zero – Delivering the Electricity Network for Ireland's Clean Electric Future*', (ESB Networks,2023) outlined that a new zero GHG emissions pathway for the national grid is achievable by 2040. On this basis, the applicant submits that the assessment used in the EIAR is based on a conservative approach which is in line with the precautionary principle. The applicant argues that they have put forward a 'reasonable worst-case scenario' which is based on conservative assumptions for the predicted level of CO<sub>2</sub>/kWh to 2030, the achievement of net zero to 2050, when studies show this might be sooner,

and the predicted power generation mix from Eir Grid which (at the time of writing) was forecast to be 83% renewable rather than the assumed 80% renewable generation in 2030.

11.10.51. In response to the appellants assertion that a worst-case scenario should have been based on 100% conventional energy generation, the applicant argues that this scenario does not reflect reality either in the opening year of 2025 or in 2027 when the development is at full capacity. Therefore, the argument is without merit and goes against all Government policies and follow-on Action Plans.

11.10.52. Step 5 – Calculate the GHG Emissions Inventory – In assessing the overall impact of the proposal on climate the applicant first calculated the level of energy usage on an annual basis and converted this to the volume of CO<sub>2</sub> this would generate. Based on the full power demand of 73.1 MW for the proposed development in 2025, the development would result in a carbon intensity of 151,920 CO<sub>2</sub>/kWh in the opening year. This figure reduced to 65,124 CO<sub>2</sub>/kWh in 2030 and 49,247 in 2035 based on the assumptions outlined above. These figures are detailed in Table 4 of the Technical Response to the appeals, which also contains the assumed figures for the ‘ramping up’ of the development to its full demand.

11.10.53. Development already permitted on the site and currently operating, was calculated to consume 110.6MW of power annually, based on the use of electricity from the national grid for 8,688 hours per year to power the data centre with an additional 72 hours per year for the diesel generators. This would equate to 970 GWh annually which would translate to approximately 229,855 tonnes of CO<sub>2</sub> per year, (including generator testing), based on the likely 2025 electricity mix, (set out in Table 1.7 of the addendum EIAR). This figure would reduce to approximately 98,533 tonnes of CO<sub>2</sub> per year in 2030 based on the likely electricity mix. Using the same methodology, the applicant predicts that the CO<sub>2</sub> eq for the permitted development would decrease from 229,855 CO<sub>2</sub>/kWh in 2025 to 98,533 CO<sub>2</sub>/kWh in 2030.

11.10.54. Based on the figures outlined the existing and proposed development would have a combined energy demand of 183.7MW when the proposed development was operating at capacity. The grounds of appeal note that the figures presented in the Oral Hearing for the original development, (ABP-PL06F.248544), represented a total power demand of approximately 205MW for the entire masterplan, i.e. the permitted,

proposed and future development. The projected figure put forward in the EIAR is c. 219 MW for the entire masterplan development.

11.10.55. Step 6 of the Guidelines relates to the consideration of mitigation measures. As the mitigation measures proposed are contested in the appeal, I will first consider whether the methodology applied to the assessment is in line with IEMA guidance. I am satisfied that the assessment set out the scope and rationale for the methodology. The assessment covered both the construction and operational phase of the development. As the operational phase was deemed to be the most intensive, the assessment focused on the indirect impacts of the development from the electricity required to power the development. The impact of the operational phase of the Proposed Development on climate was determined by an assessment of the indirect CO<sub>2</sub> emissions associated with the electricity supplied from the national grid. The methodology is set out in Section 9.7.2.3 of the EIAR and is expanded on in the applicant's response to the appeal. The assumptions used are contested by the appellants, who argue that they are unrealistic and depend on third party interventions which are outside the influence of the applicant.

11.10.56. I am satisfied that the applicant has justified their application of Steps 1 to 5 of the GHG emissions assessment which is outlined in Section 5.3 of the IEMA guidelines. They have defined the scope of the assessment, set the study boundaries, decided and outlined the assessment methodology, collected the necessary calculation data and determined the GHG emission inventory. Section 58.8 of the guidelines deals with 'study uncertainty' and states that *'Uncertainty can arise from quality of data, study boundaries and period of assessment etc. and can never be eliminated from a study...If the scale of uncertainty provides findings that are likely to change any decision based on the data then it should be appropriately reduced.'*

11.10.57. Whilst the baseline figures can be calculated using the existing figures, a level of uncertainty exists when assuming the level of emissions into the future. To address this, the applicant used the targets in the 2021 CAP, which assumed the provision of 80% renewable energy in the national grid in 2030 as well as projections from the ESB regarding energy mix in the national grid. The appellants argue that the targets are not guaranteed, and that the assumption is unrealistic based on figures from the EPA report, *'Ireland's Greenhouse Gas Emissions Projections,*

2023-2050', (May 2024). This report was published after the application and EIAR was submitted and is the most up to date information on the status of Ireland's GHG emissions at the time of writing. In summary, the EPA report found that Ireland is not on track to meet its EU target of 42% reduction in GHG emissions set by the EU's Effort Sharing Regulation (ESR) and adopted in the 2021 CAP. However, I note that regarding Electricity Generation the report states that, '*Emissions from the Energy Industries sector are projected to decrease by between 57 and 62 per cent over the period 2022 to 2030. Renewable energy generation at the end of the decade is projected to range from 69 to 80 per cent of electricity generation as a result of a projected rapid expansion in wind energy and other renewables.*'. The EPA report also states that Ireland is not on track to meet the 51% emission reduction goal in 2030 from 2018 levels as required by the Climate Act (2021). It is also stated in the report that the Sectoral emissions ceilings for 2025 and 2030 are projected to be exceeded in almost all cases, including Agriculture, Electricity, Industry and Transport.

11.10.58. In response to the appeal, the applicant argues that they presented a 'Reasonable Worst-Case Scenario' as recommended in the IEMA guidelines and that the figures used are based on a conservative estimate of GHG generation based on reductions in fossil fuel energy production in line with government policy. Projections from EirGrid, ESB and UCC/MaREI are used to support the projected achievement of the 80% renewable figure.

11.10.59. Since the application was lodged, the 2024 Climate Action Plan has been published. The 2024 plan recognises that there are significant challenges to decarbonising the energy sector in the country. However, in Section 12.3 – Emissions Projections for Electricity, the plan quotes the 2023 SEAI annual energy projections. Key conclusions from the projections state that, '*In all modelled scenarios presented...variable renewables are the largest input to electricity generation by 2030, with a sharp increase anticipated later in this decade due to assumed connection of large offshore wind projects;*' The SEAI projections also note that the deployment of renewables needs to outpace the growth in energy demand. Section 12.4.1 of the 2014 CAP sets out the measures required to meet the required emissions reductions to 2030.

11.10.60. Whilst uncertainties exist regarding the achievement of national emissions targets to 2030, the 2024 CAP includes a figure of 80% renewable energy as a KPI in 2030 and sets out a range of actions to help achieve this goal. Therefore, I accept the rationale that the assessment is based on the conditions at a fixed period of time and the assumption used represent an ultimate target to be achieved. It could be argued that, based on the difficulties outlined in achieving national targets, that an alternative and lower assumption could also be modelled in the assessment. However, I acknowledge that the EPA report and the 2024 CAP were published after the application was submitted and the overall information relating to climate is a rapidly changing environment. I do not agree with the appellants argument that the assessment should have been modelled on a scenario whereby the development was fully powered by fossil fuels. In my view, this does not represent a realistic scenario as the national grid is currently supplied by a mix of energy sources and will continue to do so at varying levels.

11.10.61. The IEMA guidelines acknowledge that there are many different assessment methods available for measuring and quantifying GHG emissions. Therefore, any assessment should follow the principles set out in Section 5.3 of the IEMA guidance and outlined in paragraph 8.9.39 above. Based on the foregoing, I am satisfied that the assessment has applied the recommended principles for GHG quantification and that the steps to GHG emissions assessment have been applied.

#### Mitigation Measures

11.10.62. The application and EIAR outline a range of mitigation measures to be applied to the development. I have outlined the measures in paragraphs 8.9.22 – 8.9.30 above. They are also contained in Section 9.6 of the EIAR and Section 6.2 of the addendum EIAR. The measures include integrated design measures, good practice construction measures and measures to be applied in the operational phase. Specific objections were raised in the grounds of appeal to the use of Hydrated Vegetable Oil (HVO) diesel in the back-up generators and the use of Customer Power Purchase Agreements (CPPAs) as mitigation for the operational phase. The appeal submits that HVO is not carbon neutral, that the environmental costs due to landuse changes are high and that difficulties exist regarding traceability and control with a potential for palm oil use and soy. It is also subject to availability which is unreliable.

- 11.10.63. The response to the appeal states that the applicant signed a supply agreement with a supplier (Certa) to provide HVO diesel to their Dublin operations, including the proposed development. This means that all back-up generators for the site will be fuelled by HVO. The applicant acknowledges that there are legitimate concerns regarding some mixes of renewable fuels and their purchase agreement with the supplier excludes the use of palm or soy oil. They are also satisfied that the bona fides of the supplier and supply chain are sound and comply with the requisite regulations. The response notes that the use of HVO to fuel the generators will make a significant difference to the GHG emissions from this source as the European Environment Agency found that HVO has the advantage of lifecycle GHG emission reductions of greater than 75% compared to fossil fuel derived diesel.
- 11.10.64. I acknowledge and accept the concerns of the appellants regarding the environmental integrity of HVO fuel which are valid. However, in terms of mitigating the impact of emissions from the back-up generators, the use of HVO would be effective. I am satisfied that the use of HVO as a mitigation measure would be acceptable on the basis that it is sourced from a reputable supplier and complies with the requisite regulations and certifications.
- 11.10.65. In the EIAR and the addendum EIAR, the applicant committed to entering a CPPA for renewable energy. They also welcomed the provision of a planning condition which required them to enter a CPPA which demonstrated that the energy consumed by the development is matched by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Irelands' Enterprise Strategy. A planning condition, (No. 13) to this effect was attached to the decision of the PA. The appellants argue that the use of CPPA does not guarantee 'additionality' of renewables to the national grid and instead will result in the purchase of a renewable project that is already in the planning process. Through interventions in this manner, it is submitted that the demand from LEUs will offset the advantage of the renewables in the national grid which will make the achievement of legally binding targets even more difficult as demand will outstrip supply.
- 11.10.66. In response, the applicant contends that planning condition No. 13 will ensure that the developments energy use will be met with new renewable generation so that achieving the goal of the Climate Action Plan requirement for 80% renewable energy is not made more challenging. Regarding the energy demand outstripping renewable

supply, the applicant states that a connection agreement for the overall site, including the proposed development has been in place since 2017 and remains valid. This means that the development's projected energy usage has already been accounted for by the Transmission Services Operator and does not constitute additional unplanned demand.

11.10.67. To support this argument the applicant notes that the Government's *'Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings (2022)'* provides details of the analysis and research that informed the preparation of the sectoral emissions ceilings. For the electricity sector, demand growth was assumed in line with the median growth scenario projected by the EirGrid Generation Capacity Statement 2020 to 2029. The demand growth forecasted in the *'Summary of Analysis to Support Preparation of the Sectoral Emissions Ceilings 2022'* is influenced by several factors including contracted data centre capacity. This was considered in developing the sectoral emissions ceilings and therefore includes the growth of data centres with contracted demand such as the subject proposal. Therefore, the applicant argues that the demand from the proposed development has been factored into the demand projections and the sectoral emissions ceilings and that it does not represent additional demand. It is further submitted that the use of CPPA will be bringing forward renewables for contracted data centre demand, which is already accounted for in CAP 23, and CAP 24 which carries forward demand predictions. The role of CPPA in decarbonising the electricity sector and managing the demand growth from LEUs is acknowledged in the Government Statement on Data Centres. In terms of mitigating GHG emissions, I am satisfied that the use of CPPA is an effective measure and can be applied to the proposed development. Should permission be granted for the development I recommend that a planning condition requiring CPPA be attached. However, the appeal also questioned whether the use of CPPA provides 'additionality' of renewables. It is put forward that 'additionality' only occurs where a renewables project would not have happened in the absence of CPPA.

11.10.68. In response to this issue the applicant states that the demand from the proposed development has been factored into the Sectoral Emissions Ceilings. As the proposed development would be bringing forward renewables for contracted demand which is already accounted for within CAP 23 (and subsequently CAP 24)

the commitment to deliver a CPPA in line with Condition No. 13 will adhere to an enhance the same efforts established under CAP 23. The applicant notes their record in delivering on its climate and sustainability commitments and states that they work with energy companies around the globe to develop new renewable projects. Details of the projects and the applicant's commitments to net zero and sustainability are contained in the EIAR and addendum EIAR. The response to the appeal notes that the applicant was the first company to enter into unsubsidised CPPAs in Ireland and lists three Irish projects which they have entered into agreement with.

11.10.69. A CPPA is an arrangement whereby a company procures renewable electricity through a direct contractual agreement with a renewable energy generator. CPPAs supplement the renewable electricity that is supported and paid for by interventions such as the Renewable Electricity Support Scheme (RESS). The Government document, *The Renewable Electricity Corporate Power Purchase Agreements Roadmap (2022)* (the CPPA Roadmap) states that by using power purchase agreements, a corporate energy consumer has the potential to increase the amount of renewable energy produced in Ireland and hence reduce the level of GHG emissions as long as the contract results in *additional renewable capacity*. (emphasis added). The CPPA Roadmap references the issue of additionality as one of a number of considerations that need to be addressed to ensure that CPPAs align with policy and targets set out in the CAP 2021. With regard to additionality, the Roadmap states that, *'If CPPAs simply purchase certificates from projects that would have existed anyway, especially those that have been already funded under schemes supported by the PSO levy (Refit schemes or the RESS) they may not contribute to additional decarbonisation, which would not achieved the benefits of such contracts for all electricity users and harm public trust. CPPAs for new non-subsidised or repowered projects should be prioritised'*. The Roadmap also states that GHG emission reduction is one of seven core principles to help ensure that corporate power procurement contributes to delivering on Ireland's climate targets. With regard to GHG emission reduction the Roadmap states that the CPPA should *'clearly delivers additional GHG emission reduction and contributes to Ireland's 2030 climate and renewable energy targets'*. This principle is further expanded on and states that large energy users should ensure that their electricity demand is not

driving carbon emissions in a whole system perspective and ensure that their low carbon power procurement is delivering additional carbon-reduction, for example, *driving new investments in technologies and solutions that would not have existed otherwise and are not fully funded by all customers through the PSO levy and network tariffs*'. (PSO levy – Public Service Levy which is charged to all electricity customers to support renewable generation).

11.10.70. The Roadmap also notes that keeping RESS and CPPAs separate leads to clearer additionality for CPPAs...CPPAs may have a role to play in providing a route to market for renewable projects that might not be suitable for RESS and therefore have a role to play in complementing the RESS auctions and ensuring a steady pipeline of projects connecting to the grid.

11.10.71. The Government Statement on the Role of Data Centres builds on the principles established in the CPPA Roadmap. It includes 'Renewables Additionality' as one of the principles for sustainable data centre development and notes that the 'Government has a preference for data centre developments that can demonstrate additionality of their renewable energy use in Ireland. Developments should provide clear additionality in renewable energy delivery in Ireland whether through new generation repowering or otherwise increasing in country renewable energy capacity - proportionate to the impact of their energy demand'. The Statement further notes that outside of the RESS, a number of CPPAs have been executed by data centres to finance renewable energy projects, and data centres that purchase CPPAs that add additional renewables, can play a positive role in Ireland's renewable energy transformation.

11.10.72. Government policy clearly supports the use of CPPA as a mechanism to support the delivery of renewable energy. The appellant also acknowledges that it has a role to play in supporting the renewable energy industry by supporting and/or providing a route to market. However, the issue of CPPA use hinges on whether they are suitable as a mitigation measure or whether they can provide 'additionality'.

11.10.73. In response to the appeal, the applicant states that they work with energy companies to develop new renewable projects dedicated to serving its load. RESS and CPPA provide a mechanism to reduce the risk in investing in such projects by providing certainty of revenue. Thus, enabling the project to achieve financial close

and progress to construction. Therefore, the applicant's procurement of renewable energy, via CPPA provides the energy company with such a financial commitment. The assertion that the use of CPPA applies to projects that are already in the pipeline and that would have been delivered without such intervention is not technically accurate. Renewable energy projects require a confirmed route to market to be developed and not all renewable projects can or will be successful in RESS. CPPAs play an important role in this context by offering an alternative route to market.

11.10.74. Whilst I acknowledge the principle of the appellants argument that 'true' additionality can only be proven where a renewable project is delivered in tandem with a development or where it wouldn't have occurred anyway, I accept the applicant's response that a route to market for renewable projects is not guaranteed just because the project is in the planning system. Furthermore, regarding GHG emissions reduction, the CPPA Roadmap states that 'additional carbon reduction' can be delivered through driving new investments in technologies and solutions that would not have existing otherwise and that are not funded through the PSO levy and tariffs. It also states that CPPA for non-subsidised (RESS) or repowered projects should be prioritised.

11.10.75. Government policy seems to present the option that additionality can be provided through CPPA in projects that are not subsidised by PSO or through RESS. This is stated in the CPPA Roadmap and the Government Statement. However, in my opinion, a level of uncertainty exists in publicly accessible policy and documentation as to how 'additionality' can effectively be measured for the purposes of planning consent. In the absence of this clarity, I accept the assertions in the CPPA Roadmap and the Government Statement that additionality can be provided through the use of CPPA in projects that are not otherwise subsidised or taking part in the RESS. I also acknowledge the policy that 'additionality' in carbon reduction can be provided through investment in new technologies that are not funded through the PSO levy. With regard to the application of Condition no. 13 as a mitigation measure, I note that the Development Management Guidelines for Planning Authorities (2007) require that planning conditions be necessary, relevant to planning, relevant to development, precise, enforceable and reasonable. I accept the view of the appellant that the condition does not require 'additionality' and I would

argue that in the absence of a clear direction to measure additionality, that such a wording would be unreasonable and unenforceable.

11.10.76. Within the context of current Government guidance, I consider the wording of Condition No. 13 to be acceptable as it requires that the renewable energy projects are not supported by government or public subsidies, that the projects are located in Ireland, are provided by the applicant's group, that the energy is not being generated at the date of the permission that the energy to be generated by the project shall be equal to or greater than the energy requirements of the data centre at any given time and that the project shall be operational prior to the commencement of the operation of the data centres. Should the Board be minded to grant permission for the development, I recommend that the condition is attached. Furthermore, in response to appellants concerns that the impacts of the renewable energy projects had not been considered, each project would be subject to EIA, therefore the environmental impacts of each development will be assessed on a case-by-case basis.

#### Significance of Impacts

11.10.77. The grounds of appeal argue that the overall significance of climate impacts was underestimated and was not in accordance with IEMA Guidance. The addendum to Chapter 9 concluded that the impact of the proposed development prior to mitigation would be a 'moderate, adverse impact'. Post mitigation, the impact was determined to be a 'minor adverse, non-significant impact'. Table 6 of the addendum chapter (and Table 1.10 in the EIAR) shows the GHG Emissions Associated with Each Scenario (pre and post mitigation) Compared to Sectoral Emission Ceiling and ETS.

11.10.78. It is submitted by the appellants that according to IEMA guidance, any development which results in emissions not consistent with a pathway to net zero emissions must be considered to have a significant adverse impact. In their assessment, the appellant considers the assumption of 80% renewables to 2030 to represent a 'best-case scenario' and that the applicant should have considered the 'reasonable worst-case scenario' to be the use of 100% fossil fuel to power the development. The appellant also considers the assumptions used that represent national targets to achieve 80% renewables to 2030 to be mitigation measures for

the purposes of assessing significance. This issue of assumptions used is addressed above.

11.10.79. The issue of Significance is addressed in Part 6 of the IEMA Guidelines. This section sets out three overarching principles when considering the assessment of significance –

- All new GHG emissions contribute to a negative environmental impact, but some projects will replace existing development or baseline activity that has a higher GHG profile. The significance of a project's emissions should be based on its net impact over its lifetime.
- Where GHG emissions cannot be eliminated the goal of the EIA should be to reduce the projects emissions at all stages.
- Where GHG emissions remain significant, but cannot be further reduced, approaches to compensate the project's remaining emissions should be considered.

11.10.80. In their technical response to the appeal, the applicant notes that the criteria for determining the significance of effects is a two-stage process that involves defining the magnitude of impacts and the sensitivity of the receptors. In relation to climate, the earth is a highly sensitive environment whilst the magnitude of the impact is assessed against IEMA guidance for determining significance. This considers any embedded or committed mitigation measures that form part of the design. The response states that the impact of the operational phase of the development on climate was determined by assessing the direct (due to (worst-case) conventional diesel usage for testing backup generators in the event of a power failure) and indirect (associated with utility supplied electricity) CO<sub>2</sub> emissions over the period 2025 to 2030 (the second climate budget period). The change in the renewable fraction of electricity from the National Grid with time was also considered. The assessment found that with the reduction in residual emissions through best practice and the implementation of a series of adaptive design measures, the net impact of the proposed development and the overall project is not significant. As the applicant assumes that the use of electricity to power the facility will achieve net zero by 2050 and the commitment to meet all interim fossil fuel derived GHG emissions associated with the development through the purchase of

CPPAs, the predicted impact to climate is deemed to be indirect long term negative and minor adverse. In line with IEMA methodology the impact of the overall project is reduced to minor-adverse, non-significant.

11.10.81. The appellant accepts the methodology and conclusion regarding impacts for what they claim to be the 'best case scenario' whereby renewables are included in the energy mix for the development. As noted above, the appellant does not accept the reasonable worst-case scenario and is of the opinion that a scenario where the development is fully fuelled from fossil fuel represents a worst-case scenario. It is their view that the inclusion of renewables in the energy mix represents mitigation. In the addendum EIA, the applicant outlines that the Table 1.10 (and Table 6 of the EIA) shows the significance of the development when compared to the Electricity 2030 Sectoral Emission Ceiling based on the approach set out in the IEMA guidance. The assessment is presented both prior to, and post mitigation. As shown in table 1.10 the impact of the proposed development prior to mitigation is deemed to be a 'moderate adverse impact'. Although the proposed development prior to mitigation is better than the do-nothing scenario which would comprise less energy efficient enterprise computer storage, the impact would still be significant in the absence of appropriate mitigation.

11.10.82. The post mitigation scenario is also presented in Table 1.10. This scenario includes best practise adaptive design measures as mitigation as well as long term corporate power purchase agreements. (Adaptive design measures include HVO diesel, PV panels, rainwater harvesting for cooling, facilitating district heating, energy saving lighting, etc.). With the implementation of these measures the applicant predicts that the impact of the proposed development is reduced to a 'minor adverse non-significant impact' in accordance with IEMA guidance.

11.10.83. IEMA Guidance states that a Moderate Adverse Impact occurs where the project's GHG impacts are partially mitigated and may partially meet the applicable existing and emerging policy requirements but would not fully contribute to decarbonisation in line with local and national goals for projects of its type. A minor adverse impact would occur when the project's GHG impacts would be fully consistent with applicable existing and emerging policy requirements and good practise design standards for projects of its type. A project with minor adverse effects

is fully in line with measures necessary to achieve the country's trajectory towards net zero.

- 11.10.84. A Major Adverse impact occurs where the project's GHG impacts are not mitigated or are only compliance with do minimum standards set through regulation and do not provide further reductions required by local and national policy for projects of its type. A project with major adverse effects is locking in emissions and does not make a meaningful contribution to the respective country's trajectory towards net zero.
- 11.10.85. I have reviewed the methodology applied to determining the significance of the impact and I am satisfied that the pre and post mitigation measures scenarios have been determined in accordance with the guidance set out in Section 6 of the IEMA Guidelines. The inclusion of renewables in the energy mix for the assumptions has been addressed in full in the section above and I am satisfied that it does not represent a mitigation measure for the purposes of determining significance. As noted above, the methodology applied the relevant energy mix at a fixed period in time and extrapolated from that, which is in accordance with IEMA guidance on predicting uncertainty. I am also satisfied that the use of adaptive design measures for the building and its operations, as well as the use of CPPA, represent mitigation measures that are applicable for the determination of the post-mitigation impacts. On this basis I consider the significance of the impacts on climate are in accordance with IEMA guidance and the development would not represent a 'major adverse' impact as defined in the Guidelines.
- 11.10.86. The grounds of appeal also raised the issue of the cumulative impact of the development and other developments if its nature in terms of the overall impact on energy consumption, the generation of GHG emissions and achieving legally binding targets on climate. I am satisfied that the assessment methodology in the EIAR considered both the proposed development and the permitted and future development in various models and scenarios. This is outlined throughout the EIAR and the Air Quality assessment also considered emissions from nearby development. I note that the IEMA Guidelines states that all global cumulative GHG sources are relevant to the effect on climate change. As a result, the effects of GHG emissions from specific cumulative projects should not be individually assessed. This

is due to the fact that there is no basis for selecting any particular cumulative project or projects that has GHG emissions for assessment over another.

11.10.87. The appellant also argues that a nationwide assessment of the data centres is required to adequately measure their impact on climate and energy demand. I agree with the appellant that national figures regarding LEUs would be useful information to have. However, this is not available at the moment and the planning system does not facilitate or require the collection of such data. Therefore, the assessment of the appeal and the Board's decision will be made within the current planning framework and in accordance with current planning policy and guidance.

#### Carbon Assessment

11.10.88. On request from the PA, the applicant submitted a carbon assessment of the likely carbon to be generated during the construction phase of the project. The assessment estimated the Global Warming Potential (GWP) of the carbon generated from the transportation to site and the construction/installation stages of the project, (i.e. stages A4 and A5). This initial assessment estimated that the total carbon likely to be generated during construction stages A4 and A5 would be 68.6kg CO<sub>2</sub> eq/m<sup>2</sup>. When mitigation measures were included, this figure reduced to 37.1kg CO<sub>2</sub> eq/m<sup>2</sup>. The results of the assessment were accepted by the PA, but the grounds of appeal argued that assessment did not consider the earlier stages of the materials production which would include raw material and supply, transport and manufacturing, (i.e. stages A1, A2 and A3). Should this be included, the appellant estimated that the carbon emissions would increase to 764kg CO<sub>2</sub> eq/m<sup>2</sup>.

11.10.89. In response the applicant submitted a carbon assessment that included stages A1 to A3 of the building life cycle. The assessment was based on the information contained in the Bill of Quantities for the development and the architectural drawings. The results estimated that without mitigation the total embodied carbon for stages A1 – A3 would be 517.77kg CO<sub>2</sub> eq/m<sup>2</sup> and with mitigation it would be 246.2kg CO<sub>2</sub> eq/m<sup>2</sup>. Mitigation measures would include the specification for low carbon products and manufacturers, specifying concrete with 40% content of by-product from blast furnaces, (GGBS), and specifying steel with a high recycled content. Based on the results of both assessments the total estimated carbon emission for all five stages of the building life cycle would be 586.3 kg CO<sub>2</sub>

eq/m<sup>2</sup> without mitigation and 283.3 kg CO<sub>2</sub> eq/m<sup>2</sup> with mitigation. The construction phase impacts in the EIAR included the embedded carbon for stages A4 and A5 but did not include stages A1-A3.

11.10.90. During the operational phase of the development, the amount of energy required would equate to 151,920 tonnes of CO<sub>2</sub> eq per year based on the electricity mix when the EIAR was prepared. Whilst the EIAR assessment did not include the embedded carbon in stages A1 – A3, they are not significant in terms of the potential carbon generated during the operational stage of the development. On this basis, I am satisfied that it was appropriate to place the emphasis of the impacts from the development during the operational phase.

### ***Conclusion***

11.10.91. Having examined the EIAR and the addendum submitted as further information, I am satisfied that the methodology followed in the assessment is acceptable based on the assumptions used, which address uncertainty, the forecasting methods applied, the mitigation measures proposed, and the significance of the overall impacts. I consider the methodology and the mitigation measures to be in accordance with the relevant Guidelines and Government policy as it relates to climate and LEUs and that the conclusions reached in the assessment are based on robust modelling.

## **11.11. Noise and Vibration**

### ***Issues Raised***

11.11.1. No issues raised by third parties regarding noise and vibration.

### ***Context and Baseline***

11.11.2. The subject site is in an urban area with large scale industrial and commercial development to the east and residential areas to the west and south. Dublin Airport is approximately 10km to the east of the site. The site is located within Noise Zone C of Dublin Airport. The Noise assessment of the EIAR was updated through further information to take account of inward noise from the airport.

### ***Baseline***

- 11.11.3. Noise surveys were carried out in 2016 and 2022 at four locations which were identified as the closest sensitive receptors to the site, which comprised one hotel and three residential areas. The 2016 survey was carried out prior to the construction of Building A on the site. When the 2022 survey was carried out Building A was operational. Results from the 2002 survey found that typical noise levels for all four locations ranged from 56-63dB  $L_{Aeq,T}$  during the day and 44-54dB  $L_{Aeq,T}$  at night.
- 11.11.4. Acceptable noise levels for the receiving environment were predicted in the EIAR through the application of relevant guidance documents to the baseline noise conditions and predicted noise levels.
- 11.11.5. Construction phase noise levels were determined by applying *British Standard BS 5228-1:2009+A1:2014*. Baseline noise monitoring at the nearest noise sensitive locations indicated that the site would be categorised as Category A under BS 5228. The construction noise threshold value for Category A ( $L_{Aeq,1hr}$  dB) is 65dB for daytime and Saturdays, 55dB for evenings and 45dB for nighttime. Guidance from Transport Infrastructure Ireland (TII) sets out the noise levels that should not be exceeded at noise sensitive locations during the construction phase of a project. The appropriate noise criteria for the site during the construction phase was determined to be 65dB  $L_{Aeq,1hr}$  at a noise sensitive location and 75dB  $L_{Aeq,1hr}$  at a commercial property.
- 11.11.6. For the operation noise levels EPA guidance in NG4 was applied. This advice note was applicable as the existing and proposed development would be subject to an Industrial Emissions Directive (IED) licence from the EPA for the operation of the diesel-powered generators on the site. The criteria set out in the EPA NG4 determined that the site was not in a 'quiet area' or in an 'area of low background noise'. As the development would operate on a continuous basis the consideration of nighttime noise is important. Under the noise emission criteria set out in the EPA guidelines, a nighttime noise level of 45dB  $L_{Aeq,T}$  applies. However, the EIAR notes that if plant were designed to this level, plant noise would be audible, and the dominant background source of noise at a number of noise sensitive locations in the vicinity.

11.11.7. As part of the noise survey work, the average nighttime background noise levels were identified at the four locations identified. A target noise criterion was determined by applying the BREAAAM (Building Research Establishment Environmental Assessment Method) for noise attenuation. A comparison of the results is contained in Table 10.11 of the EIAR and a nighttime criterion of 38-42 dB LAeq,15min was determined. Based on the review, the EIAR proposed that the design criterion of 40dB LAeq,15min be applied to the nearby properties to the west of the proposed development, which is lower than the Fingal County Council limit of 45dB (A) that was attached to the previous development on the site, (FW17A.005 – Condition 11 and FW/19/0087 – Condition 16(v)).

11.11.8. Based on the guidance in NG4, a noise criterion of 55dB LAeq,15min was considered appropriate for nearby commercial buildings. The EIAR also considered the impact of noise from the emergency generators. As the generators would only operate during a loss of power to the site or when being tested during daytime periods the noise criterion for these units is proposed at 55dB LAeq,15min for noise sensitive locations. Based on the survey results and a review of the relevant guidance the noise criteria proposed for the development is –

- Day to day operation (noise sensitive) – 40dB LAeq,15min
- Day to day operation (commercial) – 55dB LAeq,15min
- Emergency operation (noise sensitive) – 55dB LAeq,15min

The noise levels proposed are compatible with the requirements of the previous planning permissions for the site.

### ***Potential Effects***

#### **Construction Phase**

- **Noise** – The construction phase will involve additional noise from construction activity including generators, machinery, plant and vehicles. This noise would occur mostly during the day. Additional traffic to and from the site would also add to the noise effects.
- **Vibration** – Potential vibration effects at neighbouring sensitive locations during construction would be limited to excavation works and lorry movements on uneven surfaces. Due of the distances in the order of 150m from noise

sensitive locations, there is little likelihood of structural or cosmetic damage to neighbouring houses.

### Operational Phase

- **Noise** - Outward sources of noise from the building would be from building services noise and emergency site operations (generators). Additional traffic during the operational phase would be minimal. No significant effects regarding noise are anticipated.
- **Vibration** – there would be no impacts from vibration during the operational phase.

### **Mitigation**

11.11.9. Construction activities would be controlled in accordance with the recommendations of *BS 5228*, which include measures to limit noise and vibration. Measures included in the OCEMP and the CEMP to be prepared, to control noise would be implemented. Construction activities would be limited to daytime hours unless previously approved by the PA. A construction noise and activity plan is contained in Appendix 10.6 and will be implemented for day-to-day construction activities.

11.11.10. During the operation of the site, noise and vibration from external plant will be minimised by using low noise generating equipment and appropriate acoustic attenuators for stacks and exhausts.

### **Residual Effects**

11.11.11. Residual impacts during the construction phase will not be significant at noise sensitive locations subject to appropriate management of the site.

11.11.12. During the operational phase, properties closest to the site will experience some additional noise from fixed plant associated with the proposal. Baseline noise surveys measured the typical ambient noise levels to range from 56-60 dB  $L_{Aeq,T}$  during the day and 40-47 dB  $L_{Aeq,T}$  at night. The predicted increase would be in the order of 1 dB during daytime periods and 2 dB at night. Noise levels would still be within the recommended noise levels in the relevant guidance. In accordance with the EPA EIA Report Guidelines 2022, this increase will be 'slight to moderate, negative and long-term'.

11.11.13. No items of plant are expected to give rise to noise levels that would be out of the ordinary or that would exceed TII guidance which relates to the maximum permitted noise levels at the façade of dwellings during construction. Noise from additional construction traffic was also considered. Predicted noise levels from traffic (based on the traffic levels predicted in Chapter 13) at a point 5m away from the vehicle paths was calculated to be 64dB LAeq,1hr. This noise level is in accordance with the 65dB LAeq,1hr construction noise level for sensitive locations set out in TII guidance. The impact of the effect would be short-term negative and not significant.

11.11.14. Regarding vibration impacts, due the distance of the site from the sensitive locations and the nature of the building construction the predicted effects of vibration would be short-term neutral and imperceptible.

#### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.11.15. I am satisfied that the noise assessments and modelling have been carried out in accordance with the relevant guidance and that both the impacts from the construction and operational phases have been considered.

11.11.16. The EIAR assessed five scenarios (from A to E) to determine the predicted noise levels from the site. The scenarios considered the proposed buildings with the existing buildings and emergency generators. Scenarios A, B and C represented the existing buildings on site and the proposed development. Scenarios D and E included the proposed final building which will be subject to a future planning application. The PA sought clarification regarding the methodology for Scenario C, which considered the impact of the proposed buildings, permitted buildings and the generator testing. In response the applicant clarified that Scenario C considered the existing and proposed buildings and the full load testing of all 39 generators (to service the proposed buildings). An additional scenario was prepared and submitted by the applicant. Scenario F presented a scenario which the applicant stated was more realistic and which would involve the generators being tested in sequence rather than all at once. The operational plant for the entire site was also considered in conjunction with the generators. All predicted noise levels were comfortably within the 55 dB LAeq,T level which is recommended in EPA guidance,NG4. The results from all 6 scenarios modelled were found to be within the adopted criterion for daytime and limits and for emergency operation limits.

11.11.17. In response to a request from the PA an Inward Noise Impact Assessment was carried out to consider the impact of noise from the airport on the proposed development. The assessment found that the predicted noise levels arising from future aircraft were well within the recommended values for office spaces in *BS 8233*.

11.11.18. There is a potential for minor disturbance to neighbouring properties during the construction and operational phases. Additional noise levels from development would be within the noise limits determined for the site through guidance contained in EPA guidance note NG4, TII guidance of BS 5228. Whilst the closest houses to the site would experience some increase in the noise levels from the operation of the development, the increases would be minor with all predicted noise levels operating within acceptable noise limits. Mitigation measures to limit noise are set out in the OCEMP and in Appendix 10.6 of the EIAR. I am satisfied that with mitigation, noise levels from the proposed development will comply with the relevant criteria.

***Conclusion: Direct and Indirect Effects (Noise and Vibration)***

11.11.19. Having examined the EIAR Noise modelling, which has been carried out in line with relevant guidelines, as well as the further information submitted as an addendum, I am satisfied that the models and conclusions are robust. I am also satisfied that adverse noise effects during all phases of the development will not be significant due to the mitigation measures proposed, including the procurement of appropriate plants the use of attenuators and the separation distances to the nearest residential properties.

**11.12. Material Assets**

***Issues Raised***

11.12.1. The grounds of appeal raised concerns regarding the demand on electricity from the development and the impact this would have on the national grid. This is addressed in the Air and Climate section above which considers the indirect impact of the demand in electricity on the generation of GHG.

## **Context**

11.12.2. The Material Assets chapter of the EIAR assesses ownership and access, built services and infrastructure under the headings, Land Use Property and Access, Power and Electricity Supply, Surface Water Infrastructure, Foul Drainage Infrastructure and Water Supply.

## **Baseline**

11.12.3. Power Supply - The proposed development is part of a wider development site which is in close proximity to the 110kV and 220kV Corduff AIS substation. Power supply for the existing and proposed development will be from the existing 220kV GIS substation on the site (Building D). A connection agreement to supply the proposed development is in place with EirGrid.

11.12.4. A fibre optic cable distribution network which is currently in place for the permitted developments on the site. This will be extended to include the proposed buildings.

11.12.5. There is an existing 900-millimetre diameter connection to the IDA surface water drainage system under the R121 in the fact east corner of the wider site. The IDA system was sized to accommodate future development of the area and has sufficient capacity. A surface water drainage network with hydrocarbon interceptors, attenuation basins and a flow control device are already in place to service permitted development, including buildings A, B & C.

11.12.6. An existing IDA foul surface network is available along the R121 which transports waste to the main treatment works at rings end wastewater treatment plant. There is an existing 375-millimetre diameter connection to this foul network in the southeastern corner of the overall landholding. A confirmation of feasibility was received from Uisce Éireann to provide wastewater discharges for the permitted development, the proposed development, and the future development of one data centre.

11.12.7. There is an existing 500-millimetre diameter pipe along the southeast corner of the overall landholding which is fed from the mains water supply existing water main infrastructure constructed under previous planning applications is in place within the site.

## **Potential Effects**

11.12.8. No significant effects are identified in the Material Assets chapter. I note that third parties raised concerns regarding the increase of energy demand from the development and the impact that would have on the national grid. This is addressed in full below. The potential effects are listed in the table below.

<b>Summary of Potential Effects (Material Assets)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"><li>• No change. Services would still be available to the development operating on the site. No additional demand would be created.</li></ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"><li>• Potential effects would be limited to accidental damage to the infrastructure already in place within the site.</li></ul>
<b>Operational Impacts</b>
<ul style="list-style-type: none"><li>• The development would lead to an increased demand in electricity to power the data centres.</li><li>• Additional diesel would be required to power the generators.</li><li>• Additional demand on the public water supply and the wastewater infrastructure.</li><li>• No impact predicted on telecommunications.</li></ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"><li>• Not examined.</li></ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"><li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li></ul>

## **Mitigation**

11.12.9. Construction Phase – Excavations in the vicinity existing services will be carried out by the contractor in consultation with all service providers. Good practice construction methods will be employed on site to prevent interruptions to the surface water network and to prevent surface water runoff from construction works. Should

an interruption of service be required for connections to existing infrastructure, this will be arranged in advance.

11.12.10. Operational Phase – The development will require additional electricity to power the data centres. A connection agreement to supply the development is in place with EirGrid. Measures to reduce the energy demand of the buildings have been incorporated into the design and include photovoltaic panels on Buildings G and F. The panels will feedback into the electricity supply for each building. SuDS measures have been incorporated into the design to restrict surface water runoff. The surface water drainage system will connect to the existing attenuation on site and the proposed wetland area to the west of Building E. All surface water to be discharged will pass through hydrocarbon interceptors. No mitigation measures are required for water supply or wastewater services.

#### ***Residual Effects***

11.12.11. There will be no significant impacts on material assets for the wider economy. Once operational, the development has connections agreements to supply the development with EirGrid and Uisce Éireann.

#### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.12.12. The subject site and existing development are already serviced by public wastewater and mains water infrastructure. A surface water connection to the drainage system to the wider IDA lands is also in place. The site is also serviced by electricity and telecommunications. Therefore, no new connections are required, and capacity of existing services has been confirmed by EirGrid and Uisce Éireann. The surface water management system currently in place on the site includes an attenuation area which has been sized to accommodate the development of the entire site in accordance with the original masterplan. The proposed development will include additional SuDS measures to attenuate additional surface water from the proposal.

11.12.13. I note that third parties raised concerns regarding the impact of the additional energy demand from the development on the national grid and whether this would impact on supply. Regarding power supply, the EIAR states that the proposed development would have an overall maximum operational demand for all three buildings of 75.4MW. Power would be provided from the existing 220kV GIS

substation on site and a connection agreement to supply the development is in place with EirGrid. Emergency generators would be required to ensure continuity of service should there be a power cut. These generators would be fuelled by renewable diesel.

11.12.14. It is not within the remit of the Board to adjudicate whether there is capacity in the national grid to service the development. This responsibility lies with the service provider. Third parties questioned the validity of the connection agreement with EirGrid as the application does not include a response or confirmation from EirGrid. Whilst the application does not include a direct response from EirGrid in relation to a service agreement, I appreciate the sensitivities and confidentiality requirements around corporate service agreements, and I would not expect to see details of this kind in an application. Based on the planning history for the site which required engagement with EirGrid in 2017 to deliver the first phase of development, and the information contained in the application, I am satisfied that the applicant has a service agreement in place with EirGrid to accommodate the proposed development. Indirect impacts from the increased demand for electricity would result from the burning of fossil fuels to supply the additional power requirements which would lead to the release of additional GHG. This issue is addressed in full in Chapter 9 – Air Quality and Climate.

11.12.15. Third parties also raised concerns regarding the volume of water required for the development and the impact this may have on the public supply. The applicant has confirmed that they engaged with Uisce Éireann regarding the additional demand and a Confirmation of Feasibility is included in the Engineering Report. I note to the Board that this matter is addressed in the Hydrology section above. Based on the information contained in the application and in Chapter 7 of the EIAR, I am satisfied that the applicant had demonstrated that the development can be accommodated.

11.12.16. **Conclusion: Direct and Indirect Effects**

I am satisfied that there would be no significant adverse impacts in relation to Material Assets subject to compliance with recommended conditions, relevant legislation, implementation of the EIA or and final CMP mitigation measures.

### 11.13. Archaeological, Architectural and Cultural Heritage

#### **Issues**

11.13.1. No issues raised regarding archaeological, architectural and cultural heritage in the submissions received.

#### **Context and Baseline**

11.13.2. The EIAR defined a study area which extended to a 1.5km radius around the subject site. There are no recorded archaeological sites or monuments within the proposed development lands, as listed in the Record of Monuments and Places for County Dublin. There are 15 recorded archaeological sites within the study area. None of these sites will be impacted either directly or indirectly by the proposed works. The lands in which the development site is located have been subject to an extensive programme of archaeological geophysics and archaeological testing. This work did not identify any archaeologically significant features and concluded that no further mitigation would be required on site.

11.13.3. There are no architectural heritage structures within the site. Five structures within the wider study area are included in the National Inventory of Architectural Heritage (NIAH). There are also five sites within the wider area that are listed on the Record of Protected Structures in the Fingal Development Plan. None of the structures are visible from the site and none will be impacted by the development.

#### **Potential Effects**

11.13.4. No significant effects were identified because of the development. The potential impacts are listed in the following table.

<b>Summary of Potential Effects (Archaeological, Architectural and Cultural Heritage)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"><li>• No impacts.</li></ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"><li>• No impacts.</li></ul>
<b>Operational Impacts</b>
<ul style="list-style-type: none"><li>• No impacts.</li></ul>

<b>Decommissioning</b>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"> <li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### ***Mitigation***

No mitigation measures are proposed for the construction or operational phase.

### ***Residual Effects***

No residual impacts anticipated.

### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

There are no Recorded Monuments, Protected Structures or structures listed on the NIAH located within the site. The structures of architectural or heritage value within the study are at a sufficient remove from the site to avoid any impacts from the development. The subject site is part of a wider development site where archaeological investigations had previously been carried out. No features of significant archaeological value were found during the investigations.

### ***Conclusion: Direct and Indirect Effects***

I am satisfied that there would be no significant adverse impacts in relation to Archaeological, Architectural and Cultural Heritage subject to compliance with relevant legislation, implementation of the EIAR and final CEMP mitigation measures.

## **11.14. Waste Management**

### ***Issues Raised***

- 11.14.1. No issues were raised in the submissions received regarding landscape and visual impact.

## **Context and Baseline**

11.14.2. The subject site forms part of a wider development site which was previously in agricultural use. No demolition works are required to accommodate the development. Site excavation works would form part of the development.

### **Potential Effects**

<b>Summary of Potential Effects (Waste Management)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"><li>• No impacts.</li></ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"><li>• The generation of non-hazardous and hazardous waste during excavation and construction.</li><li>• Potential for inappropriate disposal of waste resulting in negative environmental impacts.</li></ul>
<b>Operational Impacts</b>
<ul style="list-style-type: none"><li>• Waste will be generated from the activities on the site.</li></ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"><li>• Not examined.</li></ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"><li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li></ul>

### **Mitigation**

11.14.3. Mitigation measures during the construction phase include the implementation of the site-specific Resource Waste Management Plan (RWMP) which was submitted with the application. The contractor will be instructed to reuse excavation materials on-site where possible with any surplus material sent off-site for re-use through an authorised facility. Additional measures are set out in full in Section 15.6.1 of the EIAR and include the selection of materials to 'design out' waste, the segregation and appropriate storage of waste materials, the use of suitably authorised contractors and facilities for waste removal and disposal and appropriate

on-site training. The predicted impact would be short-term, neutral and imperceptible.

- 11.14.4. During the operational phase of development mitigation measures would include the on-site segregation of materials, appropriate storage of materials in colour-coded bins, waste to be reused, recycled or recovered where possible, waste leaving the site would be transported by suitably permitted contractors and taken to appropriately licenced facilities for disposal and records for waste disposal would be maintained. The predicted impact on the environment would be neutral and imperceptible.

#### ***Residual Effects***

Further to the implementation of the RWMP and the mitigation measures outlined, which would result in the disposal of any residual waste in properly authorised facilities, the residual effect would be neutral and imperceptible.

#### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

- 11.14.5. I am satisfied that there would be no significant adverse impacts in relation to waste management subject to compliance with relevant legislation, implementation of the RWMP and the mitigation measures outlined.

### **11.15. Landscape and Visual**

#### ***Issues Raised***

- 11.15.1. No issues were raised in the submissions received regarding landscape and visual impact.

#### ***Context and Baseline***

- 11.15.2. As previously noted, the subject site forms part of a wider development site which has been subject to previous development. Planning history for the site is set out in full in Section 5.0 of this report and includes three data centre buildings, (Buildings A, B and C). The EIAR notes that, at the time of writing Building A was completed and Buildings B and C were under construction. These buildings have since been completed and are now operational. A Gas Insulated Switchgear (GIS) building (Building D) is also in place in the southern section of the site. Berms have been constructed along the western site boundary and have been planted as part of

the overall landscaping plan. An attenuation pond is in the northern section of the site.

11.15.3. The site is located at the northwestern extent of a large industrial estate. Lands to the immediate south and east are occupied by large scale contemporary high-tech industrial facilities. The R121 bounds the western edge and southern edges of the site with Cruiserath Drive to the north. To the west of the site and on the opposite side of the road is the residential development of Tyrrelstown. To the north and west is the Tyrrelstown Town Centre and the Carlton Hotel, which has a large surface car park and landscaped area.

11.15.4. Views into the site are restricted by existing berms with mixed woodland landscaping along the R121. Building A forms a continuous building line set back from the Cruiserath Road boundary. It is partially visible from the eastern and western approaches and intermittently visible through the southern perimeter landscaping. Views into the site from the north and in the vicinity of the Carlton Hotel car park are restricted by landscaping.

11.15.5. Given the overall context of the site in an urban area and bounding an industrial estate, it is not considered to be significant or sensitive to from a landscape and visual aspect.

**Potential Effects**

11.15.6. Likely significant effects of the development as identified in the EIAR are summarised in the table below.

<b>Summary of Potential Effects (Landscape and Visual)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"> <li>The data centre buildings and infrastructure on the site will continue to operate and the subject site within the wider landholding will be left empty.</li> </ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"> <li>Construction activities on the site would result in visual impacts from machinery, tower cranes, temporary structures and from earthworks.</li> <li>Additional outdoor lighting will be required throughout the site and will increase the amount of artificial light.</li> </ul>

<b>Operational Impacts</b>
<ul style="list-style-type: none"> <li>• There would be an increase in development and buildings within the site but this would not result in a significant impact on the landscape character.</li> <li>• Views towards the development from the southeast and southwest would be restricted by Building A and by existing landscaping and berms along the western and southern site boundaries. The upper parts of Buildings F and G will be visible from the R121 when looking east but no views will be limited or restricted by the buildings.</li> <li>• There is an extant permission for a two-storey office building at the corner of Cruiserath Drive and the R121. Should this permission be implemented, views of the development would be obstructed from the north of the site and from Cruiserath Drive.</li> <li>• Views from the residential areas directly to the west would be partially filtered through the existing mature tree boundary.</li> </ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"> <li>• Not examined.</li> </ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"> <li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li> </ul>

### ***Mitigation***

11.15.7. Mitigation measures are outlined in Section 11.6 of the EIAR and include a mix of design measures and landscaping. Mitigation measures during the construction phase would involve the appropriate stripping and storage of soil for the reinstatement of the lands and the proper reinstatement of temporary construction compounds.

11.15.8. Mitigation measures during the operational phase include design measures which involve orienting the buildings within the site to minimise visual impact, selecting appropriate external finishes, implementing additional landscaping and managing artificial lighting within the site.

### ***Residual Effects***

11.15.9. No significant effects are predicted. Section 11.8 of the EIAR addresses Residual Effects and states the landscape and visual effects arising from the development will range from 'moderate' to 'slight' and 'neutral'.

### ***Analysis, Evaluation and Assessment: Direct and Indirect Effects***

11.15.10. I have examined, analysed and evaluated Chapter 11 of the EIAR and all of the associated documentation and submissions on file in relation to Landscape and Visual impacts. Construction phase impacts would be limited to intermittent views of construction machinery and structures within the site. Due to existing berms, landscaping and trees, these views would be temporary to short-term and would vary from moderate to imperceptible and from neutral to negative. During the operational phase the upper level of the development would be visible above the perimeter landscaping from the west and north. Views of the development from the R121 to the south would be blocked by existing development along the southern site boundary. I am satisfied that the proposed development is in keeping with the existing character of the site and would be of similar scale and design as the buildings already in place. The subject site is on land which is zoned for High Technology development and is located within an area characterised by large scale commercial and industrial buildings. The increase in built form on the site would not result in any significant adverse impacts on the residential development to the west as views would be restricted and intermittent.

### ***Conclusion: Direct and Indirect Effects***

11.15.11. I am satisfied that the proposed development would not have an adverse impact on the landscape and visual amenity of the area subject to the implementation of mitigation measures such as additional landscaping and planting as proposed.

## **11.16. Traffic and Transportation**

### ***Issues***

11.16.1. No issues raised regarding traffic and transportation in the grounds of appeal.

## **Context**

The surrounding road network includes the R121, the N2, the N3 and the M50. The R121 regional road, (Church Road), runs along the western and southern site boundary. Pedestrian and vehicular access to the site is from a roundabout on the R121. The N2, N3 and the M50 are part of the wider road network. The N2 is approximately 4km from the subject site with access to the R121 from Exit 2 of the N2. The N3 is approximately 3km from the subject site and is accessed from the R121 via exit 3 of the R121. The closest access to the M50 from the site is via the N3 to Junction 6, which is approximately 6km from the site.

## **Baseline**

- 11.16.2. The site is serviced by a number of bus services which stop in the Tyrrellstown development to the west of the site. There are pedestrian and cyclist facilities along the R121 to the west and south of the site. Baseline traffic figures were calculated from traffic surveys carried out at 7 junctions in the vicinity of the site. The baseline figures also made allowance for extant permissions or developments underway. These included the data centre buildings on the site which were under construction at that time, an office development of 23,180m<sup>2</sup> in the Blanchardstown Corporate Park (FW20A/0153) and an office development of 3,500m<sup>2</sup> to the north of the site, (FW18A/0121).
- 11.16.3. The TRICS database does not contain any traffic surveys for established data centres. Therefore, the predicted trip generation for the development was calculated by using the projected daytime and nighttime staffing numbers. The peak hour vehicular trip generation is set out in Table 13.3. Assumptions that fed into the model are set out in Sections 13.4.2 to 13.4.5 and are at the higher level to provide a robust assessment. Traffic growth figures were taken from TII guidance and are set out in Table 13.4 of the EIAR. The proposed development would include 105 car parking spaces and 56 bicycle parking spaces. Showers, lockers and changing facilities would be provided in the development.

### **Potential Effects**

11.16.4. Likely significant effects of the development as identified in the EIAR are summarised in the table below.

<b>Summary of Potential Effects (Traffic and Transport)</b>
<b>Do Nothing</b>
<ul style="list-style-type: none"><li>• The data centre buildings on the site would continue to operate.</li></ul>
<b>Construction Impacts</b>
<ul style="list-style-type: none"><li>• Additional traffic would be generated during the construction phase. The traffic would include cars, light vehicles, Large Goods Vehicles (LGVs) and Heavy Goods Vehicles (HGVs).</li><li>• Table 13.10 details the projected maximum daily numbers of cars, LGVs and HGVs that will access the development at the peak of construction activity (taken as 2026).</li></ul>
<b>Operational Impacts</b>
<ul style="list-style-type: none"><li>• Additional traffic to and from the site would be generated by visitors and workers to and from the site.</li></ul>
<b>Decommissioning</b>
<ul style="list-style-type: none"><li>• Not examined.</li></ul>
<b>Cumulative Impacts</b>
<ul style="list-style-type: none"><li>• Not examined in this chapter. Chapter 16 deals with Cumulative Effects.</li></ul>

### **Mitigation**

11.16.5. Mitigation measures for the construction phase of the development include the provision of facilities and procedures to keep surrounding roads clean, monitoring and control of construction traffic, and the provision of car parking for construction workers within the site.

11.16.6. No mitigation measures are proposed for the operational phase.

### **Residual Effects**

11.16.7. The operational phase of the development would lead to increased levels of traffic on the R121.

### ***Analysis, Evaluation and Assessment***

11.16.8. Traffic scenarios were modelled using the Peak Construction activity year (2026), Opening year (2028), Future year (2033) and Horizon year (2043). During the construction phase the biggest impact on traffic is projected to occur in 2026. An analysis was carried out using PICADY software which predicts capacities, queue lengths and delays at priority-controlled junctions. The construction access would be from a temporary entrance on the R121 which is a 3-arm, left-in/left-out priority-controlled junction. The results of the analysis are demonstrated by using the ratio of flow to capacity, (RFC) value. The RFC value indicates the extent to which traffic flows on an intersection arm approach capacity. An intersection arm operating at capacity would have an RFC value of 1.0. The results show that the RFC at the junction of the site construction entrance and Cruiserath Road is 3% during the AM Peak hour and 11% during the PM Peak hour in 2026. The results are justified on the basis of the temporary nature of the construction phase which will result in a short-term, negative impact.

11.16.9. During the operational phase additional traffic volumes were assessed at the closest, major junctions to the site, which are the site access from the R121 roundabout and the R121 Church Road / R121 Cruiserath Road /L3021 Church Road/ L3022 Damastown Avenue/ Powerstown Road, 5-arm junction to the south of the site. Junction analysis was carried out using the Arcady software package which is used to model capacity, queues and delays at roundabout junctions.

11.16.10. Results for the access roundabout for the Opening year – 2028, Future year – 2033 and Horizon year (2043) indicate that the roundabout on the R121 will operate within capacity and at a satisfactory level. Results for the 5-arm roundabout to the south of the access junction, indicate that the junction will be impacted negatively by background traffic growth regardless of the proposed development. During the Opening year, the performance of the junction would become lower but would still operate within capacity. In the 2033 – Future year, the recorded RFC values are

above acceptable levels with or without the proposed development. Predicted RFC values would be 0.93 in the AM Peak and 1.03 in the PM Peak. The proposed development does not significantly alter the predicted capacity of the junction. During the Horizon year – 2043, the junction is expected to have an RFC of 0.98 without the proposed development in the AM Peak and 0.99 with the proposed development. During the PM Peak the predicted RFC would be 1.09 without the development and 1.09 with the development.

### **Conclusion**

11.16.11. The nature of the proposed development is not traffic intensive. I am satisfied that it will not result in the significant addition to traffic levels in the area, which has been demonstrated through traffic modelling using standard industry methodology. Pedestrian and cycle facilities around the site are established and bicycle facilities will be provided for staff members and visitors within the site.

11.16.12. I am satisfied that the proposed development would not have an adverse impact on the traffic levels in the area, or on the existing transport network subject to the implementation of mitigation measures, which relate to maintaining a clean road environment during the construction phase.

### **11.17. Interactions**

11.17.1. Chapter 17 of the EIAR addresses the potential interactions and interrelationships between the environmental factors assessed in the other chapters of the EIAR. Most of the individual chapters have already included and described assessments of potential interactions between a number of environmental factors. Interactions with each of the following elements have been examined under separate sections of the chapter, Population and Human Health, Land Soils and Hydrogeology, Hydrology, Biodiversity, Air Quality and Climate Noise and Vibration Landscape and Visual Impacts and Archaeological, Architectural and Cultural Heritage.

11.17.2. The grounds of appeal raised concerns regarding the impact of the development in terms of its GHG emissions and the overall impact that has on climate and human health. Whilst this could be considered to be an interaction between environmental factors, it was not directly addressed in the chapter.

However, it is addressed in full in Section 11.9 of this report which deals with Air Quality and Climate.

- 11.17.3. I have considered the interactions and interrelationships between environmental effects and am satisfied that significant impacts in relation to interactions can be avoided, managed and mitigated by the measures contained within the EIAR and any recommended planning conditions.

### 11.18. Cumulative Effects

- 11.18.1. Chapter 16 of the EIAR addressed the cumulative effects on the environment of the proposed development, permitted development on the site with developments in the locality, (including planned and permitted developments).

#### ***Potential Effects***

- 11.18.2. Population and Human Health – the cumulative impact of noise and vibration, air quality and traffic were assessed and considered in the modelling carried out for each of the separate chapters. The landscape and visual impact also considered the cumulative impact of the proposed development with existing and permitted development. The EIAR concluded that there would be no significant impacts on Population and Human Health in terms of noise and vibration, air quality and visual impact. During the construction phase of the development there will be a short-term slight, positive impact from the economic benefit of additional workers in the area. Additional workers during the operational phase would have an imperceptible, positive impact.
- 11.18.3. Land, Soils, Geology, Hydrogeology and Hydrology – the cumulative impacts would be neutral and imperceptible during the construction phase and would be long-term, imperceptible with a neutral impact during operation.
- 11.18.4. Biodiversity – there would be no significant cumulative impacts from the development.
- 11.18.5. Air Quality and Climate – The cumulative impacts on air quality during the construction phase were considered for the proposed development and any other permitted or overlapping construction projects in the area. The implementation of

the CEMP would prevent significant impacts of any such scenario. During the operational phase, air quality modelling was carried out to assess the level of NO<sub>2</sub> emissions from the proposed development (Buildings E, F and G) permitted development, (Buildings A, B and C) and the IE licenced facilities of BMS and Alexion. A further cumulative scenario was modelled to include future development on the site, (Building G). As noted in Chapter 9 of the EIAR all scenarios found that the emissions would be within the relevant limit values. Any cumulative impact on air quality would be long-term, slight and negative.

11.18.6. Regarding Climate, IEMA guidance does not recommend selecting specific projects for cumulative impact as all projects have the potential to impact on climate. On that basis the cumulative impact of the indirect effects from GHG emissions to fuel the permitted, proposed and future development on the site were assessed against the national and EU targets for GHG reductions. These assessments are fully detailed in Chapter 9 of the EIAR, which is assessed in Section 11.9 of this report. The impact of the development on climate was found to be indirect, long-term, negative and slight.

11.18.7. The grounds of appeal raised concerns that the cumulative impact of the development had not properly been considered in terms of air quality, climate and GHG emissions. This is dealt with in full in Section 11.9 of this report.

11.18.8. I am satisfied that the cumulative impacts of the development have been properly assessed for each of the relevant environmental factors and that the potential impact of the development with existing and proposed development on the site and in within the zone of influence has been considered.

### 11.19. Reasoned Conclusion

11.19.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR, addendum EIAR and supplementary information provided by the applicant, to third party submissions and prescribed bodies in the course of the application, I consider that the main significant direct and indirect effects of the proposed development on the environment, and will be mitigated as follows;

- Climate

11.19.2. The proposed development has potential to impact negatively on **Climate** as a result of the GHG emissions from electricity generation to power the data centre. Mitigation measures for the construction and operational phases of the development have been included in the assessment and are assessed fully in the relevant section above. Subject to the implementation of these measures the residual impact on climate from the construction and operational phases would be minor adverse and non-significant.

In conclusion, having regard to the identified significant impacts, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation measures outlined in the EIAR, any recommended planning conditions and adherence to the terms and conditions associated with any EPA Industrial Emissions Licence, should it be granted.

## 12.0 **AA Screening**

12.1. An Appropriate Assessment Screening Report was appended to Chapter 8 – Biodiversity, of the EIAR. The Report concluded that, *‘there are no predicted effects on any European sites’* and that *‘It can be excluded, on the basis of objective information, that the Proposed Development, individually or in combination with other plans and projects, will have a significant effect on a European site’*.

### **Overall Conclusion- Screening Determination**

12.2. Having reviewed the documents, submissions, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone, or in combination with other plans and projects on European sites. I have carried out a full Screening Determination for the development and it is attached to this report this report in Appendix 1.

12.3. The results of my assessment conclude that that the proposed development would not have a likely significant effect on any European Site either alone or in combination with other plans or projects. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is not required.

12.4. This conclusion is based on,

- Objective information presented in the Screening Report
- The limited zone of influence of potential impacts, restricted to the immediate vicinity of the proposed development,
- Distance from European Sites, and
- The absence of meaningful pathway to any European site,

12.5. No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

### 13.0 Recommendation

I recommend that planning permission is granted for the development for the following reasons.

### 14.0 Reasons and Considerations

Having regard to the,

- a. Climate Action Plan 2024,
- b. National Planning Framework (and Draft Revised National Planning Framework (2024)),
- c. Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy,
- d. HT (High Technology) land use zoning objective which applies to the site,
- e. the location of the development within a wider development with an established data centre use,
- f. the existing grid connection on the site and the existing infrastructure within the site to supply the proposed development,
- g. a pre-existing agreement with the transmission service operator to provide power to the development,
- h. the initial agreement with the transmission service provider which considered the overall power demand for the entire development which was then factored into the national demands under the Sectoral Ceiling Emissions,

- i. the mitigation measures proposed for the operational phase of the development including the limited use of on-site generators,
- j. the evidence provided to demonstrate compliance with the Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy,
- k. the infrastructure within the site to deliver a District Heating System in accordance with Objective DMS0259 of the Fingal Development Plan 2023-2029 and with the Fingal Climate Action Plan 2024-2029,
- l. and its compliance with the requirements of Objective DMS092 of the Fingal Development Plan,

it is considered that subject to compliance with the conditions below and the requirement for the developer to enter into a Corporate Purchase Power Agreement with a renewable energy provider prior to the operation to the data centre, the proposed development would be acceptable at this location and would have no unacceptable impacts on the environment or property in the vicinity. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area the development would be in accordance with the objectives and policies of the Fingal Development Plan 2023-2029 and would be consistent with the Climate Action and Low Carbon Development (Amendment) Act 2021.

## 15.0 Conditions

I have reviewed the conditions attached to the decision of the Planning Authority. Should the Board decide to grant permission for the development, I have compiled a reference table for their information which contains my recommendation as to whether any specific or tailored conditions should be attached.

PA Condition	Relates to	Type	Recommendation
1.	Plans & particulars	Standard	Retain
2.	Use	Standard	Not required
3.	Duration of permission	Specific	Retain
4.	Proposed finishes	Standard	Retain
5.	Inward noise assessment	Specific	Retain

6.	Surface Water	Standard	Retain
7.	Uisce Éireann	Standard	Retain
8.	Traffic Mgt Plan & Mobility Mgt Plan	Standard	Retain
9.	Tree protection bond	Standard	Retain
10.	Landscaping Plan	Standard	Retain
11.	Details re. numbers and type of generators	Specific	Retain
12.	Testing & fuel type for generators	Specific	Retain
13.	CPPA requirement	Specific	Retain
14.	EIAR mitigation measures	Standard	Retain
15.	CEMP	Standard	Retain
16.	Resource Waste Management Plan	Standard	Retain
17.	The use of cranes	Specific	Retain
18.	Noise during construction & operation	Standard & specific	Retain – operational noise is in the IE licence
19.	Plant at roof level	Standard	Not required. Solar PV proposed at roof level.
20.	Hours of operation	Standard	Retain
21.	Service cables	Standard	Retain
22.	District Heating	Specific	Retain
23.	Maintain public road	Standard	Retain
24.	Development Contribution	Standard	Retain

### Conditions

1.	<p>The development shall be carried out in accordance with the plans and particulars submitted with the planning application except as may be otherwise required by the following conditions.</p> <p>Reason: To clarify the plans and particulars for which permission is granted.</p>
2.	<p>The duration of the permission shall be for a period of seven years from the date of the grant of permission.</p> <p>Reason: In the interests of clarity.</p>
3.	<p>The mitigation measures contained in the submitted Environmental Impact Assessment Report (EIAR), and the addendum EIAR, shall be implemented.</p> <p>Reason: To protect the environment.</p>

4.	<p>The recommendations set out in the inward noise impact assessment shall be carried out in full.</p> <p>Reason: In the interests of public health.</p>
5.	<p>Prior to the commencement of development, the applicant shall submit for the written agreement of the Planning Authority details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed by the development on site is matched by new renewable energy generation in line with the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy. The Agreement shall comply with the following:</p> <p>a) The new renewable energy projects shall not be supported by government, consumer or other public subsidies;</p> <p>b) The new renewable energy projects shall be located In Ireland and full details of these including consent details shall be provided;</p> <p>c) The new renewable energy projects shall be provided by the applicant's group, that is Amazon.com, Inc. or any future owner.</p> <p>d) The new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission.</p> <p>e) The amount of electricity generated by the new renewable energy projects shall be equal to or greater than the electricity requirements of the data centres in operation at any given time.</p> <p>f) The new renewable energy projects shall be fully operational prior to the commencement of operation of the data centres having regard to the phased nature of the proposed development.</p> <p>REASON: In the interests of sustainable development.</p>
6.	<p>To minimise the impact on air quality, health and climate, prior to the determination of the number and type of emergency generators on site, prior to commencement of development, the developer shall submit details for the written agreement of the Planning Authority which demonstrate that the lowest possible numbers of generators with the lowest possible nitrogen oxide emissions have been selected for the site while achieving the required power for the site.</p> <p>REASON: In the interests of sustainable development.</p>
7.	<p>a) Testing of generators across the full site shall take place in sequence. At no stage shall testing of generators occur concurrently.</p>

	<p>b) Subject to availability, the fuel for use by the generators shall be renewable diesel.</p> <p>REASON: In the interests of sustainable development.</p>
8.	<p>A strategy in relation to the use of cranes during construction shall be agreed in writing with the Irish Aviation Authority (IAA) and the Dublin Airport Authority (DAA) prior to the commencement of any development on site. REASON: In the interest of aviation safety and public safety.</p>
9.	<p>The attenuation and disposal of surface water shall comply with the requirements of the planning authority for such works and services. Prior to the commencement of development, the developer shall submit details for the disposal of surface water from the site for the written agreement of the planning authority.</p> <p>Reason: To prevent flooding and in the interests of sustainable drainage.</p>
10.	<p>Prior to commencement of development revised plans, drawings and specifications shall be submitted to, and agreed in writing with, the Planning Authority that demonstrate that the permitted development has the potential and infrastructure provisions and design to recycle heat generated into a district heating scheme in the event of such a scheme being implemented for the wider area.</p> <p>REASON: In the interest of sustainability.</p>
11.	<p>(a) All foul sewage and soiled water shall be discharged to the public foul sewer (b) Only clean, uncontaminated storm water shall be discharged to the surface water drainage system or soakpits.</p> <p>Reason: In the interest of public health.</p>
12.	<p>Prior to the commencement of development, the developer shall enter into a Connection Agreement (s) with Uisce Éireann (Irish Water) to provide for a service connection(s) to the public water supply and/or wastewater collection network.</p> <p>Reason: In the interest of public health and to ensure adequate water/wastewater facilities.</p>
13.	<p>Details of the materials, colours and textures of all the external finishes to the proposed development and any signs shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.</p> <p>Reason: In the interest of visual amenity.</p>
14.	<p>All service cables associated with the proposed development (such as electrical, telecommunications and communal television) shall be located underground.</p>

	<p>Ducting shall be provided by the developer to facilitate the provision of broadband infrastructure within the proposed development.</p> <p>Reason: In the interests of visual amenity.</p>
15.	<p>Prior to the commencement of development, the developer or any agent acting on its behalf, shall prepare a Resource Waste Management Plan (RWMP) as set out in the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (2021) including demonstration of proposals to adhere to best practice and protocols. The RWMP shall include specific proposals as to how the RWMP will be measured and monitored for effectiveness; these details shall be placed on the file and retained as part of the public record. The RWMP must be submitted to the planning authority for written agreement prior to the commencement of development. All records (including for waste and all resources) pursuant to the agreed RWMP shall be made available for inspection at the site office at all times.</p> <p>Reason: In the interest of proper planning and sustainable development.</p>
16.	<p>Site development and building works shall be carried out only between the hours of 0800 to 1900 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.</p> <p>Reason: In order to safeguard the residential amenities of property in the vicinity.</p>
17.	<p>The site development and construction works shall be carried out such a manner as to ensure that the adjoining streets are kept clear of debris, soil and other material and cleaning works shall be carried on the adjoining public roads by the developer and at the developer's expense on a daily basis.</p> <p>Reason: To protect the residential amenities of property in the vicinity.</p>
18.	<p>A comprehensive boundary treatment and landscaping scheme shall be submitted to and agreed in writing with the planning authority, prior to commencement of development. This scheme shall include the following:-</p> <p>(a) details of all proposed hard surface and/or permeable surface finishes, including samples of proposed paving slabs/materials for footpaths, kerbing and road surfaces within the development;</p>

	<p>(b) proposed locations of trees and other landscape planting in the development, including details of proposed species and</p> <p>(c) details of proposed street furniture, including bollards, lighting fixtures and seating</p> <p>(d) details of proposed boundary treatments at the perimeter of the site, including heights, materials and finishes.</p> <p>The boundary treatment and landscaping shall be carried out in accordance with the agreed scheme.</p> <p>Reason: In the interest of visual amenity.</p>
19.	<p>a) To ensure the protection of trees to be retained within the site, the developer shall implement all the recommendations pertaining to tree retention and management as outlined within the submitted tree report and 'Tree Survey and Protection Plan', Drawing no. 220721-P10 by Charles McCorkell.</p> <p>b) A tree bond of €50,000 shall be lodged with the Planning Authority prior to the commencement of development in order to ensure that the trees are protected and maintained in good condition throughout the course of development. This bond will be held by Fingal County Council for a period of one year post construction which may be extended in the event of possible construction related defects. Prior to the release of this bond, certification from the appointed arboricultural consultant shall be provided to the Planning Authority in relation to tree protection and woodland planting in accordance with the agreed plans.</p> <p>REASON: To ensure the provision of amenity afforded by appropriate landscape design.</p>
20.	<p>Prior to the occupation of the development, a Mobility Management Plan (MMP) shall be submitted to and agreed in writing with the planning authority. This shall provide for incentives to encourage the use of public transport, cycling and walking by residents/occupants/staff employed in the development. The mobility strategy shall be prepared and implemented by the operator of the facility.</p> <p>Reason: In the interest of encouraging the use of sustainable modes of transport.</p>
21.	<p>A detailed construction traffic management plan shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. The plan shall include details of arrangements for routes for construction traffic, parking</p>

	<p>during the construction phase, the location of the compound for storage of plant and machinery and the location for storage of deliveries to the site.</p> <p>Reason: In the interest of sustainable transport and safety.</p>
22.	<p>The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.</p> <p>Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.</p>

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

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Elaine Sullivan  
Senior Planning Inspector

24<sup>th</sup> of March 2025

## Appendix 1

### AA Screening Determination

#### Screening for Appropriate Assessment Screening Determination

##### Step 1: Description of the project

A full description of the development is set out in Section 3.1, Page 5 of the Screening Report submitted by the applicant. The development involves the construction and operation of a data centre and associated facilities comprising three data centre buildings, 39 no. diesel-fuelled, back-up generators with diesel storage tank, filling areas, ancillary structures, (including MV buildings, water storage and bin stores), internal road network and car parking for 105 no. cars, 12 no. motorcycles and 56 no. bicycles. Additional works include landscaping, storm water and drainage works and all associated infrastructure. The development would be served by the public mains and wastewater system.

The subject site is in an urban area with residential development to the west and extensive commercial and industrial development to the east and south. It forms part of a wider development site that has been partially developed with three operational data centres in place with all supporting infrastructure on site. The site is bounded by the R121 to the west and south.

I have considered the proposed development in light of the requirements of S177U of the Planning and Development Act 2000 as amended. The subject site is not located within, or directly adjacent to, any Natura 2000 sites. The closest European sites to the development are the,

- Rye Water Valley / Carton SAC (Site Code 001398) at a distance of c. 8.8km to the south-west of the site,
- South Dublin Bay and River Tolka Estuary SPA (Site Code 004024) approximately 12km to the south-east of the site.
- Malahide Estuary SPA (Site Code 004025) approximately 12km to the east of the site,

- Malahide Estuary SAC (Site Code 000205) approximately 12km to the east of the site,
- North Bull Island SPA (Site Code 004006) – c. 14km to the east.
- Baldoyle Bay SPA (Site Code 004016) approximately 16km to the east of the site,
- Baldoyle Bay SAC (Site Code 000199) approximately 16km to the east of the site.
- North-west Irish Sea SPA (Site Code 004236) approximately 17km to the east of the site.

## **Step 2: Potential impact mechanisms from the project**

The applicant has applied the source-pathway-receptor model in determining possible impacts and effects of the development. The proposed development will not result in any direct effects on any European Site. The Powerstown Stream is approximately 350m to the north of the site and flows westwards where it connects with the Pinkeen River which flows south to the Tolka River and on to Dublin Bay.

Potential indirect impacts from the project during the construction stage would include,

- Uncontrolled surface water runoff discharging to existing surface water drainage network
- Dust, noise, vibration,
- Lighting / disturbance,
- Groundwater / surface water pollution from chemicals or construction materials stored on site.

Potential indirect impacts from the project during the operational stage would include,

- Habitat fragmentation,
- Lighting / disturbance,
- Changes to water quality in surface water runoff.

### **Step 3: European Sites at risk**

When the source-pathway-receptor model is applied no direct pathway is identified between the subject site and any European site. The closest European sites are the Rye Water Valley / Carton SAC (Site Code 001398) and the South Dublin Bay and River Tolka Estuary SPA (Site Code 004024).

There is no hydrological connection between the subject site and the Rye Water Valley / Carton SAC. No ecological corridors exist between the sites and the separation distance is approximately 8km between both sites. I have reviewed the Qualifying Interests (QIs) for the Rye Water Valley / Carton SAC, and I am satisfied that no pathway exists between both sites and that the proposed development would have no likely significant effect on any qualifying features of the SAC.

The South Dublin Bay and River Tolka Estuary SPA is approximately 12km from the subject site. The Porterstown Stream flows in a westerly direction to the north of the site. This stream presents a weak indirect hydrological connection with the river Tolka which flows to the South Dublin Bay and River Tolka Estuary SPA. Potential impacts from the development via the stream would be limited to surface water runoff from the site during the construction stage. There is a separation distance of c. 350m between the northern site boundary and the stream. The Clayton Hotel complex and part of the Bristol Myers Squibb site provides a buffer zone between the site and the stream. Given the separation distance from the stream and the presence of the existing development which forms a buffer zone around the site, there would be no likelihood of a significant effect on the water quality of the stream and the SAC as a result of the development.

There is no pathway between the subject site and the Malahide Estuary SAC and the Baldoyle Bay SAC. Given the mobile nature of the QIs for SPAs, the following European sites warrant further consideration,

- South Dublin Bay and River Tolka Estuary SPA
- Malahide Estuary SPA
- North Bull Island SPA

- Baldoyle Bay SPA
- North-west Irish Sea SPA

**Table 1 European Sites at risk from impacts of the proposed project**

<b>Effect mechanism</b>	<b>Impact pathway/Zone of influence</b>	<b>European Site(s)</b>	<b>Qualifying interest features at risk</b>
Disturbance from noise / light pollution.  Disturbance of habitat of ex-situ site.		South Dublin Bay and River Tolka Estuary SPA	Light-bellied Brent Goose Oystercatcher Ringed Plover Grey Plover Knot Sanderling Dunlin Bar-tailed Godwit Redshank Black-headed Gull Roseate Tern Common Tern Arctic Tern Wetland and Waterbirds
		Malahide Estuary SPA	Great Crested Grebe Light-bellied Brent Goose Shelduck Pintail Goldeneye Red-breasted Merganser Oystercatcher Golden Plover Grey Plover Dunlin Black-tailed Godwit Bar-tailed Godwit Redshank Wetland and Waterbirds
		North Bull Island SPA	Light-bellied Brent Goose Shelduck Teal Pintail Shoveler Oystercatcher Golden Plover Grey Plover Knot

			Sanderling Dunlin Black-tailed Godwit Bar-tailed Godwit Curlew Redshank Turnstone Black-headed Gull Wetland and Waterbirds
		Baldoyle Bay SPA	Light-bellied Brent Goose Shelduck Ringed Plover Golden Plover Grey Plover Bar-tailed Godwit Wetland and Waterbirds
		North-west Irish Sea SPA	Red-throated Diver Great Northern Diver Fulmar Manx Shearwater Cormorant Shag Common Scoter Little Gull Black-headed Gull Common Gull Lesser Gull Herring Gull Great Black-backed Gull Kittiwake Roseate Tern Common Tern Arctic Tern Little Tern Guillemot Razorbill Puffin

**Step 4: Likely significant effects on the European site(s) 'alone'**

The subject site is in an urban area with residential development to the west and large scale industrial and commercial development adjoining the site to the east and in the wider industrial area of Cruiserath and Huntstown. The development site forms part of a wider masterplan site which has been partially developed with

three data centres already in place and operational within the site. Given the nature and location of the site and the surrounding uses, any noise and/or disturbance from the construction or operational stages of the development would not be likely to result in any significant impacts on the QIs of the closest SPAs, which are listed in the table above.

Given the nature of the QIs for the SPA, the potential for the subject site as an ex-situ site was explored in the Screening Report. Field studies carried out the Biodiversity Chapter of the EIAR found that the site does not have the capacity to host annexed species of any kind. There is sufficient separation distance between the site and any European site to ensure that there will be no disturbance to qualifying interest species of the SPA of any other European site.

I note that the North-west Irish Sea SPA was not included in the Screening Report for the development. The SPA was designated in July 2023, which was after the date the application was submitted. I have considered the site in my screening I am satisfied that given the distance between the sites and the lack of any ecological or direct connection between the sites that the development would not result in significant impacts on the QIs of the North-West Irish Sea SPA. I conclude that the proposed development would have no likely significant effect 'alone' on any qualifying feature(s) of any European sites. Further AA screening in-combination with other plans and projects is required.

**Step 5: Where relevant, likely significant effects on the European site(s) 'in-combination with other plans and projects'**

Section 5.2 of the Screening Report considered the potential for 'in-combination' effects with other plans and projects. Table 3 of the Screening Report sets out a review of all permitted developments and those awaiting decisions within the last five years and within a 500m radius of the subject site. The developments listed include minor developments as well as larger infrastructural developments and those permitted within the masterplan site and the wider landholding.

Potential in-combination impacts would be limited to those occurring during the construction stage of the development. Given the location of the proposed development, the lack of a pathway between the site and any European site, the nature and location of permitted plans and projects and those pending approval, the proposed development would have no likely significant 'in-combination' effect on any qualifying feature(s) of any European sites.

I conclude that the proposed development would have no likely significant effect in combination with other plans and projects on the qualifying features of any European site(s). No further assessment is required for the project.

### **Overall Conclusion- Screening Determination**

I conclude that that the proposed development would not have a likely significant effect on any European Site either alone or in combination with other plans or projects. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is not required.

This conclusion is based on,

- Objective information presented in the Screening Report
- The limited zone of influence of potential impacts, restricted to the immediate vicinity of the proposed development,
- Distance from European Sites, and
- The absence of meaningful pathway to any European site,

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.