



An
Coimisiún
Pleanála

Inspector's Report ABP-320852-24

Development

Ten-year planning permission is sought for the expansion of existing Google Ireland Limited operations including the development of a data storage facility and all associated works. An Environmental Impact Assessment Report (EIAR) was submitted with the application.

Location

Grange Castle Business Park South and Profile Park, Baldonnell, Dublin 22, D22 X602

Planning Authority

South Dublin County Council

Planning Authority Reg. Ref.

SD24A/0164W

Applicant(s)

Google Ireland Limited.

Type of Application

Permission.

Planning Authority Decision

Refuse.

Type of Appeal

First Party

Appellant(s)

Google Ireland Limited.

Observer(s)

- John Conway and Louth Environmental Group
- Dr. Colin Doyle
- An Taisce

Date of Site Inspection

21st January 2025.

Inspector

Terence McLellan

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1.0 Site Location and Description

- 1.1. The subject site is part of the existing Google Ireland (GIL) Data Centre Campus which is located in Grange Castle Business Park South in the townlands of Aungierstown, Ballybane and Kilbride on the outskirts of Dublin City. The site is broadly to the south of Adamstown and the west of Clonburris, approximately 13km from Dublin city centre and c. 5km from the M50. Grange Castle Business Park South is separated from the wider Grange Castle Business Park to the north by the R134 New Nangor Road. It is further bounded by the neighbouring Profile Park business campus to its east, with the southern and western boundaries being marked by Baldonnell Road from which the main access into the business park is taken. There are a number of existing data centres on the Grange Castle campus as well as on neighbouring sites at Profile Park.
- 1.2. The existing GIL Campus is located on the southern edge of the business park and incorporates two existing GIL data centres (DC1 and DC2) in addition to infrastructure facilities such as substations. The subject site wraps around the south, east and north of the existing GIL facilities which in turn make up the northern and (partial) western boundaries of the appeal site. The east boundary is the Profile Park whilst the southern boundary is Baldonnell Road which also wraps around the west. The site itself is characterised by both brownfield and greenfield land. The brownfield land is largely hardcore, covering the central and western parts of the site. The remainder of the site is largely greenfield. There is a stream running south to north which is largely concealed by hedgerows and colonising vegetation as well as being culverted under existing buildings. The southern and western boundary along Baldonnell Road is heavily planted, including hedgerows and trees.
- 1.3. The existing GIL data centre buildings and the buildings on the adjacent sites at Profile Park to the east and Grange Castle to the north, are of a design, scale, and massing that is typical of business campus buildings. There are several homes on the southern side of Baldonnell Road and to the west of the subject site. These are generally detached single to one and half storey homes on large plots. Also to the south east is Casement Aerodrome and the Irish Air Corp facilities. The nearest facilities to the site appear to be the accommodation blocks which are generally single or two storeys.
- 1.4. The GIL Campus is accessed from the main arterial business park road connecting from Baldonnell Road. Road connections from within Grange Castle Business Park

South to Profile Park are not possible. The nearest public transport to the site is Dublin Bus service 13 and 68, both available from bus stops on the R134 New Nangor Road, approximately 1.2km to the north. Train services are available from Kishoge Station, also to the north and approximately 3.6km away.

2.0 Proposed Development

- 2.1. A ten year planning permission is sought for the redevelopment of the site to provide a 72,400m² data storage facility (DC3) which would incorporate eight data halls with associated support areas, a high voltage (HV) compound, offices, staff facilities, a loading area, mechanical yards (MYD) and electrical yards (EYD), internal and external utilities, and ancillary buildings.

Type	Description	Area (m ²)
Building (GFA)	DC3 Data Halls	25,530
	Facility Support Area	3,120
	HV Compound	300
Equipment	MYD (A and B)	2,175
	EYD	6,900
Total (GFA)		38,115 ¹

- 2.2. The proposed data centre, FSA and Electrical Yard would be located to the south of the existing GIL Campus and DC1/DC2. The data centre and FSA together would measure c.82.9 metres in depth and c. 345m in length. In terms of height, the data centre would be c. 11.2m tall, reducing to c. 8m at the FSA part of the building. An electrical yard would be located to the south of the data centre and run its entire length. This would accommodate external generators for emergency power back up with each generator served by a flue up to 15 metres in height (and up to 16.5 when accounting for the flue cap). The electrical yard would account for 36 flues. The mechanical yards

¹ Whilst gross floor area equates to 38,115sqm, the total developed area inclusive of ancillary support areas comprises 72,400sqm.

would be positioned centrally within the campus on either side of DC1. The mechanical yards would account for an additional nine flues, bringing the overall total to 45.

- 2.3. Parking would be provided for 42 cars (inclusive of ten EV charging stations and four accessible bays). The scheme incorporates 16 bicycle parking spaces. A comprehensive scheme of landscaping is proposed. This would incorporate the re-routing of the existing stream through the site in addition to the provision of attenuation ponds.
- 2.4. The development would be powered through an existing Eirgrid connection and includes the installation of a new high voltage (HV) compound to support the data centre. The high voltage connections being provided within the campus from the existing Eirgrid substation to the proposed HV compound would be subject to a Strategic Infrastructure Development application under Section 182A of the Planning and Development Act.
- 2.5. The proposed development would also be subject to an Industrial Emissions (IE) licence from the EPA. The existing GIL data centres are regulated by the EPA through Industrial Emissions (IE) licence P1189-01 which allows the Applicant to carry out the 'combustion of fuels in installations with a total rated thermal input of 50 MW or more', and this is related to the use of back-up generators. The existing licence would require an update to accommodate the proposed development.

3.0 Planning Authority Decision

3.1. Decision

- 3.1.1. Notification of the Decision to Refuse Permission was issued by South Dublin County Council on the 26th August 2024 confirming that permission was refused on the 22nd August 2024 for the following two reasons:

1. Having regard to the existing insufficient capacity in the electricity network (grid), the lack of significant on site renewable energy to power (below 100%) the proposed development, the lack of clarity provided in relation to the Applicant's engagement with Power Purchase Agreements (PPAs) in Ireland with regard the development in question rather than the site or wider arrangements in place, the lack of a connection to the surrounding district

heating network, the proposed design of the development as well as how it relates to its surroundings, and lack of detail of how the proposal will impact power supply once operational (2027), it is considered that the applicant has failed to demonstrate that the proposed use is acceptable on EE zoned lands, in accordance with EDE7 Objective 2 and Section 12.9.4 of the South Dublin County Development Plan 2022-2028. In this regard the proposed development, would, therefore, be contrary to the proper planning and sustainable development of the area.

2. The proposed development does not comply with EDE7 Objective 3, GI1 Objective 4, GI2 Objective 2, GI2 Objective 4, GI1 Objective 1, NCBH11 Objective 3, 4 and 5 and GI5 Objective 4 the South Dublin County Development Plan 2022-2028 in relation to the retention and protection of existing green infrastructure (stream and hedgerow), culverting and alteration of the stream on site, provision of green infrastructure, and complying with the SDCC Green Space Factor. In this regard the proposed development, would, therefore, be contrary to the proper planning and sustainable development of the area.

3.2. Planning Authority Reports

- 3.2.1. The Chief Executive's Order was issued on the 22nd August 2024 and forms the basis of the Planning Authority's decision to refuse permission. The Chief Executive's Order contains the following points of note:

- The site is majority zoned EE (Economy and Enterprise). Data centres and offices are open for consideration under this zoning objective. Additional information required to justify quantum of office space.
- Part of the site is zoned RU (rural). Landscaping is proposed in this area and further detail is required in terms of its impact on the RU zoning objective.
- Additional information is recommended in terms of the justification for a ten year permission.
- The development would not meet the requirements of EDE1 Objective 6 and would not facilitate a sufficient reduction in greenhouse gas emissions.

- The scheme has been assessed against Policy EDE7: Space Extensive Land Use, Objective 2, Parts A – J. The development fails to comply with Parts B, C, D, F, G.
- Part B – The level of onsite solar is stated as 20% of the total required energy, this is a significant shortfall on the required aim of 100%.
- Part C - The Power Purchase Agreement with the Tullabeg Solar Farm does not provide a sufficient energy offset in terms of the subject site or the wider GIL site and it is not clear if the 58MW relates to peak output.
- It is stated that the PPA can power 60% of the development by 2025 but the development would not be operational until 2027. Clarity is required on what level of energy supply would be remaining and if the PPA relates to the subject development or the wider GIL site.
- Part D – It is not clear if there is sufficient capacity within the electricity network for the proposed development, either as a sole development or as part of the wider site. The EIAR indicates that there would be a negative impact on power supply which implies that there is insufficient network capacity.
- Part F - The applicant has confirmed that the proposed development could include measures to facilitate district heating or heat networks if one becomes available, but there is no commitment to harnessing the excess heat produced from the proposed development. This could be secured by condition.
- Part G – A design and Access Statement was submitted. The scheme fails to secure a high quality design approach that reduces massing and visual impact. The building provides long facades, which are unbroken in terms of massing, with little detail or architectural expression. The main building runs parallel to Baldonnell Road for an extensive length which is a transitional zone between EE and RU zoning with residential properties. Design measures could be employed to reduce massing and improve the appearance /design quality of the building. The Applicant's measures are not considered sufficient.
- EDE7, Objective 3 – There would be a loss of a major green infrastructure corridor travelling through the southern centre of the site, including a stream

and a hedgerow. The development fails to meet the requirements of Objective 3.

- The development does not comply with the key principles for Enterprise and Employment Zones in terms of: Access and Movement (failure to comply with DMURS footpath standards); Open Space and Landscape, and Green Infrastructure (loss of green infrastructure); Built Form and Corporate Identity (scale, massing, appearance).
- The report considers that many issues could be addressed by way of additional information, including design; public realm and placemaking; public art; transport; heritage/Protected Structures; and residential/visual amenity. Information was not sought given the substantive reasons for refusal.
- In terms of the EIAR, The Planning Authority has reviewed the alternatives put forward and acknowledges that the Applicant has considered a number of options but there are outstanding concerns and issues in terms of compliance with CDP policies and objectives. The main significant direct and indirect residual effects have been considered, however, due to the refusal of permission, the cumulative impacts of the interactions should be reviewed and reassessed once EDE7 Objectives 2 and 3 have been satisfied. This should include further assessment of cumulative impacts of data centres permitted close to the site and further consideration of visual impacts.

3.3. Other Technical Reports

- 3.3.1. **Environmental Health Officer (16.08.2024):** The proposal is acceptable, subject to conditions. The recommended conditions relate to noise, odours/emissions, dust, community consultation/liaison.
- 3.3.2. **Public Realm (20.08.2024):** Concerns raised regarding the loss of a major green infrastructure corridor travelling through the southern section of the site. Additional Information was recommended seeking relocation of the building in order to maintain the green infrastructure corridor, increase the Green Space Factor from the proposed 0.26 to the required 0.7, and limit both the amount of stream being culverted and the extent of development within flood zones A and B. It is also recommended that 10m setbacks be provided from watercourses.

- 3.3.3. **Public Lighting (21.08.2024):** Recommend standard lighting conditions.
- 3.3.4. **Roads (22.08.2024):** The Roads section recommend conditions in the event that permission is granted. The conditions are generally standard. Additional Information was also recommended in terms of the submission of a Road Safety Audit, provision of minimum 1.8m wide footpaths, reduction in car parking spaces, increase in cycle parking, clarity on where construction workers will park vehicles, and provision of a cross section of all internal roads.
- 3.3.5. **Water Services (21.08.2024):** Recommend seeking Further Information on surface water. This includes the provision of a green roof, location and capacity of surface water attenuation, and submission of a report detailing the different surface types proposed, run off coefficients and required/proposed attenuation. In terms of flood risk, it is recommended that permission be refused due to the location within flood zone A or B and the fact that the development increases the area of stream being culverted. If development is to be granted, then it should limit the length of stream to be culverted and minimise development in flood zones A and B as much as possible whilst maintaining a minimum setback distance of 10m to any watercourse.

3.4. **Prescribed Bodies**

- 3.4.1. **An Taisce (01.08.2024):** Concerns raised regarding the proliferation of data centres, electricity consumption and the impact on achieving legally binding carbon budgets. Further issues are raised regarding the emissions impact of the development alone and cumulatively with other data centres. The response states that there is a lack of clarity regarding the Power Purchase Agreement and that PPA's undermine efforts to decarbonise.
- 3.4.2. An Taisce do not consider district heating to be an adequate mitigation measure in this case and reiterate the legally binding nature of carbon budgets. In terms of the Government Statement on Data Centres, An Taisce consider that it cannot be used as a framework or criteria to permit development and that the statement should have been subject to public consultation, albeit noting that the statement itself acknowledges the need to limit further data centre expansion. It is stated that the capacity of the grid to accommodate another data centre should be fully assessed and that water consumption levels should be assessed against up to date climate

modelling and forecasting with the proposal also being assessed against Article 4 of the Water Framework Directive.

- 3.4.3. **Department of Defence (29.08.2024):** Given the proximity to Casement Aerodrome, operation of cranes should be coordinated with Air Corps Air Traffic Services, no later than 28 days before use.
- 3.4.4. **Department of Housing, Local Government, and Heritage (19.08.2024):** The Department notes that Chapter 14 of the EIAR recommends that a geophysical survey and archaeological testing of the site be carried out during the pre-construction phase of development and that archaeological monitoring of all topsoil removal and the removal of the townland boundary be carried out. The Department partially agrees with this recommendation but considers that any recommendation for archaeological monitoring at this stage is pre-emptive given that no other physical archaeological investigations have taken place. It is therefore recommended that an Archaeological Impact Assessment (including Geophysical Survey and Archaeological Test Excavation) be carried out as Further Information with a report containing the results to be submitted to the Department and the Planning Authority prior to any planning decision, so as to facilitate the formulation of an appropriate and informed archaeological recommendation.
- 3.4.5. **Environmental Protection Agency (EPA) (19.08.2024):** Google Ireland Limited was issued an Industrial Emissions (IE) Licence (Register No. P1189-01) on the 12 October 2023. The licence may need to be reviewed or amended to accommodate the changes proposed in the planning application. Licence review will be subject to an Environmental Impact Assessment in accordance with Section 83(2A) and Section 87(1G)(a) of the EPA Act, and consultation in accordance with Section 87 (1B) to (1H) of the EPA Act.
- 3.4.6. **Irish Aviation Authority (IAA) (23.08.2024):** The Applicant should be required to engage with Weston Airport and the Department of Defence to assess and confirm that the development and any associated cranes would have no impact on the safety of flight operations at Weston Airport and Casement Aerodrome. If permission is granted then a condition is recommended that the Applicant contact Weston Airport, the Department of Defence, and the IAA, with at least 30 days prior notification.

3.4.7. **Uisce Éireann (28.06.2024):** No objection. Standard conditions are recommended regarding connection agreements.

3.5. **Third Party Observations**

3.5.1. Nine observations were submitted to the Planning Authority in response to the planning application. These are summarised in the Chief Executive's Order (planning report) and are on file for the Commission's information. I am satisfied that the main issues raised are reflected in the observations submitted on the appeal which are set out in detail at Section 6.4 below. In terms of a broad summary, the matters raised at planning application stage include:

- Power supply, energy needs and consumption, back up generation and type, flawed PPA, lack of clarity regarding PPA, achievement of 80% renewables, feasibility of district heating, excessive demand on the grid.
- Cumulative impact of data centres, concentration of data centres in South Dublin County.
- Carbon emissions, carbon targets, legal obligations, compliance with Climate Action Plan, lack of competent authority regarding greenhouse gases, emissions from back up generation.
- Impact on Ireland meeting its climate targets and carbon budgets.
- Impacts on water and water consumption.
- Compliance with national and European policy, guidance and legal obligations, compliance with Development Plan policy EDE7 Objective 2, employment contributions.
- Design matters, sustainability, green infrastructure.
- Inadequate mitigation.
- Reasoning/justification for 10 year permission.

4.0 **Planning History**

Subject Site/GIL Campus

4.1. **Planning Authority Reference SD11A/0121:** Permission was granted by SDCC in August 2011 for the development of the DC1 data centre.

- 4.2. **Planning Authority Reference SD14A/0023:** Permission was granted by SDCC in April 2014 for the development of the DC2 data centre, including a HV substation and ancillary development.
- 4.3. **Planning Authority Reference SD14A/0284:** Permission was granted in March 2015 for alterations to the previously approved DC2 data centre (SD14A/0023).

Adjacent Sites

- 4.4. There are various permissions for data centres on lands adjacent to the appeal site including the following:
- SD21A/0217 – Profile Park (adjacent to the east boundary).
 - SD21/0241 - Profile Park (to the north east of the site).
 - SD20A/0124 – Profile Park (to the north/north east).
 - SD20A/0121 – Grange Castle Business Park South (adjacent to the northern boundary).

5.0 Policy Context

5.1. National Policy and Guidance

The National Planning Framework First Revisions April 2025

- 5.1.1. The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of the country to the year 2040. A key element of the NPF is a commitment towards 'compact growth', which focuses on a more efficient use of land and resources through reusing previously developed or under-utilised land and buildings. A number of National Policy Objectives (NPO) are of relevance, including:
- 5.1.2. **National Strategic Outcome 6** - 'A Strong Economy supported by Enterprise, Innovation, and Skills. NSO6 states that Ireland is very attractive in terms of international digital connectivity, climatic factors and current and future renewable energy sources for the development of international digital infrastructures, such as data centres. These factors help to underpin Ireland's international position as a leading location for ICT, which contributes to wider synergies in the economy as

indigenous and multinational enterprises develop linkages and benefit from the potential of regional clustering. Achieving the goals of NSO6 will depend on creating places that can foster enterprise and innovation and attract investment and talent. It can be achieved by building regional economic drivers, by recognising and supporting enterprise specialisations and clusters which can drive economic activity in each region by strengthening linkages between companies of different sizes and stages of development, regionally, nationally and across the island and by supporting opportunities to diversify and strengthen the rural economy. Delivering this outcome will require the coordination of growth and place making with investment in world class infrastructure, including digital connectivity, and in skills and talent to support economic competitiveness and enterprise growth.

- 5.1.3. **National Strategic Outcome 8** – ‘Transition to a Carbon Neutral and Climate Resilient Society’. The national climate objective is to achieve a competitive, low-carbon, climate-resilient, biodiversity rich, and environmentally sustainable and carbon neutral economy by 2050. The Climate Action and Low Carbon Development (Amendment) Act was enacted in 2021 with a commitment to a legally binding target to reduce greenhouse gas emissions by 51% and increase the share of electricity generated from renewable sources to 80% over the decade (2021 – 2030), and to achieve net zero emissions no later than 2052. This objective will shape investment choices over the coming decades in line with the National Climate Action Plan 2024 and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.

Climate Action and Low Carbon Development (amendment) Act 2021

- 5.1.4. This Act amends the Climate Action and Low Carbon Development Act 2015. It sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050. The Act commits us, in law, to a move to a climate resilient and climate neutral economy, with 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.

Climate Action Plan (CAP) 2025

- 5.1.5. The CAP 2025 is the third annual update to Ireland's Climate Action Plan and should be read in conjunction with CAP 2024. Its purpose is to lay out a roadmap of actions which will ultimately lead Ireland to meeting our national climate objective of pursuing and achieving, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. The plan seeks to reduce Ireland's greenhouse gas (GHG) emissions by 51% by 2030. It aligns with the legally binding economy-wide carbon budgets and sectoral emissions ceilings that were agreed by Government in July 2022.
- 5.1.6. The CAP provides sectoral emissions ceilings which is 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 is 40 MtCO₂² in the period 2021-2025, and 20 MtCO₂ in the period 2026-2030. The Built Environment – Commercial Sector has a ceiling of 7 MtCO₂ to 2025 and 5 MtCO₂ to 2030.

Climate Change Advisory Council (CCAC) – Annual Review 2024

- 5.1.7. 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.
- 5.1.8. 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.'

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

² Million tonnes of carbon dioxide equivalent.

- 5.1.9. The statement 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. This statement sets out how digital and climate change policies can be achieved in respect to data centres, recognising the capacity constraints within the electricity system and the significantly large loads required by data centres. The statement accords with the CRU Direction to the System Operators related to Data Centre Grid Connection Processing (CRU/21/124), which allows the data centre industry to continue to connect to the electricity grid, subject to certain conditions.
- 5.1.10. New data centre connections are required to have on-site generation (and/or battery storage) that is sufficient to meet their own demand. To assist in full decarbonisation of the power system, this generation should also be capable of running on renewably sourced fuels (such as renewable gas or hydrogen) when supplies become more readily available. The Statement communicates the Government's clear preference for data centres that are associated with strong economic activity and employment and that make efficient use of the national grid in addition to delivering renewable energy. The Government has agreed the following set of principles that should inform and guide decisions on future data centre development:
1. Economic Impact – The Government has a preference for data centre developments associated with strong economic activity and employment. In assessing economic impact, the totality of the Irish-based economic impact should be considered and factors such as associated total corporate employment, exports, wage levels, Irish materials/services purchased taken into account
 2. Grid Capacity and Efficiency – The Government has a preference for data centre developments that make efficient use of our electricity grid, using available capacity and alleviating constraints.
 3. Renewables Additionality - The Government has a preference for data centre developments that can demonstrate the 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.

4. Co-location of Proximity with Future Proof Energy Supply - The Government has a preference for data centre developments in locations where there is the potential to co-locate a renewable generation facility or advanced storage with the data centre, supported by a CPPA, private wire or other arrangement. The Government also encourages the co-location of downstream value-adding activities that can make use of carbon, excess heat and other outputs from the data centre activity, such as for horticultural activities or district heating schemes.
5. Decarbonised Data Centres by Design - The Government has a preference for data centres developments that can demonstrate a clear pathway to decarbonise and ultimately provide net zero data services.
6. SME Access and Community Benefits – The Government has 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.

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

5.1.11. The CRU issued the following direction to EirGrid as TSO and ESBN as DSO to consider specific assessment criteria when considering data centre grid connection applications, as a result of pressures on the grid and demand for new data centre applications. Applications for new connections should have regard to the following criteria

- 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 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 through the use of 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, in order 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.

Other National Guidelines

- 5.1.12. **The Planning System and Flood Risk Management, Guidelines for Planning Authorities (2009)** - The guidelines seek to: Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere; Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and, Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals.
- 5.1.13. **Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018)** - The purpose of the Guidelines is to provide practical guidance for Planning Authorities and the Board (competent authorities) on legal and procedural issues and matters of interpretation arising from the amended Directive, which should result in greater consistency in procedures adopted by competent authorities in the planning system.
- 5.1.14. **Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (2009)** – This document provides guidance on the various steps required to undertake Appropriate Assessment, including screening, the application of

the precautionary principle, and the assessment of Natura Impact Statements, with decisions based on the best scientific evidence and methods.

5.2. Regional Policy and Guidance

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

- 5.2.1. The RSES is a strategic plan and investment framework to shape the development of the region to 2031. The primary statutory objective of the Strategy is to support implementation of Project Ireland 2040 - which links planning and investment through the National Planning Framework (NPF) and ten year National Development Plan (NDP) - and the economic and climate policies of the Government by providing a long-term strategic planning and economic framework for the Region. The RSES seeks to build a resilient economic base and promote innovation and entrepreneurship ecosystems that support smart specialisation, cluster development and sustained economic growth.
- 5.2.2. Chapter 7 Section 7.9 refers to Climate Change and the need to support the transition to a low carbon, circular and climate resilient region, and decarbonising the energy sector.
- 5.2.3. Regional Policy Objective (RPO) 8.25: Local authorities shall:
- Support and facilitate delivery of the National Broadband Plan.
 - Facilitate enhanced international fibre communications links, including full interconnection between the fibre networks in Northern Ireland and the Republic of Ireland.
 - Promote and facilitate the sustainable development of a high-quality ICT network throughout the Region in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas.
 - Support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations.

- Promote Dublin as a demonstrator of 5G information and communication technology.

5.3. Local Policy and Guidance

South Dublin County Development Plan 2022-2028

- 5.3.1. The South Dublin County Development Plan 2022-2028 (hereafter referred to as the CDP), is the operative development plan for the County. Under the CDP, the site benefits from two zoning objectives. The majority of the site is Zoned EE – Enterprise and Employment, which has the stated objective to provide for enterprise and employment related uses. Data centre, offices 100sqm-1,000sqm and offices over 1,000sqm are ‘Open for Consideration’ on EE zoned lands. A Ministerial Direction issued in November 2022 directed the Planning Authority to amend the land use zoning objectives in Table 12.4, 12.8 and 12.10 to reinstate data centre use class as an ‘open for consideration’ use class in the Enterprise and Employment (EE) zoning objective, as well as within the REGEN and MRC zoning objectives.
- 5.3.2. A small section of land in the south east corner of the site is zoned RU – Rural and Agriculture, the stated objective of which is to protect and improve rural amenity and to provide for the development of agriculture. Development in this section would be restricted to landscaping.
- 5.3.3. There are four Protected Structures in the wider surroundings of the subject site. These are:
- RPS 180 – Castle Bagot House
 - RPS 182 – Kilmactawley Church and Graveyard
 - RPS 184 – Kilbride Church and Graveyard
 - RPS 188 – Casement Aerodrome
- 5.3.4. Chapter 2 of the CDP is the Core Strategy which aims to maximise the potential of the County to deliver a compact settlement form in line with National and Regional population targets, with a strong focus on regeneration and the redevelopment of brownfield over greenfield lands. Policies and objectives of relevance include:

- CS1, Objective 1 - To ensure a sustainable and plan led allocation of housing and employment growth within the strategic development areas of South Dublin County in line with the provisions of the MASP.
- CS5, Objective 2 - To ensure that, insofar as possible, space extensive enterprise is located on lands which are outside the M50 and which do not compromise labour intensive opportunities on zoned lands adjacent to public transport.

5.3.5. Chapter 4: Green Infrastructure promotes the development of an integrated GI network for South Dublin County working with and enhancing existing biodiversity and natural heritage, improving our resilience to climate change and enabling the role of GI in delivering sustainable communities to provide environmental, economic and social benefits. Policies and objectives of relevance include:

- GI1, Objective 4 - To require development to incorporate GI as an integral part of the design and layout concept for all development in the County including but not restricted to residential, commercial and mixed use through the explicit identification of GI as part of a landscape plan, identifying environmental assets and including proposals which protect, manage and enhance GI resources providing links to local and countywide GI networks.
- GI2, Objective 4 - To integrate GI, and include areas to be managed for biodiversity, as an essential component of all new developments in accordance with the requirements set out in Chapter 12: Implementation and Monitoring and the policies and objectives of this chapter.
- GI5, Objective 4 - To implement the Green Space Factor (GSF) for all qualifying development comprising 2 or more residential units and any development with a floor area in excess of 500 sq m. Developers will be required to demonstrate how they can achieve a minimum Green Space Factor (GSF) scoring requirement based on best international standards and the unique features of the County's GI network.
- GI3, Objective 4 - To uncover existing culverts where appropriate and in accordance with relevant river catchment proposals to restore the watercourse

to acceptable ecological standards for biodiversity wherever possible improving habitat connection and strengthening the County's GI network.

- Policy GI4: Sustainable Drainage Systems - Require the provision of Sustainable Drainage Systems (SuDS) in the County and maximise the amenity and biodiversity value of these systems.

5.3.6. Chapter 5: Quality Design and Healthy Placemaking, seeks to create a leading example in sustainable urban design and healthy placemaking that delivers attractive, connected, vibrant and well-functioning places to live, work, visit, socialise and invest in. Policies and objectives of relevance include:

- Policy QDP7: High Quality Design
- Policy QDP8: High Quality Design – Building Height and Density Guide
- Policy QDP11: Materials, Colours and Textures

5.3.7. Chapter 9: Economic Development and Employment seeks the creation of a strong and resilient economic base providing expanded opportunities for employment and facilitating a good quality of life within vibrant and attractive places to live, work, visit and invest. Policies and objectives of relevance include:

- Policy EDE1 - Support sustainable enterprise and employment growth in South Dublin County recognising the County's role in the Dublin region as a driver of economic growth.
- EDE1, Objective 2 – To develop and support the Dublin Metropolitan Area Strategic Plan (MASP) through growth in the identified strategic development and employment areas of South Dublin County, as part of the growth of the Dublin Region to a sufficient scale and quality to compete internationally and to be drivers of national and regional growth, investment, and prosperity consistent with NSO 5 of the NPF.
- EDE1, Objective 6 - To ensure that economic and enterprise related development is provided in a manner which facilitates a reduction in greenhouse gas emissions by supporting and promoting the following measures:

- An increase in employment densities within walkable distances of communities and on public transport routes;
 - Promotion of walking and cycling and use of public transport through increased permeability and mobility management measures within and outside employment areas;
 - The sourcing of power from district heating and renewables including wind, hydro and solar;
 - Additional native tree planting and landscaping on existing and proposed enterprise zones and development sites to aid with carbon sequestration, contribute to the green infrastructure network of the County and promote quality placemaking.
- EDE4, Objective 4 - To direct people intensive enterprise and employment uses such as major office developments (>1,000 sq m gross floor area) into appropriately zoned lands subject to their location within approximately 500 metres of a high frequency urban bus service and / or within 1000 metres walking distance of high capacity transport stops (Train / Luas), and to demonstrate the required walking distance or provision of a permeability project, in accordance with the Permeability Best Practice Guide (2015), to achieve same.
 - Policy EDE5 - Support clustering, by creating, maintaining, or upgrading economic strongholds in a favourable business ecosystem.
 - EDE5, Objective 4 - To encourage the development of initiatives to utilise sectoral clusters in the County to grow new enterprise ecosystems with layers of value, innovation and investment.

5.3.8. Section 9.3 of Chapter 9 relates to Space Extensive Land Use. It states that Certain types of development are particularly land hungry. Typically, these land use types have lower employment opportunity although it is recognised that there may be potential to add value as promoted in objective EDE5 Objective 4 above. Space extensive enterprise should not compete for lands which are more suitable for labour intensive enterprise by reason of their location adjacent to public transport nodes or within existing built up, compact growth areas. Alongside warehousing, data centres

are one of the most space extensive land use types in the County. Dublin is one of the fastest growing data centre markets in Europe with a significant element of this growth in South Dublin County. It is recognised that the requirement for data centres is increasing with social and technology needs such as 5G, smart cities and artificial intelligence. Technology is constantly evolving with Cloud computing now shifting to Edge computing and a need for smaller data centres closer to cities and end users.

5.3.9. Space extensive land uses generally have a higher carbon footprint, whether because of transport related uses or the large amounts of energy demanded by them. The Development Plan will encourage, through its policies, high energy users to demonstrate ways to reduce or negate reliance on fossil fuels and to redistribute energy for other end users where such potential exists.

- Policy EDE7: Space Extensive Land Use - Recognise the need for land extensive uses and ensure that they are located within appropriate locations having regard to infrastructural, transport and environmental considerations and the need for orderly growth.
- EDE7, Objective 1 - To ensure that, insofar as possible, space extensive enterprise is located on lands which are outside the M50, and which do not compromise labour intensive opportunities on zoned lands adjacent to public transport.
- EDE7, Objective 2 - To require that space extensive enterprise demonstrates the following:
 - a) The appropriateness of the site for the proposed use having regard to EDE7 Objective 1;
 - b) Strong energy efficiency measures to reduce their carbon footprint in support of national targets towards a net zero carbon economy, including renewable energy generation;
 - c) Maximise on site renewable energy generation to ensure as far as possible 100% powered by renewable energy, where on site demand cannot be met in this way, provide evidence of engagement with power purchase agreements in Ireland (PPA);

- d) Sufficient capacity within the relevant water, wastewater and electricity network to accommodate the use proposed;
 - e) Measures to support the just transition to a circular economy;
 - f) Measures to facilitate district heating or heat networks where excess heat is produced;
 - g) A high-quality design approach to buildings which reduces the massing and visual impact;
 - h) A comprehensive understanding of employment once operational;
 - i) A comprehensive understanding of levels of traffic to and from the site at construction and operation stage;
 - j) Provide evidence of sign up to the Climate Neutral Data Centre Pact.
- EDE7 Objective 3: To ensure that landscaping and site layout in space extensive developments provides for demonstrated biodiversity measures and that landscape and biodiversity measures integrate into the green infrastructure network, in accordance with the Green Infrastructure Strategy set out in Chapter 4 of this Plan

5.3.10. Chapter 10: Energy aims to deliver a green society and circular economy adaptable to new technologies, a home and place of employment for people and industries striving towards reducing their carbon footprint. Policies and objectives of relevance include:

- Policy E3 - Energy Performance in Existing and New Buildings
- E3, Objective 3 - To require all new development to be designed to take account of the impacts of climate change, and that energy efficiency, energy provision and renewable energy measures are incorporated in accordance with national building regulations and relevant policy and guidelines.

5.3.11. Chapter 11: Infrastructure and Environmental Services seeks to create an environment characterised by high quality infrastructure networks and environmental services to ensure the health and wellbeing of those who live and work in the County, securing also the economic future of the County. Policies and objectives of relevance include:

- Policy IE2: Water Supply and Wastewater
- Policy IE3: Surface Water and Groundwater
- Policy IE4: Flood Risk
- Policy IE6: Electricity Infrastructure - Protect the existing electricity infrastructure and support the development of a safe, secure and reliable supply of electricity and the development of enhanced electricity networks as well as new transmission infrastructure projects subject to the relevant environmental assessments.
- IE6, Objective 2 - To support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission / distribution of a renewable energy focused generation in line with RPO 10.22.
- Policy IE7: Waste Management
- Policy IE8: Environmental Quality

5.3.12. Chapter 12 incorporates the County's development management policies and seeks to ensure that development is implemented in accordance with the policies and objectives of the County Development Plan and verified through a robust monitoring mechanism. Policies and objectives of relevance include:

- 12.3.1: Appropriate Assessment
- 12.3.2: Ecological Protection
- 12.3.3: Environmental Impact Assessment
- 12.3.4: Archaeological Heritage
- 12.3.5: Landscape Character Assessment
- 12.3.7: Protected Structures
- 12.4.1: Green Infrastructure Definition and Spatial Framework
- 12.4.2: Green Infrastructure and Development Management
- 12.5.2: Design Considerations and Statements
- 12.5.4: Public Realm

- 12.7.1: Bicycle Parking
- 12.7.5: Car Parking/EV Charging
- 12.9.2: Enterprise and Employment Areas
- 12.9.4: Space Extensive Enterprises
- 12.10.1: Energy Performance in New Buildings
- 12.10.2 Low Carbon District Heating Networks
- 12.10.3 Energy from Waste
- 12.10.4 Solar Photovoltaic
- 12.11.1 Water Management
- 12.11.3: Waste Management

South Dublin Climate Change Action Plan 2024-2029

5.3.13. The Climate Change Action Plan identifies the main climate risks facing South Dublin County and includes both the Councils' and the current levels of greenhouse gas emissions across the South Dublin County Council area. It includes four targets for the Council to reach in the coming years:

- 50% improvement in the Council's energy efficiency by 2030;
- 51% reduction in the Council's greenhouse gas (GHG) emissions by 2030;
- To make Dublin a climate resilient region, by reducing the impacts of future climate change-related events; and
- To actively engage and inform our communities on climate action.

5.4. Natural Heritage Designations

5.4.1. The nearest European sites are:

- Rye Water Valley/Carton SAC (Site Code: 001398), c. 5km to the north west.
- Glenasmole Valley SAC (Site Code 001209), c. 8.5 km to the south east.

6.0 The Appeal

6.1. Grounds of Appeal

- 6.1.1. A First Party Appeal has been submitted by Arup, for and on behalf of the Applicant, Google Ireland Limited (GIL), against the decision of South Dublin County Council (SDCC) to refuse planning permission for the proposed development. The grounds of appeal can be summarised as follows:

Reason for Refusal 1

6.1.2. Capacity in the Electricity Network

- The site benefits from an existing grid connection and connection agreement that was granted by Eirgrid on 20th of July 2021 and is sufficient to operate the full GIL campus, including DC1, DC2, and DC3 (the proposed development).
- Section 8.4.4.2 of the EIAR clearly explains the position on grid capacity. The development would be powered by an existing grid connection via the Barnakyle high voltage (HV) substation, and the development incorporates a new HV compound, also supplied by the Barnakyle substation, that would support DC3.
- Eirgrid have not been consulted and SDCC reached conclusions on grid capacity without access to the relevant information. Eirgrid, as Transmission System Operator (TSO) have confirmed through the connection agreement that it has allocated capacity within the existing system for GIL to operate the proposed development.
- Data centres operate under mandatory demand curtailment protocols requiring them to reduce electricity consumption during peak demand periods when instructed to do so by Eirgrid's National Control Centre, a protective mechanism that supports grid stability and reliability.
- Eirgrid's offer included a flexible demand arrangement where GIL is required to reduce its demand to prescribed levels when instructed to do so by Eirgrid. There are therefore protections built into the connection agreement to safeguard the grid.
- Potential effects on power supply are assessed in the EIAR, which acknowledges existing constraints on power supply in Ireland which forms the

baseline environment and the EIAR assesses potential effects in light of that constrained baseline, in accordance with legislation and guidance.

- SDCC largely concentrate on the potential for negative effects on power supply as outlined in the -pre-mitigation assessment of the EIAR and do not clarify that this scale of impact is predicted before any mitigation measures are applied.
- Independent of the fact that GIL has an existing grid connection agreement in place, following the implementation of mitigation measures outlined in the EIAR, the residual impact on power supply is predicted to be negative moderate which is deemed not significant.
- SDCC appears to have relied on this incomplete picture to reach its conclusion to refuse the application and have erred in law and fact in doing so.
- The Eirgrid Generation Capacity Statement (2023 - 2032) clarifies that demand capacity that was contracted to data centres prior to the November 2021 CRU direction on data centres is allowed for within forecasted demand figures.

6.1.3. On-Site Renewable Energy

- EDE7 Objective 2 of the CDP has been satisfied, the Applicant is maximising on-site renewable energy generation, including the provision of PV panels and facilitating district heating/heat reclamation.
- The objective does not state that 100% renewable energy must be provided. The objective is to maximise on-site energy as far as possible, and where on-site demand cannot be met in this way then there needs to be evidence of engagement with PPAs.
- The Applicant has sought to maximise on-site renewable energy generation and is willing to accept a condition requiring it to provide PV panels across the extent of all eight data centre halls without generating additional environmental effects. The proposal would also facilitate district heating.
- Further options for on-site renewables, such as wind turbines, are limited due to proximity to Baldonnell Aerodrome.
- SDCC incorrectly state that the on-site PV would generate 20% of the total required energy. To clarify, it would generate 20% of the energy needs associated with the administrative part of the building.

- The Applicant provided evidence of engagement with Power Purchase Agreements (PPA).
- SDCC concluded that the development failed to provide sufficient on-site renewable energy with little explanation or indication of what would be deemed sufficient in this context.
- Ireland's Climate Action Plan 2024 sets out a national target of 80% renewable electricity supply by 2030, along with a suite of policies and measures to help deliver this target.
- Google matches 100% of its electricity consumption of global operations with purchases of renewable energy on an annual basis. GIL would continue to apply that approach to mitigate carbon emissions generated through the Operational Phase of the development.
- Measures taken and planned by GIL on renewables would support additional renewable generation and make a material contribution to achieving the Climate Action Plan 2024 targets.

6.1.4. Engagement with Power Purchase Agreements (PPA) in Ireland

- EDE7 Objective 2 only requires evidence of engagement with PPAs, it does not mandate evidence of PPAs. The objective does not prescribe a specified target percentage of PPAs as a requirement.
- The Applicant presented evidence of PPAs in the application, demonstrating engagement with the PPA market and satisfying the criteria of the objective.
- GIL has worked extensively to identify and originate renewable projects to enter into a PPA with, including 11 different operators.
- GIL have signed a 14 year PPA with Power Capital Renewable Energy for 58 megawatts (MW) of new to the grid capacity from the now operational Tullabeg Solar Farm, through an existing grid connection. This PPA relates to the demand of the wider GIL site.
- The PPA market in Ireland is still emerging and there is a limited pipeline of renewable projects available to corporate buyers, as evidenced by market data. GIL has worked hard to develop the Irish PPA market and to support the development of clean energy resources.

- Negotiations are ongoing on various projects including Long Duration Energy Storage, Carbon Free Energy manager, and exclusivity on a c.70MW onshore windfarm, reflecting GIL's commitment to enable viable projects.
- GIL has provided evidence of engagement with PPAs, continues to search for new commercial and technically viable clean energy projects to ensure it meets its 2030 goal operate on carbon free energy at all times whilst contributing to meeting Ireland's 80% renewable target.
- The data centre sector is the biggest contributor to the deployment of renewable generation via PPA's which are a key pillar of Government policy to deliver energy and climate targets. Furthermore, efforts by corporate buyers such as GIL reduce the volume of renewable projects that must be supported by Irish electricity consumers via the Public Service Obligation in respect of Government supported projects.

6.1.5. Inclusion of District Heating Measures

- The development includes measures to facilitate district heating. The system would be completed once a suitable off-taker establishes a district heat network with sufficient heat demand. Until such time, the Applicant can only provide a connection to the site boundary, which is provided for in the application.

6.1.6. Architectural Design of the Proposed Development

- The development is consistent with surrounding estates in terms of architectural quality and massing which is connected to the building function and appropriate to the industrial context.
- The building has a maximum height of 11.2 metres and the change between the data hall and office provides sufficient volume breakdown. Generator flues bring variation and further breakdown the volume and visual impact along Baldonnel Road.
- The building is not visible from neighbouring sites/nearby roads and is hidden by landscape design features on the south part of the site.
- The building has a long façade but one never has a full view of the building which is broken down by landscape elements, acoustic screens and the generator flues. The main element visible from the residential properties on Baldonnel Road is the landscape buffer.

- GIL would accept a condition requiring it to explore measures to breakdown the volume and massing of the building through materials/colour, variation in parapet panel heights, use of colours with horizontal banding for generator flues, creating a gradient or greening of the acoustic screen.

6.1.7. Capacity within the Relevant Water, Wastewater and Electricity Network

- Uisce Éireann have confirmed that the development can be accommodated without an infrastructure upgrade.

6.1.8. Compliance with EE Zoning

- Under EE zoning, data centre use and offices over 1,000sqm are classified as 'Open for Consideration'. The proposal is for a data centre and office space of 3,169sqm.
- The Planning Report sets out compliance with the relevant policies of the CDP (Economic Development and Employment). Key principles for development within EE zone relate to access and movement, open space and landscape, green infrastructure, and built form and corporate identity. These are assessed in Section 8.1.3 of the Planning Report.
- The GIL data centre has been operational on this EE zoned land for more than 10 years.

Reason for Refusal 2

6.1.9. GIL's Site Within Context

- The site is located on an urban fringe, away from any significant riparian corridors, Primary Green Infrastructure Corridors or Secondary Green Infrastructure Links.
- The location's contribution to the broader ecological network is limited and its role is supplemental. The site will support more localised, urban edge ecological purposes. There are weak connections to the wider network.
- Surrounding conditions limit the site's green infrastructure value such as the technology park (north), municipal golf course (east), and Casement Aerodrome (south), noting that aerodromes impose wildlife restrictions and employ deterrent and dispersal techniques.

- The site's surrounding context, original condition, and limited capacity for ecological enhancement has been overlooked by SDCC in their assessment.

6.1.10. Proposed Green Infrastructure Design

- The design process showed a clear hierarchy of green infrastructure assets defined as high or low priority. Key assets include the hedgerow along Baldonnell Road which is being maintained. Hedgerows identified for removal (2 no.) are fragmented from the wider network of green infrastructure and are offset by proposed biodiversity measures.

6.1.11. Enhanced Biodiversity Measures

- Landscape design incorporates a variety of native species, creation of natural habitats, and green corridors that support local wildlife.
- A range of biodiversity and landscaping measures are proposed (Section 3.2.1 of appeal statement) including retention/strengthening of hedgerows, appropriate planting, Miyawaki Forest approach, SuDS, creation of habitats, reinstatement of allotments, use of appropriate natural/recycled/upcycled materials, and rerouting and opening up an existing stream.
- The Applicant commits to the ongoing maintenance and enhancement of the biodiversity and landscaping measures and commits to long term environmental stewardship.
- Despite the location, the aim has been to protect and enhance corridors providing pathways for wildlife to the nearest designated Green Infrastructure corridors.
- The design preserves and significantly enhances the site's green and blue assets, integrating with the existing ecological framework and incorporating nature based solutions and sustainable materials in line with the intentions of the CDP.
- SDCC were aware of the space constraints and limitations relative to the Green Space Factor applying to the site. Options were discussed with SDCC to improve the Green Space Factor (GSF). This included targeted design adjustments, application of green roofs, provision of additional land, and partnering with community groups to enhance biodiversity and green spaces. However, engagement was limited, and an alternative was not agreed. GIL

remain open to exploring and agreeing options for enhancing the site's environmental impact, biodiversity, and green spaces.

- SDCC could have permitted an element of off-site provision in close proximity to the site which would have been practical, beneficial and secured SDCC objectives but they did not pursue this.
- GIL are prepared to make amendments to landscaping and accept a condition requiring exploration of partnering with local community groups, as previously discussed with SDCC.

6.1.12. Hedgerows and Rural Character

- NCBH11 Objective 5 seeks to maintain hedgerows and trees that are above the 120m contour line. This does not apply to GIL which is at an elevation of 80-85 metres.

6.1.13. Green Space Factor (GSF)

- The GSF metric has been applied too rigidly and the approach of SDCC is misguided and impractical due to the spatial constraints of data centres.
- Spatial demands and security measures required for data centres leave little room for green spaces and access restrictions are not conducive to public green space.
- Larger data centres are more energy efficient, prevent urban sprawl, reduce the need for infrastructure/land and minimises environmental impacts. Energy efficiency should be the focus rather than the proportion of green space.
- The proposed development is the expansion of an existing facility in an already constrained space with historic low ecological quality.
- The Applicant has considered potential additional measures (Section 3.2.3 of the appeal statement) and is prepared to offer alternative site specific green infrastructure interventions or other contributions to address the shortfall in line with Section 12.4.2 of the CDP and would accept a condition to secure same.

6.1.14. In the interests of clarity, the Applicant has provided additional information to address points of detail raised in the Chief Executive's Order or where requests were recommended seeking further/additional information. Where relevant I have

addressed these submissions in my assessment. The following paragraphs are a brief summary of the main points

- 6.1.15. Proposed Office Space: Total office space of 3,169sqm comprising 925sqm of office space and 2,244sqm ancillary technical rooms and therefore falls below the major office threshold of 1,000sqm based solely on the office space. Taking it cumulatively, office development greater than 1,000sqm is open for consideration.
- 6.1.16. RU Rural Zoning: The area zoned RU relates to a small portion of land within the south east corner of the site. There would be no infrastructure development in this area which will instead provide biodiversity/landscaping/green amenity and would be maintained as RU in accordance with the CDP.
- 6.1.17. Design and Visual Impact of the proposed Development: This is addressed above under Reason for Refusal 1.
- 6.1.18. Public Realm and Placemaking: The proposal includes a new active travel thoroughfare along the eastern boundary. This includes land in Council ownership and a letter of consent has been provided but this does not change the ownership of the land.
- 6.1.19. Neighbourhood Context: The development is located in an existing business park and is in keeping with adjacent/surrounding context. RU zoned lands would remain as such. The development has been sited/arranged to minimise visual impact and to be considerate of neighbours. Significant landscaping, habitat creation, and green infrastructure would be implemented, offering visual buffers and habitats. Pedestrian and cycle links improve sustainable transport and potentially reduces traffic congestion. SuDS will double was water amenities for biodiversity and landscape improvements. While no public space is provided consideration has been given to welcoming spaces for staff amenity.
- 6.1.20. Public Art: The Applicant would commit to the provision of public art via condition.
- 6.1.21. Residential Amenity: This is partially dealt with under the response to Reason for Refusal 1 above. It is further submitted that the Landscape and Visual Impact Assessment concluded that the magnitude of change and potential effect on View 2 looking northwest towards RPS 184 would be low.

Construction and Operational Phase Traffic Management

- 6.1.22. Road Safety Audit: A Road Safety Audit was not undertaken as all works would take place within the red line and public access is strictly controlled. Roads are therefore for private use. Improvements to the pedestrian/cycle link between Profile Park Road and Grange Castle Business Park Road are minor, restricted to pedestrian and cycle use, and do not require a Road Safety Audit.
- 6.1.23. Footpath Widths and DMURS: The DMURS 1.8m minimum footpath width is a recommendation and relevant to high levels of street activity. 1.5m is the current footpath width on the GIL campus which has served well to date given the context and low activity. This is considered sufficient for the proposal and width is increased to 2m between the car park and the building to account for greater activity.
- 6.1.24. Car Parking: The CDP allows for up to 965 car parking spaces, only 42 are proposed, determined on the number of staff and applying current modal share travel patterns. This is considered to be realistic based on the evidence. Bus service improvements are welcomed but the bus is still 1.5km walking distance from the site. The site's location makes travel to work on foot or by bicycle long and inconvenient. Car parking could be reduced in future after the development is operational and based on the findings of the Mobility Management Plan Monitoring and Review.
- 6.1.25. Bicycle Parking: CDP requires 360 spaces. This is excessive considering there will be only 50 additional employs. Bicycle parking is proposed at 16 spaces which can facilitate 32% of employees and is above the mode share target for the County.
- 6.1.26. Construction Car Parking: Up to 800 workers would be on site during construction. 300 parking spaces are provided for this phase. This is sufficient given expected car sharing, use of other travel modes, implementation of the mobility plan, and turnover of spaces. Construction traffic volumes and routes would be managed, and a Construction Traffic Management Plan and CMP will be implemented.
- 6.1.27. Cross Section Drawing of Internal Roads: It wouldn't be usual for a planning application to include this, but the Applicant will accept a condition requiring agreement with the Planning Authority.
- 6.1.28. Water and Drainage: Surface water drainage layout drawings and planning report provide attenuation location and volumes. Diversion of the water course is necessary to accommodate the development as well as enabling an open and improved watercourse and avoiding culverting. Water course planting has been designed

following consultations with Inland Fisheries Ireland and a 10m setback is provided on both sides. Culverting a small section is required but other parts of the existing culvert would be opened, and the open water course would increase by 66m. The works would improve the status (WFD) of the watercourse from poor to moderate. The Applicant would accept a condition requiring engagement with the Planning Authority.

- 6.1.29. Flood Risk: The site is within zones A, B and C. Works to the watercourse take account of flood risk issues and the culvert and open stream include freeboard allowances between 300mm and 2.87m. The watercourse proposals allow the 1 in 100 year (Zone A), 1 in 100 year with 20% climate change allowance, and 1 in 1000 year (Zone B) to be contained within the watercourse banks and the development would be outside of diverted Zone A and B. The Applicant has completed a justification test and culvert design complies with OPW requirements and Section 50 consents have been issued.
- 6.1.30. Noise, Lighting, Glint and Glare: The Environmental health Department recommended conditions to restrict noise levels. It is not within the Planning Authority's jurisdiction to impose noise limits on an Industrial Emissions Licence (IEL) site. The Applicant will continue to comply with the current licence and any requirements of a revised licence. The Applicant would accept the condition requested by the Department of Defence regarding cranes during construction.
- 6.1.31. EPA Submission: The current IEL will need to be reviewed to include the proposed development, following a grant of permission.
- 6.1.32. Strategic Infrastructure Development Application: The high voltage connections being provided may be subject to a Strategic Infrastructure Development application under Section 182A of the Act. The SID case can and should be dealt with separately to the appeal.

EIAR

- 6.1.33. Alternatives: Concerns of the Planning Authority are opaque and unspecific, and it is not possible to identify with any certainty or clarity how the assessment of alternatives requires more information.

Cumulative Effects: A 3km buffer was established for projects in terms of potential cumulative effects. With a broader regional/national approach considered for some topics, such as resource/waste management and climate. A national level approach

to carbon emissions is considered robust and in line with legislation. The EPA issue emissions projections annually. This incorporates data centres and other large energy users. GIL has contracted capacity with Eirgrid and it is reasonable to assume these emissions are accounted for in the EPA projections. Other cumulative measures include the Climate Action Plan (CAP24). The SDCC CDP has been subject to SEA. The proposal is in compliance with the zoning objective. The SEA Environmental Report assessed proposed objectives and Zonings. SEA of the CDP found that effects of a development compliant with Objective 2 of EDE7 would be Neutral / Positive against the Strategic Environmental Objectives (SEOs).

- 6.1.34. Climate Effects: The EIAR provides information that meets Article 3 of the EIA Directive and sufficient information to make an assessment against Section 15 of the Climate and Low Carbon Act 2015 (as amended). Mitigation measures have been proposed (solar panels). The Google 2024 Environmental Report reaffirms commitment to net zero emissions and carbon free energy across all operations by 2030. Google purchases more clean energy annually in Europe than it consumes. EPA projections for 2050 estimates that under a With Existing Measures (WEM) scenario, future emissions from electricity generation will decrease by 57% over the period 2022-2030 and by 62% when applying With Additional Measures (WAM).
- 6.1.35. The Applicant seeks a 10 year permission, which would extend beyond 2030 at which stage the grid is expected to be 80% renewable. Electricity usage emissions factors are continuously decreasing. The conclusions set out in Section 8.6.2 of the EIAR are considered justified and robust.
- 6.1.36. The location-based approach does not factor in the contribution of GIL's existing and planned renewable PPAs and on-site renewable generation towards the emission footprint of its energy use, which would lower emissions further.

6.2. Planning Authority Response

- 6.2.1. The Planning Authority confirms its decision and advises that the issues raised in the appeal have been covered in the Chief Executive's Order.

6.3. Observations

6.3.1. Three observations have been received. These are summarised below:

6.3.2. **BKC Solicitors, for and on behalf of John Conway and Louth Environmental Group**

- EPA press release (May 2024) shows that Ireland is projected to exceed national and EU climate targets.
- Emissions are projected to be reduced by 29% compared to a target of 51%. Achieving 29% will require full implementation of a range of policies across all sectors and almost all sectors are on a trajectory to exceed emissions ceilings for 2025 and 2030.
- The first two carbon budgets (2021-2030) will not be met by between 17% and 27% and Ireland will not meet its EU Effort Sharing Regulation target of 42% reduction by 2030.
- The Commission is bound by Section 15 of the Climate Action and Low Carbon Act 2015 (as amended in 2021).
- The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy July 2022 was not assessed for the purposes of Articles 1 and 3 of Directive 2001/42/EC and should not be relied on as a framework for development of data centres.
- The Commission should consider the new Climate Action Plan 2023 which refers to the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy July 2022 which sets out the principles for sustainable data centre development.
- It is not clear how the back-up generators are to be powered.

6.3.3. **Dr Colin Doyle**

- This submission is accompanied by a report from the Stockholm Environment Institute – Frequently Asked Questions: Green Power Purchasing Claims and Greenhouse Gas Accounting.

Grid Capacity Considerations

- SDCC were entitled to consider grid aspects and capacity, which is a resource like water supply, sewage treatment etc.
- While SDCC may not have access to technical data, it is a matter of public record that grid capacity is constrained. SDCC were right to be concerned and to refuse permission,
- The development would not be a good use of available grid capacity, particularly when considering energy consumption per worker which would be hugely more intense than the general economy. This has implications for the development of other enterprises with higher employment potential.

Grid Connection Agreement

- Concerns raised regarding the nature of the grid connection agreement having regard to Eirgrid procedures.
- Connection agreements are negotiated and signed after planning consent. There is no provision to reserve capacity for a future development that does not have planning permission. It could result in capacity being reserved for a project that doesn't materialise whilst denying connections to other applicants in the meantime.
- Contracted import capacity must be ramped up within a specified period of time, standard is 18 months, not the six years proposed.
- The Board should request a copy of the Eirgrid Connection Agreement. If there is a valid agreement, then questions need to be asked of the process followed by Eirgrid and it would mean the allocation of this capacity bypassed the EIA process.

Power Purchase Agreements

- PPA's do not constitute mitigation, there are no established national guidelines and no provision in EU law or Irish climate policy for treating them as such.
- This is a complex area, the Commission would be wrong to default to an acceptance of the Applicant's claims and appropriate expertise should be sought.

- The quantity of renewable energy secured in the Applicant's PPA is very small and the 58 MW generated by the Tullabeg solar PV farm is peak output. It represents just 6% of the power consumption of the development.
- The PPA could not be claimed for the development as it is currently operating and would not count as additional renewable supply.
- The Tullabeg solar farm project would have happened anyway and there is no credible claim for renewables additionality of this PPA.
- The Applicant's appeal document is misleading and evasive on this matter.

Climate Impact Assessment

- According to the criteria in the EIAR, the climate impact should have been rated moderate or major adverse rather than minor.
- SCCC failed to identify an adverse climate impact or provide a reasoned argument against there being an adverse impact as set out in the submission and failed to comply with Section 15 of the Climate Action and Low Carbon Development Act 2015 (as amended).
- The climate methodology in the EIAR is correct but the conclusion of 'minor' impact was incorrect and unjustified.
- The scheme results in additional GHG emissions and there are no mitigation measures that would produce a corresponding reduction in GHG emissions in other parts of the state's energy system. Therefore, the climate impacts remain significant adverse.

Mitigation due to 80% Renewables on the Grid

- GIL imply that GHG impact would be mitigated when the grid target of 80% renewables by 2030 is met. The development's energy requirements would impede the achievement of this target.
- If this argument is accepted by the Commission, then all new large energy users connected to the grid would need to be treated as 80% renewable in 2030 which is irrational, unrealistic and would make a nonsense of the EIA process.
- Consent should not be given for a project that relies on future mitigation measures outside of the Applicant's control.

Further Mitigation Claims

- The additional PV panels offered by the Applicant offer negligible mitigation and the numbers provided overestimate the GHG savings.
- There is no district heating infrastructure in the vicinity of the development. Such a project would be vast and costly and more expensive than alternative technologies. The district heating proposal is speculative and will most likely not materialise.
- There is no supporting evidence that data centres contribute to carbon de-intensification and the claim is at variance with the projected increase in GHG emissions proposed. Any savings would occur predominantly outside of Ireland and would not appear in Irish carbon accounts and are of no benefit in achieving legally binding carbon budgets.
- AI has significantly higher energy consumption. The expectation is that worldwide data centre power consumption will increase rapidly, with an increase in GHG emissions. Some applications of AI would result in energy savings through efficient logistics/resource planning, operation of national grids etc, but these benefits would again be outside of Ireland.

Government Statement on the Role of Data Centres

- In terms of ‘balance’, there is no provision in Irish environmental law to permit a development to cause a severe environmental impact on the basis of a claimed good in the economy.
- There would be an economic benefit for GIL and the state, but employment benefits are poor with just 50 additional jobs created.
- There is no evidence of additional renewable electricity and, having regard to Google’s additionality definition/criteria, no projects in the pipeline that could be considered additional in terms of 2030 national targets.
- The development does not comply with the co-location or proximity with future energy supply requirement.
- The development would be powered from the national grid, there is no clear pathway for decarbonising of the data centre in the decade ahead and there is no flexibility in achieving legally binding carbon budgets.
- In terms of contingency conditions, there are no realistic conditions that could mitigate the climate impact.

- The Climate Neutral Data Centre Pact is self-regulatory and there is no mechanism within the pact to guarantee any significant mitigation of climate impacts.

6.3.4. **An Taisce**

- Development of data centres in Ireland increase overall energy demand and dilute the end benefit of renewable energy that has been created and added to the grid in recent years.
- Data centres consume more energy than all urban households in Ireland combined, and their electricity use is increasing.
- Increased emissions associated with data centres is incompatible with achieving Irelands legally binding carbon budgets and the development would further compromise the ability to achieve compliance.
- The Applicant targets net zero by 2030 however, it is also stated that it's data centres have driven a 48% increase in its overall emissions since 2023 compared with 2019, largely driven by AI which jeopardises emissions reductions.

Emissions Impact

- A rigorous assessment of emissions and the impact of energy demand on climate has not been undertaken in line with the EIA directive.
- Increased emissions have not been assessed against the legally binding commitments under the Climate Action and Low Carbon Act 2015 (as amended). An increase of 0.44% in annual national emissions is not compatible with obligations to reduce emissions and the increase of almost 0.5% in annual emissions from a single development is significant.
- No analysis of the impact of the proposed mitigation has been carried out. It is not clear how the conclusion was reached that impacts would be minor and short term.
- Long term effects should not be considered insignificant. Grid decarbonisation is ongoing and still uncertain.
- The more large energy users that materialise, the more renewable energy will be required, making achievement of the 80% target more uncertain.

Cumulative Emissions Impact

- Cumulative climate impacts need to consider other data centres as the impact of carbon emissions is not spatially bound, data centres undermine adherence to targets and needs to be considered on a macro scale and in the context of carbon budgets.
- A full cumulative assessment has not been undertaken and fails to provide a rigorous overview of the full range of in-combination effects.
- There is no cumulative assessment with the electricity sector in light of the sectoral emissions ceiling.

Power Purchase Agreements and On-Site Renewable Energy

- The PPA is for the Applicants wider operation, not just the proposed data centre.
- No data is provided to support the 60% figure. There is a lack of clarity on what the PPA intends to offset.
- It should be clarified whether the PPA accounted for the additional electricity demand of the subject proposal and whether it accounts for planned future development.
- PPAs exacerbate the issue of data centres diluting renewable penetration to the grid. Data centres with PPAs still increase the overall demand for electricity and make achieving the 80% target difficult.
- Data centre use of PPAs to purchase renewable energy simply covers new data centre demand rather than dealing with existing emissions. Unless PPAs are used for existing large energy centres, they are not contributing to decarbonisation.
- The Applicant fails to address the issue of dilution. The measures proposed do not make a material contribution to making the 80% target.

District Heating

- Further Information should be sought in terms of the feasibility of connection.
- Analysis is needed on the potential emissions impact of connecting the proposal to a district heating network.

- There is uncertainty regarding the feasibility and availability of suitable off takers, as such this should not be considered an adequate mitigation measures regarding operational phase emissions.

Climate Legal obligations

- The Commission is bound by Section 15 of the Climate Act, carbon budgets and sectoral emissions ceilings are legally binding. No assessment against these legally binding limits has been completed.
- The Commission should assess the development against these limits and the requirements of the Climate Act 2024.
- EPA projections are that Ireland will exceed its carbon budgets, there are concerns regarding introducing new energy intensive data centre facilities.
- An Taisce analysis show that Ireland's carbon budgeting is even further off-track than EPA projections, which does not factor in carry over exceedances.
- The development would risk Ireland's ability to meet carbon budget and sectoral emissions ceiling obligations.
- Participation in the EU Emissions Trading Scheme does not negate or act in place of obligations under the Climate Act.

Government Statement on Data Centres

- The Government Statement on Data Centres was never subject to Strategic Environmental Assessment per directive 2001/42/EC.
- The Statement constitutes the setting of a framework for development concerns of Annex I and II projects and because it has not been subject to SEA (or screening), it cannot be used as a framework or assessment criteria.
- The Statement falls within the ambit of the Aarhus Convention and should have been subject to public consultation.
- The Courts of Justice of the European Union have taken a broad approach to the interpretation and application of the SEA Directive.
- The Statement acknowledges the need to limit further data centre expansion in some instances.

Grid Capacity

- The proposal would put great pressure on an already strained grid.
- The Commission for the Regulation of Utilities (CRU) and EirGrid have both expressed concerns regarding data centres and implications for energy security. The CRU have warned of rolling blackouts due to data centre energy demand in grid-constrained areas.

Water

- Climate change has resulted in water scarcity risks. Low rainfall/drought results in generally warmer air temperature necessitating a higher level of cooling in data centres, despite water scarcity.
- Water consumption levels need to be assessed against up to date climate modelling and forecasting and the EIAR should evaluate potential impacts when supplies are low.
- The development should be assessed against Article 4 of the WFD.

7.0 Assessment

7.1. A significant number of matters raised in the observations and the policy background of the Planning Authority's first reason for refusal, such as grid connection and capacity, renewable energy, Corporate Power Purchase Agreements (CPPA), and grid decarbonisation would, in my opinion, be more suitably dealt with in the context of government policy and guidance regarding data centres, in order to avoid repetition and provide clarity on the matters raised.

7.2. As such, having examined the application details and all other documentation on file, including all of the submissions received in relation to the appeal, the reports of the local authority, and having inspected the site, and having regard to the relevant local/regional/national policies and guidance, I consider that the substantive issues to be considered in this appeal are as follows:

- Zoning
- National and Local Policy
- Climate, Emissions, Grid Decarbonisation
- Design and Visual Impact

- Green Infrastructure
- Transport

7.3. Zoning

- 7.3.1. Issues raised by the Planning Authority are that justification is required for the proposed office space and further consideration is required of the impacts of landscaping on the RU zoning. The majority of the site is zoned EE (Employment and Enterprise) and a small section in the south east corner is zoned RU (Rural). Having considered the proposal against the relevant zoning maps, I am satisfied that the data centre building and ancillary infrastructure is being developed entirely on lands zoned EE. Data centres and offices are both 'Open for Consideration' on EE zoned lands. With regard to offices, the zoning objective makes clear that offices in the range of 100sqm-1000sqm and offices greater than 1000sqm are also open to consideration. In that respect, I am satisfied that the proposal would be in line with the EE zoning objective.
- 7.3.2. Office provision as part of the development would equate to c. 3,169sqm which, according to the Applicant, comprises 925sqm of office space proper (including sanitation and circulation spaces) with the remaining 2,244sqm comprising ancillary technical rooms in support of data hall operations. On this basis, the Applicant considers that the office provision would fall below the 1,000sqm major office development threshold. This is relevant in the context of Policy EDE4 Objective 4 which seeks to direct people intensive enterprise and employment uses into appropriately zoned lands in close proximity to high frequency public transport.
- 7.3.3. I wouldn't necessarily agree with the Applicant that the proposed office falls below the 1,000sqm threshold as a result of the distribution/type of space being provided (technical spaces v. office proper) as the office space could always be reconfigured to shift the balance. However, I consider this to be unlikely having regard to the specialist nature and technical requirements of the proposed development. Furthermore, whilst the data centre would result in additional employment, I do not consider that it could be regarded as a people intensive use. In this respect, I am of the view that the proposed data centre and ancillary office space would be fully compliant with the EE zoning objective and that the provisions of EDE4 Objective 4 would not apply.

- 7.3.4. Lands zoned RU are limited and restricted to the south east corner of the site. In terms of the RU zoning, the stated objective is to protect and improve rural amenity and to provide for the development of agriculture. No data centre or ancillary development would take place on this land. Development of the RU lands would be limited to landscaping and enhanced biodiversity and riparian zones. I note that the provision of open space is permitted in principle in RU zoned lands and I am satisfied that the development proposal is consistent with this.

7.4. National and Local Policy and Guidance

- 7.4.1. The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy 2022 (referred to herein as the Government Statement) recognises that data centres are core digital infrastructure that play an indispensable role in Ireland's economy and society. The Government Statement acknowledges that, at least in the short term, there is only limited capacity for further data centre development in lieu of works to upgrade and improve infrastructure, connect more renewable energy, and ensure security of electricity supply. Recognising that not all data centre development can be accommodated, the Government Statement sets out the principles that will ensure that data centre development that can be accommodated will contribute positively to our climate and digital ambitions. The Government Statement signals a clear preference for data centre development that is associated with strong economic activity and employment, makes efficient use of our electricity grid and delivers renewable energy.
- 7.4.2. I note observations that the Government Statement was not subject to SEA and that, in the view of the observers, it cannot be used as a planning document. Whilst I accept that the Government Statement is not an instrument of planning policy, it does provide relevant guidance and provides a set of guiding principles for data centre development in Ireland. In terms of planning policy, I note that South Dublin County Development Plan (SDCDP) policy EDE7 relates to space intensive industries and that there are clear synergies between Objective 2 of Policy EDE7 and the Government Statement. This policy formed the basis of the Planning Authority's first reason for refusal, and I will address this where relevant in my assessment below alongside the main points of the Government Statement.

Economic Impact

- 7.4.3. The Government expresses a clear preference for data centre developments associated with strong economic activity and employment. I note that the Government Statement favours developments in regional locations, however, it also states that the totality of the Irish-based economic impact should be considered and factors such as associated total corporate employment, exports, wage levels, Irish materials/services purchased should be taken into account. EDE7 Objective 2 (h) of the SDCCDP requires a comprehensive understanding of employment once operational.
- 7.4.4. Google Ireland Limited is registered as a subsidiary to Google Inc, a major multi-national which opened its Europe, Middle East and Africa (EMEA) headquarters in Dublin in 2003 and has grown to become Google's largest operation outside of the United States, currently employing over 9,000 staff with investment in Ireland between 2018-2022 sitting at over €1.5 billion.
- 7.4.5. The increasing importance of AI is recognised, and the development has the potential to contribute to the growing and increased demand for computing power, as a result of AI. Studies undertaken by Google Inc. found that generative AI has the potential to boost Ireland's annual GDP by €40- €45 billion, amounting to an 8% increase in GDP.
- 7.4.6. In terms of employment generation, I note that whilst up to 800 jobs would be created during the construction period, there would be a low intensity of job creation in the completed development, and I accept that there would be a low headcount in proportion to the floorspace and scale of the data centre operation. However, the data centre would support GIL's existing operation in addition to other businesses and parts of the economy. As previously mentioned, GIL employ c. 9,000 people in Ireland which is significant, and consideration has to be given to the significant further indirect employment and economic benefits.
- 7.4.7. Hyperscale and colocation data centres, such as that proposed, provide key services to a range of businesses that create tens of thousands of additional jobs in Ireland and as noted by the Applicant, the ability to host data in Ireland and use Irish data centres to sell products and services is a key part of their presence here. I therefore acknowledge that companies such as GIL make a substantial contribution to the Irish economy both directly and indirectly through service provision, employment, investment etc.

7.4.8. In this respect I accept that data centres are a fundamental part of the ICT sector in Ireland, itself a major employer of up to 140,000 people with significant job growth of 40% over the last five years, and that they are therefore of strategic economic importance. The proposed data centre would enable GIL to meet increased demand in Ireland and I am satisfied that the proposal would fully accord EDE7 Objective 2 (h) and with the Government's principle of providing economic benefits as a result of the nature, scale, and co-location of the development, its support of an existing substantial employer and contributor to the economy, the substantial level of investment proposed and the creation of employment, both directly within the data centre and indirectly in other parts of the economy.

Grid Capacity and Efficiency

7.4.9. The Government Statement states a clear preference for data centre developments that make efficient use of our electricity grid, using available capacity and alleviating constraints. It is stated that data centres should engage collaboratively with the respective system operators to understand capacity availability and required grid services across geographic locations, and where connection can be facilitated, provide grid services such as to best utilise available infrastructure to the benefit all electricity customers. This is in line with the CRU Direction to the System Operators related to Data Centre grid connection processing (CRU/21/124). SDCDP Policy EDE7 Objective 2 (d) requires demonstration of sufficient capacity within the relevant water, wastewater and electricity network to accommodate the use proposed.

7.4.10. The Planning Authority refused permission partly on the basis that there is insufficient capacity in the grid. This position was supported by observers who consider the development to be an inefficient use of grid capacity when considering energy consumption per worker and that the proposal would put pressure on an already strained grid. Observations on the appeal draw attention to the fact that the Commission for the Regulation of Utilities (CRU) and EirGrid have both expressed concerns regarding data centres and implications for energy security, with the CRU warning of rolling blackouts due to data centre energy demand in grid-constrained areas.

7.4.11. As noted by the observers, the capacity constraints of the national grid are a matter of public record. The development would be powered by an existing grid connection via

the Barnakyle high voltage (HV) substation, and the development incorporates a new HV compound, also supplied by the Barnakyle substation, that would support the proposed data centre. As such, the site benefits from an existing grid connection and connection agreement that was granted by Eirgrid on the 20th July 2021. The grid connection agreement entitles GIL to import up to 130MVA which is sufficient to power both of the existing data centres and the proposed facility. On that basis, GIL has contracted capacity, and the Applicant argues that the Transmission System Operator, in this case Eirgrid, has already confirmed, through granting the connection agreement, that it has allocated capacity to support this demand.

- 7.4.12. Whilst I note that the CRU issued a direction to EirGrid as TSO and ESNB as DSO to consider specific assessment criteria when considering data centre grid connection applications, I would note that the Applicant's connection agreement predates this and as such the criteria for new connections would not apply. Indeed, the Eirgrid Generation Capacity Statement (2023 - 2032) clarifies that demand capacity that was contracted to data centres prior to the November 2021 CRU direction on data centres is allowed for within forecasted demand figures.
- 7.4.13. The Applicant contends that Eirgrid were not consulted on the planning application and that the Planning Authority reached their conclusions without access to the relevant information. In the context of the existing connection agreement, I would agree with the Applicant on this matter and logically, by granting the connection agreement, Eirgrid determined that there was sufficient capacity to support the contracted demand. A significant number of concerns raised in the observations relate to the process of securing an Eirgrid connection and express concerns that Eirgrid procedures were not followed. Clearly, this is a matter for Eirgrid and is outside the scope of the appeal. Capacity on the grid is a matter for Eirgrid as TSO, and it is not within the remit of the Commission to determine whether there is sufficient capacity on the national grid or to review the procedures behind the connection agreement process.
- 7.4.14. In terms of efficiency, I note that the connection agreement is subject to a 'flexible demand arrangement' whereby GIL is required to reduce its demand to prescribed levels when instructed to do so by Eirgrid as TSO, and as such I am satisfied that there are protections and safeguards built into the connection agreement to ensure grid efficiency and reliability. Having regard to the existing grid connection and the Eirgrid

connection agreement, I am satisfied that contracted demand capacity has been allocated for the development and that this demand has been allowed for within forecasted demand figures. I am therefore satisfied that the development would be in accordance with the Government Statement and would comply with SDCCP EDE7 Objective 2 (d).

Renewables Additionality

- 7.4.15. There is a preference for data centre developments that can demonstrate the additionality of their renewable energy use in Ireland. It is stated that 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. SDCCP Policy EDE7 Objective 2 (c) seeks to maximise on site renewable energy generation to ensure as far as possible 100% powered by renewable energy, where on site demand cannot be met in this way, the policy requires evidence of engagement with power purchase agreements in Ireland (PPA).
- 7.4.16. Part of the Planning Authority's first reason for refusal was in reference to the lack of significant on-site renewable generation (below 100%). Observations on the appeal state that there is no evidence of additional renewable energy and that energy generating schemes that are already in operation or schemes that would have happened anyway cannot be considered as additional in terms of renewables (such as the Tullabeg Solar Farm).
- 7.4.17. The Government Statement does not provide a definition/criterion for what counts as additional renewables, but it does state that additionality can be achieved through new generation, repowering or otherwise increasing in-country renewable energy capacity. I am therefore satisfied that new to the grid renewable energy generation that reduces demand on the national grid would count as additionality and in my opinion, this is further supported by the CRU Direction, albeit noting that the Applicant's connection agreement predates the CRU Direction and the need to comply with the listed criteria.
- 7.4.18. In terms of renewables, the Applicant is providing PV panels that would be capable of meeting 20% of the energy needs of the FSA building and they have indicated that they would be willing to accept a condition requiring PV panels across all eight data halls in DC3, noting that the additional PVs would not generate any additional

environmental effects further to those set out in the EIAR. The development would also facilitate district heating, subject to a suitable off-taker being established.

- 7.4.19. Part of the Planning Authority's concerns was that the measures identified would not meet 100% of the needs. The Applicant rightly asserts that the objective does not mandate 100% provision but rather seeks to ensure as far as possible 100% power by renewable energy. In my mind, the measures proposed by the Applicant are rather tokenistic when considering the clear aspirations of the policy and the Government Statement, however, the policy further states that in those cases where 100% provision is not possible, then the Applicant should provide evidence of engagement with Power Purchase Agreements (PPA/CPPA).
- 7.4.20. The Government Statement recognises that CPPAs have a role to play in decarbonising the electricity sector and ensuring that demand growth from large energy users, such as data centres, reduces the cost of reaching renewable energy targets. Data centre operators purchasing CPPAs that add additional renewables, and use our electricity grid efficiently, can play a positive role in Ireland's renewable energy transformation.
- 7.4.21. The appeal submission details that GIL has worked extensively to identify and originate renewable energy projects. To this end, GIL have already entered into a CPPA by signing a 14 year agreement (with option to extend) with Power Capital Renewable Energy for 58MW of new to the grid capacity from the now operational Tullabeg Solar Farm. I would note that the solar farm was not in operation at the time of the application.
- 7.4.22. I note concerns raised in the observations that unless CPPAs are used for existing large energy users then they are not contributing to decarbonisation. Conversely, other observations raise issue regarding the fact that the CPPA relates to the wider GIL operation as opposed to just DC3.
- 7.4.23. Clearly there are benefits to providing a CPPA would power 60% of the wider GIL campus. It is clear that the Applicant has comprehensively engaged with CPPAs and I consider it to be beneficial that a CPPA has been signed prior to permission being granted as well as being beneficial in the sense that it would work towards offsetting the wider GIL operation. That being said, the aspirations of the policy and the Government Statement are clearly for a more comprehensive renewable provision

than that secured on site and under the current CPPA. In my mind, the negotiation of CPPAs is not an exhaustive process and the Applicant has made it clear that they continue to search for new commercially and technically viable clean energy projects. In this respect the Applicant indicates that negotiations are ongoing on various projects including:

- Long Duration Energy Storage.
- Delivery of Ireland's first 'Carbon Free Energy Manager' which is an energy supply agreement guaranteeing a level of round the clock carbon free energy supply through new energy resources on the grid.
- Exclusivity on a c.70MW onshore windfarm which is currently at planning stage.

7.4.24. There are clear and significant economic benefits arising from the scheme as well as a pressing need to balance new data centre development against grid decarbonisation. In this respect, I acknowledge the efforts of GIL in working to enable viable renewable projects and that negotiations are ongoing on several projects. Having regard to the ongoing negotiations and the fact that the Applicant is applying for a ten year permission, which will allow adequate time for further negotiation and development, I am of the opinion that a condition should be imposed requiring GIL to enter into a further CPPA(s) prior to the commencement of development, to secure new to the grid renewable energy that meets the energy requirements of DC3. With such a condition in place, I am of the view that the development would fully align with the requirements of the Government Statement in addition to the requirements of SDCDP policy EDE7 Objective 2 (c).

Co-Location or Proximity with Future Proof Energy Supply

7.4.25. There is a preference for data centre developments in locations where there is the potential to co-locate a renewable generation facility or advanced storage with the data centre, supported by a CPPA, private wire or other arrangement. The Government also encourages the co-location of downstream value-adding activities that can make use of carbon, excess heat and other outputs from the data centre activity, such as for horticultural activities or district heating schemes.

7.4.26. Observations on the appeal state that the development does not comply with the co-location or proximity with future energy supply requirement of the Government

Statement. I accept that there are site constraints to the provision of co-location of renewable energy supply, including the adjacent homes south of Baldonnell Road and the location of Casement Aerodrome to the south east. The scheme does however make provision for district heating, subject to a suitable off-taker being established. Although I acknowledge that there is no current district heating network to connect to, the onsite infrastructure can be provided to the connection point on the site boundary and safeguarded for future development if and when a suitable off-taker is established.

Decarbonised Data Centres By Design

- 7.4.27. There is a preference for data centres that can demonstrate a clear pathway to decarbonisation and ultimately provide net zero data services. It is expected that data centres will align with the EU Climate Neutral Data Centre Pact energy efficiency and water use targets and set themselves targets to achieve zero-carbon electricity use at all hours.
- 7.4.28. I note that Google matches 100% of its electricity consumption of global operations with purchases of renewable energy on an annual basis and that GIL would continue to apply that approach to mitigate carbon emissions generated by the development and would continue to work towards Google's aim of achieving net zero emissions by 2030. Whilst this is of limited relevance in the site specific context, it does in my mind demonstrate a willingness, motivation, and commitment on behalf of the Applicant to decarbonise.
- 7.4.29. I also note that the development would align with the EU Climate Neutral Data Centre Pact (CNDCP) energy efficiency and water use targets and would work to achieve zero carbon electricity in the future. GIL is certified under the CNDCP (as verified by Bureau Veritas). Further measures have been employed and embedded in the design and fabric of the buildings to ensure resource efficiency and sustainability, and full details are provided in the Energy Efficiency and Climate Change Adaptation Design Statement. I note that construction would be in line with the current best practice in relation to energy efficiency, decarbonisation and sustainability. As previously mentioned, solar panels are provided, district heating is safeguarded, a PPA has been entered into for renewable energy, and there is potential for the backup generators to run on HVO.

SME Access and Community Benefits

7.4.30. There is 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. I am satisfied that the proposal would align with this objective. Substantial employment would be provided during the construction phase, and the operational development would support increased employment on site as well as enhancing GIL's ability to provide services to businesses across the country.

7.5. Climate, Emissions, and Grid Decarbonisation

7.5.1. The Planner's Report states that the development would not be likely to lead to a sufficient reduction in greenhouse gas emissions and that it would fail to comply with EDE1 Objective 6 in this regard. Observations on the appeal raise a significant number of issues in the context of climate and emissions, noting that Ireland is set to exceed legally binding emissions ceilings for 2025 and 2030, that no assessment against legally binding emissions ceilings has taken place, and that the proposal would fail to comply with the Climate Act. It is stated that Participation in the EU Emissions Trading Scheme does not negate or act in place of obligations under the Climate Act.

7.5.2. It is submitted that achievement of the 80% renewables target will become increasingly difficult with an increasing number of large energy users, and that the energy requirements of the scheme would impede the achievement of the 80% target. It is argued that the Applicant is relying on mitigation (grid decarbonisation) that is outside of their control and that CPPAs cannot be relied on as mitigation as they dilute renewable penetration to the grid, as data centres with CPPAs still increase overall energy demands. Overall, it is submitted that the proposal is not in accordance with Section 15 of the Climate Act.

7.5.3. At the outset I would acknowledge that it is generally accepted that Ireland is set to exceed emissions ceilings for 2030 and that the achievement of 80% renewables by 2030 is also unlikely. Section 15 of the Climate Action and Low Carbon Development (Amendment) Act 2021 requires relevant bodies to perform their functions 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.”.

7.5.4. The issue of climate (and emissions) is considered in detail in Chapter 8 of the EIAR as well as being assessed in detail in my EIA below. It is clear from the EIAR that the assessment considered the relevant climate plans and strategies as required under Section 15. At the time the application was made to South Dublin County Council, the relevant Climate Action Plan was CAP24. This was also the case on submission of the appeal. CAP24 has now been updated by CAP25 which I have considered in my assessment.

7.5.5. Sectoral emissions ceilings are based on EU targets and guidelines. In the EU, emissions from energy intensive industries/operations are controlled under the Emissions Trading Scheme (ETS) which sets a cap on total emissions. Notably, this cap reduces each year in order to secure a fall in emissions. Sectors outside of the ETS are controlled via the Effort Sharing Regulation (ESR). By 2030, Ireland is required to reduce non ETS emissions by 42% against 2005 levels. The Climate Action Plan requires overall reductions of 51% by 2030. I am satisfied that the Applicant has given due consideration to both the EU requirements and the provisions of the Climate Act

7.5.6. The EPA is responsible for developing, preparing and publishing annual projections of greenhouse gas emissions for Ireland in line with EU guidelines and reporting obligations. The Eirgrid Ten-Year Generation Capacity Statement (2023-2032) is used to calculate projected emissions from the electricity sector.

7.5.7. As previously mentioned, the Applicant benefits from an existing fixed grid connection and connection agreement signed with Eirgrid in 2021. This connection agreement entitles GIL to import up to 130MVA which is sufficient to meet the energy demands of the existing and proposed data centres. On that basis, GIL has contracted capacity which has been allocated and accounted for. The Eirgrid Generation Capacity Statement (2023 - 2032) clarifies that demand capacity that was contracted to data centres prior to the November 2021 CRU direction is included within forecasted

demand figures. On that basis, it is my view that the energy demands of the development have already been accounted for in national projections, as set out above. I am therefore satisfied that the proposal does not account for new demand.

- 7.5.8. A number of mitigation measures are proposed that seek to mitigate GHG emissions and assist in the decarbonisation of the grid. These measures include the provision of PV panels and the signing of a CPPA for new to the grid renewable energy, albeit this scheme is now recently operational. I have addressed these matters in detail previously.
- 7.5.9. Part of the Applicant's case on this matter relies on the assumption that renewables will account for 80% of energy on the national grid by 2030 in compliance with CAP24. The Applicant's EIAR, based on information from the EPA at the time of drafting, considered that the 80% target was fully achievable. It is now generally accepted that the 80% target is unlikely to be met by 2030. As such, the Applicant's assumptions are misplaced and, in that regard, I would somewhat agree with the observers that there was a degree of reliance on mitigation that was largely outside of the Applicant's control (i.e national efforts towards grid decarbonisation), albeit clearly a timing issue as opposed to a matter of principle. The Applicant therefore cannot place such significant weight on an 80% renewable share on the grid as part of the mitigation strategy.
- 7.5.10. Government guidance acknowledges that CPPAs have a role to play in decarbonising the electricity sector and ensuring demand growth from large energy users, such as data centres, reduces the cost of reaching renewable energy targets. The Applicant has signed a CPPA for 58MW of renewable energy and this is built into the proposal. Notwithstanding, I do not consider the act of negotiating and signing a CPPA to be an exhaustive process and there are no indications to such in national or local guidance and policy. Furthermore, I am of the opinion that securing new to the grid power generation under a CPPA would count as additionality and would not dilute renewable penetration to the grid. The CPPA signed by the Applicant would allow the wider GIL operation to reach 60% carbon free energy. Clearly this secures a reduction in carbon emissions associated with the development and the CPPA has assisted in bringing renewable generation to the grid. The Applicant has indicated in their submission that they are in the process of negotiating further planned CPPA(s). As such, I am of the view that it is entirely appropriate, relevant and reasonable to impose a condition

requiring the Applicant to enter into a further CPPA(s) that would meet the energy needs of the development. I consider it appropriate that the CPPA(s) should come into effect prior to the operation of the development and that it should secure new to the grid energy that would meet the average demand of the proposed development. Given that a ten year permission is sought, I consider that there is sufficient time to allow for negotiation and planning. Furthermore, during this time, efforts towards grid decarbonisation, increased renewable share, and reduced emissions in line with CAP25 would continue.

7.5.11. Government guidelines seek to strike a balance between new data centre development and infrastructure improvements to the grid to enable increased renewables and reduced emissions in line with the Climate Act. This recognises the strategic importance of data centres to the Irish economy and the aims of digital transformation. In summary, having regard to the connection agreement signed in 2021, I am satisfied that the energy requirements of the proposed development have been factored into EPA projections and that the development does not constitute new demand. I am also satisfied that the mitigation embedded in the development, in addition to that secured by conditions, particularly with regards to CPPAs, would serve to reduce the energy demands of the development whilst contributing to decarbonisation of the grid. It is therefore my view that the development would comply with both national and local policy, would not hinder efforts to satisfy the requirements of CAP 25 and the provisions of the Climate Act, and would not be an impediment to achieving net zero.

7.6. Design and Visual Impact

- 7.6.1. Concerns were raised by the Planning Authority in terms of the design of the buildings and how they relate to their surroundings. This issue formed part of the first reason for refusal. The Planner's Report provides elaboration in the context of Policy EDE7 Objective 2 (g) which requires a high-quality design approach to buildings to reduce massing and visual impact. Further criteria are given in Table 12.27 of the SDCC CDP which sets out key principles for development within Enterprise and Employment zones.
- 7.6.2. The Planning Authority consider that the scheme fails to secure a high quality design approach due to the buildings providing long facades which are unbroken in terms of

massing, with little detail or architectural expression. Part of the concern stems from the fact that the Planning Authority consider this to be a transitional zone between EE and RU lands to the south. It is argued that design measures could be employed to reduce massing and improve the appearance /design quality of the building.

- 7.6.3. The Applicant considers the building to be consistent with surrounding development and the industrial context and considers that there is sufficient variation and breakdown of volume along Baldonnel Road, noting that the building is not visible from neighbouring sites/nearby roads and is hidden by landscape design features on the southern part of the site.
- 7.6.4. The mechanical yards would be located centrally within the site, on either side of existing DC1. As such, the elements of the proposal that have the most potential to be visible from surrounding areas are the data centre/FSA building and the electrical yards, both of which would be located on the southern section of the site facing Baldonnel Road.
- 7.6.5. The southern boundary along Baldonnel Road is lined with dense vegetation (hedgerows and trees). At the time of my site inspection, it was clear that views into the site from this stretch of road and visibility of the existing data centres is very limited. Views from the site are broadly possible on approaches from the east and west where a wider view of the business park is possible.
- 7.6.6. The data centre, incorporating the FSA building, would be approximately 345m in length, 82.9m in depth and 11.2 m in height, reducing to c. 8m at the FSA building. Undoubtedly this is a large building by any measure. However, I note that the height of the data centre itself is fairly limited at 11.2m and that this would reduce to 8m for the FSA building. Importantly, the data centre/FSA building is set back from the southern Baldonnel Road boundary by c. 84.8m at its closest point and 115m at its most generous. In my opinion, the height of 11.2m with a separation distance of at least 84 metres taken together with the existing vegetation and proposed landscaping is such that the building would not be highly visible from the south and I agree with the Applicant that full views of the length of the building would not generally be possible. Whilst the building would be visible from the east and west approaches, this would be limited to the ends of the building which are 82.9 metres in depth and would be viewed

in the wider business park context where buildings of that scale, mass and appearance are not out of the ordinary or, in my opinion visually harmful in the broader context.

- 7.6.7. I acknowledge that the electrical yard would be closer to Baldonnell Road and that this would match the length of the data centre building. However, with the exception of the flues, the electrical yard is much smaller in scale. There would be a total of 36 flues on this stretch of the building. The bulk of each flue would be c.15m in height but the flue caps, which are much narrower than the flue structure itself, would take the total height to c. 16.45m. Each flue is an individual stack but provided in groups of four or five (and one group of two), with separation between the groups ranging from between c. 9m to 19.5m. The flues are separated from Baldonnell Road by between 36m and 79m.
- 7.6.8. In my opinion, the flues successfully break up the mass of the building and provide sufficient variation to counter any perception of bulk. I note they are taller than the data centre, but they are not a solid mass. Given the gaps between each individual flue and larger gaps between the groups of flues, together with the separation distance and the screening previously mentioned, I do not consider that the flues would have any significant visual impact.
- 7.6.9. Whilst I note the Planning Authority's views regarding design quality, I am cognisant of the nature and use of the proposed building and ancillary installations as well as its location within an established business park campus. Although I acknowledge the scale of the buildings, I consider them to be appropriate within their context. There are limited design interventions for such large industrial buildings and whilst I note the Planning Authority's view that further measures could be taken, whilst I do not consider this to be entirely necessary for the reasons set out previously, I note the Applicant's willingness to accept a condition to investigate such measures.
- 7.6.10. As set out above, despite its size, the building would have limited visibility from more sensitive areas and boundaries closest to the site. The siting of the buildings in relation to the boundaries and the nature of those boundaries in terms of existing screening (and proposed landscaping) is such that the mass of the building would not be visible in its entirety. On occasions where it is visible, it would be viewed in the wider context of the business park. In conclusion, I am satisfied that the building is of an acceptable design, that it is appropriate to its surroundings, and that there would be limited

impacts on visual amenity. This matter is addressed in further detail in my EIA section below, specifically EIAR Chapter 15 (Landscape and Visual).

7.7. Green Infrastructure

- 7.7.1. Green infrastructure forms the basis of the second reason for refusal and stems from the report of the Parks and Public Realm Section who raise concerns regarding the works to the stream, loss of hedgerows and the failure to comply with Green Space Factor score requirements.
- 7.7.2. The site is peri-urban and located at a transitional area between Employment and Enterprise zoned lands and rural zoned lands. The perimeter of the site, particularly along its southern edge comprises dense hedgerows and planting. This extends into the site at two narrow linear green corridors of vegetation extending north from Baldonnell Road with the easternmost corridor including an open drain/stream which is culverted at Baldonnell Road and again to the north as it passes under DC1.
- 7.7.3. These would be removed to facilitate the development, and the watercourse would be culverted and rerouted to the east where it would emerge as an open water course flowing to the north. The Planning Authority's concerns are related to the loss these areas which they consider to be major green infrastructure corridors.
- 7.7.4. During my site inspection I observed the stream to be in poor condition with significant amounts of detritus and litter and of relatively limited ecological value in its present form/state, although I acknowledge that the hedgerows and trees bounding the stream are of more beneficial value. The majority of the site to the south of the existing data centres is hardcore or open grassland and in my opinion it is of limited ecological value. I would disagree with the Planning Authority that the green areas extending north through the site would constitute a major green infrastructure corridor. Whilst they extend from the corridor running along Baldonnell Road, they are fragmented and do not offer any meaningful connection north of the site, particularly given their form, condition and the immediate surrounding context. Their contribution to the wider green infrastructure network is therefore extremely limited in my opinion.
- 7.7.5. Section 12.4.2 of the SDCDP states that development should seek to enhance or restore features that act as ecological corridors, particularly water features, hedgerows, tree lines, and areas of un-cultivated land. These, or some element of them, should be incorporated into the proposed development to create pathways for

wildlife and / or increase amenity value, and additionally where possible, no net loss of existing trees / hedgerows on site.

- 7.7.6. As previously stated, the existing watercourse on the site is a combination of culverted sections and open sections. The proposal seeks to reroute the watercourse to the east to enable development, and this would require a culverted section before the stream emerges into an open section as it runs north along the eastern boundary. There would be a net increase in the amount of open water course in addition to a net increase in the proportion of open watercourse. Furthermore, the proposals would see a significant improvement in the riparian environment. Having considered matters in more detail under Chapter 11 (Biodiversity) and Chapter 12 (Water) of the EIAR, I am satisfied that the proposed works would be acceptable and would offer opportunities to enhance ecological corridors.
- 7.7.7. A comprehensive scheme of landscaping is also proposed as part of the development. This includes the retention of key ecological features and assets along Bladonnel Road which would be supplemented by additional planting. Landscaping would be provided across the site but from the plans submitted key areas would include the land to the west of DC3, Land to the east of DC3 (within the RU zoning) where the rerouted watercourse would emerge, and land to the north. These areas feature a range of interventions including grasslands, native woodland planting, buffer hedgerows and suitable riparian planting. In my opinion on these would offer a range of habitats and biodiversity/ecological gain that sufficiently compensates for the loss of the two existing green corridors. The newly landscaped areas would offer a more meaningful contribution to the wider green infrastructure network.
- 7.7.8. Part of the Planning Authority's reason for refusal relates to the failure to achieve the Green Space Factor Score of 0.5. In its currently proposed format the development would achieve a Green Space Factor of 0.26 and the Applicant acknowledges the limitations inherent in the site constraints in terms of achieving the full score. It is stated that options were discussed with the Planning Authority that sought to improve the Green Space Factor. This included targeted design adjustments, application of green roofs, provision of additional land, and partnering with community groups to enhance biodiversity and green spaces. This was not pursued, and both the Applicant and Planning Authority are silent on the reasons why. However, the Applicant has stated that they are to make amendments to the proposed landscaping and accept a

condition requiring exploration of partnering with local community groups, as previously discussed with the Planning Authority. In the context of the wider scheme and the benefits of making efficient use of the site in terms of co-location or a space intensive use as well as the positive aspects of the proposed landscaping regime, I am satisfied that this matter can be resolved by condition.

7.8. Transport

- 7.8.1. The Planning Authority state that the development fails to comply with the access and movement criteria of the Key Principles for Development within Enterprise and Employment Zones (Table 12.27 of the SDCC CDP) due to footpaths measuring 1.5m in width which does not comply with DMURS footpath standards.
- 7.8.2. The Applicant argues that the DMURS 1.8m minimum footpath width is a recommendation and relevant to high levels of street activity. It is stated that 1.5m is the current footpath width on the GIL campus which is appropriate given the context and low activity and that this is increased to 2m between the car park and the building to account for greater activity.
- 7.8.3. I find that the footpath widths being provided are acceptable on balance. The footpaths in question are internal to the secured site and not public footpaths. Use of the footpaths would be limited to GIL personnel and as such I agree that there would be a low intensity of use and note that wider footpaths are provide where a greater intensity of use is anticipated.

8.0 Environmental Impact Assessment (EIA)

8.1. Statutory Provisions

- 8.1.1. This section sets out the EIA of the proposed project and should be read in conjunction with both the planning and appropriate assessment sections of this report. The proposal is for data centre development on an existing business park campus on the outskirts of Dublin on a site measuring approximately 20.4 hectares.
- 8.1.2. Item 10 (Infrastructure projects) to Part 2 of Schedule 5 of the Planning & Development Regulations, 2001 (as amended) and section 172 (1)(a) of the Planning & Development Act, 2000 (as amended) provide that EIA is required for infrastructure projects that involve:

- (b)(iv) urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

8.1.3. The proposal is an urban development project in a business district. The gross site area is 20.4 hectares which is above the relevant threshold and as such a mandatory EIAR is required. The Applicant has submitted an EIAR on this basis.

8.2. **EIA Structure**

8.2.1. This section of the report comprises the Environmental Impact Assessment (EIA) of the proposed development in accordance with the 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 Commission, the reasoned conclusions of the Commission and the integration of the reasoned conclusion into the decision of the Commission, and
- b) includes an examination, analysis and evaluation, by the Commission, 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.

8.2.2. 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.

8.2.3. The assessment provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Commission's decision, should they agree with the recommendation made.

8.3. Issues raised in respect of EIA

8.3.1. The Planning Authority were generally satisfied with the EIAR but consider that the cumulative impacts of the interactions should be reviewed and reassessed once the scheme has been amended to satisfy EDE7 Objectives 2 and 3, including further assessment of cumulative impacts of data centres permitted close to the site and further consideration of visual impacts.

8.3.2. Observations made on the appeal raised the following issues:

- According to the criteria in the EIAR, climate impacts should have been rated moderate or major adverse rather than minor. The climate methodology in the EIAR is correct but the conclusion of 'minor' impact was incorrect and unjustified.
- An assessment of emissions and impact of energy demand on climate has not been undertaken in line with the EIA Directive.
- Insufficient assessment and reporting of climate matters and mitigation in the EIAR.
- Failure to comply with Section 15 of the Climate Act.
- Grid connection agreement and compliance with Eirgrid procedures.

- Water consumption levels need to be assessed against up to date climate modelling and forecasting and the EIAR should evaluate potential impacts when supplies are low.
- Compliance with the Water Framework Directive.

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

8.4.1. In the table below, I assess the compliance of the submitted EIAR with the requirements of article 94 and schedule 6 (paragraphs 1 and 2) of the Planning & Development Regulations, 2001 (as amended).

8.4.2. **Compliance with the Requirements of Article 94 and Schedule 6 of the Planning Regulations**

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
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)).
The proposed development is comprehensively described in Chapter 4 of the EIAR. Chapter 4 includes a detailed description of the development site including its location, site characteristics and the existing GIL infrastructure. Section 4.4 provides a detailed and specific description of the proposed works, covering site utilities and infrastructure, such as electricity, water supply, drainage, firewater retention, fire suppression, fuel, telecommunications, waste, CCTV, and lighting. 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. A full description of the buildings is given, in addition to roads, site access, and parking. Full details of the construction programme and construction activities are set out in Chapter 5 of the EIAR. This chapter sets out the general construction strategy, detailed construction works and programme, construction traffic management, and construction environmental management. Construction works are anticipated to take 27 months and construction mitigation and monitoring is set out in the relevant technical chapters of the EIAR. Potential impacts and mitigation measures have been identified at all stages and are covered in detail in the relevant technical chapters of the EIAR. A description of potential cumulative effects is provided in Chapter 19 and further addressed in each technical chapter where relevant. Overall, I am satisfied that adequate detail has been provided to enable a decision to be taken on the proposal.

A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b)).
An assessment of the likely significant direct and indirect effects of the proposed development has been carried out for each of the specialist technical chapters (chapters 6-19). Cumulative effects for each of the environmental parameters are discussed in further detail in Chapter 19 alongside potential environmental interactions. A summary of residual effects is provided in Chapter 21. I am generally satisfied that an appropriately robust and comprehensive assessment of likely significant effects has been undertaken and that this allows a decision to be made on the proposed development with regards to environmental impacts.
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)).
Mitigation and other measures designed to address potential adverse impacts, and significant effects are outlined in detail in each of the technical chapters. This includes site specific mitigation measures, mitigation measures that are designed into the development and standard best practice measures.
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)).
Alternatives considered are set out in Chapter 3 of the EIAR. No alternative sites were considered for the following reasons: • The site is owned by GIL and development can avail of provisions, services and equipment already available onsite, with a sustainable approach in mind. • The site is adjacent to the existing Google Data Centres DC1 and DC2 and provides an opportunity for an extended and co-ordinated data centre campus optimising connections to services and reducing travelling for employees already present on site that may work across the three DC buildings; • The site is located on land zoned for enterprise and employment uses; • The wider area has other data centres and has good network provision and fibre suppliers that meet the needs of the site, making the location ideal; and • Adequate power supply is provided by Eirgrid. A total of 13 alternative options for the proposed development on the specific site were considered, looking at alternative design/building layouts taking into account site constraints and environmental effects. Option 13 was pursued by the Applicant and forms the basis of the application/appeal. This was the preferred option in terms of environmental effects, functionality and construction. It is stated that this option

minimises potential visual and noise effects to sensitive receptors whilst accomplishing the objectives of the development.

In terms of a 'Do Nothing' approach, whilst this scenario has been assessed under the relevant technical chapters, the EIAR notes that in the absence of the development, the direct and indirect employment opportunities would not arise, and this scenario would limit the data centre capacity required to power the cloud and the digital revolution that is transforming all sectors of the economy.

I am satisfied, therefore, that the Applicant has studied reasonable alternatives in assessing the proposed development and that they have outlined the main reasons for opting for the current proposal before the Commission, and in doing so the Applicant 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 receiving environment and relevant baseline where relevant is included at the outset of each of the technical chapters. As set out above, a 'Do Nothing' scenario has been assessed under the relevant technical chapters, the EIAR notes that in the absence of the development, the direct and indirect employment opportunities would not arise, and this scenario would limit the data centre capacity required to power the cloud and the digital revolution that is transforming all sectors of the economy. Where a 'Do Nothing' scenario has been considered I will address this in the relevant technical assessment.

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.

Details of the methodology used in undertaking the EIAR, including the forecasting methods, are set out in each of the specialist technical chapters assessing the environmental effects. Where difficulties have been encountered in compiling relevant information/undertaking assessments the Applicant has reported this in each technical chapter, including limitations and assumptions. No significant difficulty was encountered in reporting or compiling the information. I am satisfied that the forecasting methods overall are adequate in respect of likely effects.

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 issue is specifically dealt with in Chapter 18 – Major Accidents and Disasters and in Chapter 10 – Population and Human Health. Having regard to the location and zoning of the site, and the commercial nature of the proposed development, I

am satisfied that there are not likely to be any significant effects of the project deriving from major accidents and/or disasters.
Article 94 (c) A summary of the information in non-technical language.
Volume 1 of the EIAR refers to a Non-Technical Summary. I have considered this in full, and I am of the view that it is suitably concise, robust and written in non-technical and accessible language that can be considered and understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report.
Sources and references used to inform the description and assessment of potential environmental impacts are set out at the end of each chapter.
Article 94 (e) A list of the experts who contributed to the preparation of the report.
A list of the various experts who contributed to the report is set out in Appendix 1.1 of the EIAR. I am satisfied that the EIAR has been prepared by experts with competency in the technical subject areas.

Consultations

- 8.4.3. 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 statutory bodies and third parties and are considered in this report, in advance of decision making.
- 8.4.4. I am satisfied, therefore, that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development in advance of decision making.

Compliance

- 8.4.5. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and the associated supplementary information provided with this by the Applicant, is sufficient to comply with Article 94 of the Planning & Development Regulations, 2001 (as amended). Matters of detail are considered in my assessment of likely significant effects below.

8.5. Assessment of Likely Significant Effects

8.5.1. 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.
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

8.5.2. 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
- Context
- Baseline
- Potential Effects
- Mitigation
- Residual Effects
- Analysis, Evaluation, and Assessment: Direct and Indirect Effects
- Conclusion: Direct and Indirect Effects

8.6. **Traffic and Transportation**

Issues Raised

8.6.1. No traffic and transportation issues have been raised by any parties to the appeal in the context of the EIAR.

Context

- 8.6.2. Chapter 6 of the EIAR addresses traffic and transportation matters. Construction phase effects are associated with activities such as construction staff and construction vehicle traffic trip generation and trip distribution. Operational phase effects are associated with private vehicle and heavy goods vehicle traffic trip generation and distribution. A detailed methodology is set out at Section 6.2 of the EIAR, including an assessment of relevant guidance.
- 8.6.3. The assessment methodology is in line with TII guidelines. A baseline review has been carried out to develop an understanding of the existing traffic conditions with future year scenarios modelled for 2025 (peak construction), 2027 (opening year), 2032 and 2037.
- 8.6.4. Potential traffic effects associated with the operation of the development have been determined based on the expected trip generation of the facility. Trip generation has been calculated for the weekday AM and PM network peak hour period. Potential effects on the surrounding road network have been assessed on the basis of an initial link flow analysis which determines the percentage increase in traffic volume created as a result of the operation of the development. A key threshold is when “traffic to and from the development exceeds 5% of the traffic flow on the adjoining road” and so this threshold is used as a means to determine if a full junction analysis is conducted for a specific junction on the network.
- 8.6.5. Junction analysis has been conducted through the use of Junctions-9 software for priority junctions, and LinSig 3 for signalised junctions. If the Ratio of Flow to Capacity (RFC) for a priority junction or Degree of Saturation (DoS) for a signalised junction reached 90%, the junction was deemed to be over capacity. Junctions performing over capacity as a result of the development were deemed to be a potential significant effect. Those remaining within capacity were deemed not significant’.

Baseline

- 8.6.6. The assessment study area is defined the local road network surrounding the site. This consists of the R134 New Nangor Road (two way single carriageway), R136 Grange Castle Road (two way dual carriageway), Baldonnel Road (two way single carriageway), Grange Castle Business Park Access Road (two way single carriageway), and Profile Park Access Road. Vehicles, cyclists and pedestrians all

access the existing GIL campus via the R134 New Nangor Road, travelling along Baldonnel Road and Grange Castle Business Park South to the entrance.

- 8.6.7. The R134 New Nagor Road and R136 Grange Castle Road both have footways and cycle lanes. Within the GIL Campus and the Grange Castle Business Park, pedestrian and cycling infrastructure is available consisting generally of segregated 2m wide footpaths and cycle ways on both sides of the road. The closest bus stop provides access to Dublin Bus services 13 and 68. Existing parking provision is for 107 cars and 48 bicycles.
- 8.6.8. Existing traffic volumes and patterns were reviewed by carrying out traffic counts at five locations on the local road network over a 14 hour period between the hours of 06:00 and 20:00 on the 16th April 2024. Locations were selected due to proximity to the site and anticipated access route to the site. The traffic count results are set out in table 6.1 of the EIAR.
- 8.6.9. The development would provide an additional 42 car parking spaces, including 10 EV spaces and four accessible bays. Cycle parking would increase by 16 spaces to 64 in total. The development would incorporate a pedestrian connection. An emergency entrance is proposed to the east of the site from Profile Park Road and would include the provision of a pedestrian turnstile and a combined footpath and cycle way internally in the site to increase pedestrian and cyclist accessibility whilst limiting vehicular access to the site to a single entry point.
- 8.6.10. Construction access would be provided via Profile Park Business Park so as not to interfere with DC1 and DC2 operations. The majority of construction traffic would arrive via the R134 New Nangor Road. Construction staff vehicles car parking will be located at the northern side of the site during construction with construction vehicles and deliveries accessing the site from the east. All HGV movements to and from the site would follow the proposed construction traffic route via Profile Park Road, R134 New Nangor Road, R136 Grange Castle Road, N7 Naas and M50 Western Parkway in order to minimise traffic on local roads in the area.

Potential Effects

- 8.6.11. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
Do Nothing	In a 'Do Nothing' scenario the site would continue to function as is and would have no additional effect on the road network or transport infrastructure.
Construction	At peak construction there would be an estimated 494 two way HGV movements per day with an average of 42 HGV movements to and from the site in the peak hours when assuming a 12 hour work day. Also, during peak construction, it is estimated that there would be 800 construction workers on site daily with approximately 660 two way trips. Construction staff would be on site from 07:00 until 19:00 Monday to Friday and 08:00-14:00 on Saturdays and as such movements would not coincide with the morning or evening peak. The EIAR assumes a worst case scenario of 20% of these trips occurring during peak hours, equating to 66 movements. Link flow assessment results that junctions 2, 3 and 4 would see an increase in two way traffic volume in excess of 5% in the peak construction scenario. Junction 2 - This junction approaches capacity in the AM peak and operates at capacity in the PM peak in the existing scenario. Construction traffic leads to minor increases in saturation and brings the junction to capacity in the AM peak and overcapacity in the PM peak. Given that the construction traffic only contributes to a small increase in queue lengths and degree of saturation, the impact is considered minor and temporary, with peak construction being a 9 to 12 month period. Junction 3 operates at spare capacity and can easily accommodate construction traffic. The potential effect would be not significant and temporary.

	Junction 4 currently exceeds capacity during both the AM and PM Peak periods. Construction traffic would result in minor increases in the degree of saturation on all arms. Given that the junction is already over capacity, the minor increase as a result of construction traffic which only contributes to a small increase in queue lengths and degree of saturation, the impact is considered <i>moderate and temporary</i> as the peak construction period will have a duration of a 9 to 12 months.
Operation	The development would increase the total staff from 110 to 160. A worst case scenario assumes 70% of staff travelling to the site on a daily basis and arriving/departing during peak periods. This would equate to 220 two way movements daily. The increase in the number of staff is 50, this would equate to 32 vehicle movements with 90% of staff travelling as car drivers and 10% travelling as car passengers or public transport/cycle. Trip distribution would be similar to existing and vehicle access would be via the existing Grange Castle Business Park access from Baldonnel Road. Of the five junctions assessed only junction 5 would see increases above 5% and this would be the case in all modelled years. This is the junction of Grange Castle Business Park South and Baldonnel Road. In some cases, the % increase is significant. However, the detailed assessment results demonstrate that the junction is operating satisfactorily within capacity, with all arms presenting low RFC and Queue values. There are no capacity issues in any of the scenarios modelled and there is ample reserve capacity at all arms of this junction. The junction currently operates well below capacity currently and will continue to do so with the operational development. The impact of operational traffic on this junction would be <i>permanent but insignificant</i>.

	Pedestrian and cycle improvements, such as the link to Profile Park Road would be expected to have <i>long term, permanent, significant positive</i> effects.
Decommissioning	<i>No significant negative effects</i> anticipated.
Cumulative	It is considered unlikely that all consented construction projects would occur concurrently, although were that to be the case then some significant effects on the local road network may occur due to HGV queuing. Operationally, no significant negative additional negative effects are anticipated. Interface liaison will take place by relevant Contractor personnel on a case-by-case basis, to ensure that there is coordination between projects which may be under construction concurrently, so that any additional construction traffic mitigation measures required to deal with cumulative effects are managed appropriately

Mitigation

8.6.12. Construction traffic would be managed through the following measures:

- The majority of construction traffic will be required to arrive at and leave the site outside of the AM and PM peak periods, where practical.
- During peak hours, ancillary, maintenance and other site vehicular movements will be discouraged.
- Daily construction programmes will be planned to minimise the number of disruptions to the surrounding area by staggering HGV deliveries to site.
- HGV routes to and from the site will be developed in agreement with South Dublin County Council and with the objective of minimising the potential effect on the local areas for residents and businesses.
- Car parking will be provided for construction workers in a designated area in agreement with South Dublin County Council to avoid construction staff vehicles parking on public roads.

- The Project Supervisor Construction Stage (PSCS) will be required to promote travel by sustainable modes of transport.

8.6.13. The development would be carried out in line with a Construction Traffic Management Plan which is outlined in the CEMP and would be a conditioned requirement of any permission. Additionally, as part of the construction contract, the Contractor would be required to prepare a Construction Mobility Management Plan for the workforce to encourage travel by means other than private car.

8.6.14. Operational mitigation would include mobility management measures secured through an Operational Phase Mobility Management Plan. In a potential decommissioning phase, mitigation measures would be similar to those of the construction phase.

Residual Effects

8.6.15. Following implementation of the relevant mitigation measures, no negative significant effects would be anticipated.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.6.16. Having regard to the foregoing, and having examined, analysed, and evaluated Chapter 6 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of traffic and transportation, I am satisfied that the Applicant's presented baseline environment is comprehensive and that the key impacts in respect of likely effects on traffic and transportation, as a consequence of the proposed development, have been identified.

8.6.17. I note that in terms of public transport, reference is made to bus 68 from Baldonnel Road. From the information available to me, contrary to the EIAR Dublin Bus service 68 does not stop on Baldonnel Road c.650m from the site. The nearest stop for the 68 is 1.2km to the north on the R134 New Nangor Road. In any event, this does not change the outcome or the assumptions of the EIAR but should be noted for clarity. Suitable mitigation measures have been proposed which I consider are sufficient to ensure that there would be no significant adverse traffic and transportation impacts. I am also satisfied that there would be no significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

8.6.18. Having regard to my examination of environmental information in respect of traffic and transportation, in particular the EIAR provided by the Applicant, the view and

report of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect traffic and transportation impact is, and would be mitigated where relevant, as follows:

- Potential significant, indirect, short-term effects on the local road network arising from cumulative construction traffic potentially leading to HGV queuing in internal site roads.

8.7. Air Quality

Issues Raised

- 8.7.1. No air quality issues have been raised by parties to the appeal.

Context

- 8.7.2. Air quality is addressed in Chapter 7 of the EIAR. This chapter assesses and evaluates potential impacts on air quality that may be linked to the construction, operational, and decommissioning phases of the development in accordance with the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022). Relevant legislation and guidance are listed at the outset of the methodology in Section 7.2 of the EIAR.
- 8.7.3. Air Quality Regulations came into force in December 2022. Limit values for various pollutants are set out in Table 7 of the EIAR and includes NO₂, PM₁₀, PM_{2.5} and SO₂. National air emissions targets establish emissions reduction commitments. In terms of the proposed development, the relevant pollutants are NO₂ and PM_{2.5} and the 2020 to 2029 emission targets are 65kt for NO_x (49% reduction on 2005 levels) and 10kt for PM_{2.5} (18% reduction on 2005 levels).
- 8.7.4. The assessment takes into account construction phase activities, the main effects from which would be dust, elevated PM₁₀ concentrations from dust generating activities, and an increase in NO₂ and PM₁₀ from exhaust emissions from construction machinery and vehicles. Operational phase activities would be related to traffic and the operation of backup generators, of which there would be 45 in total.

Baseline

- 8.7.5. The site is located in Zone A (Dublin Conurbation) in terms of the Environmental Protection Agency's air quality zoning. A desk study of the EPA air quality monitoring

programmes has been undertaken. Concentrations of each pollutant recorded in Zone A are averaged to represent typical background levels. Average concentrations were obtained from all stations where 90% data capture was achieved. Background pollutant levels from 2022, 2021 and 2020 air quality monitoring of NO₂, PM₁₀, PM_{2.5} and SO₂ are listed for Zone A, as provided by the EPA, and are presented in Table 7.12 of the EIAR. The average background concentrations are well within the air quality standards for all pollutants in Zone A. The sensitivity of the area to human health effects is considered to be low due to the low background concentration of PM₁₀.

- 8.7.6. Sensitive human receptors are located within 250 m of the site boundary so therefore an assessment of the air quality effects is required. There are no ecologically sensitive receptors within 50 m of the site boundary or within 250 m of the site entrance and as such this is not considered further. Dispersion modelling has been undertaken and an AERMOD model was used to consider building wake effect. Ground level concentrations are predicted at each receptor location. It is important to note that these do not represent individual homes but would be representative of a worst case scenario. Meteorological data was obtained from the Met Éireann station at Casement Aerodrome.

Potential Effects

- 8.7.7. Potential significant effects of the development, as identified in the EIAR, are summarised below.

Project Phase	Potential Effects
Do Nothing	In a 'Do Nothing' scenario the development would not proceed and none of the construction, operational or decommissioning effects would occur.
Construction	Direct effects would be likely to result from site clearance, diversion of utilities, foundation works, excavation, use of plant, stockpiling of excavated materials, stockpiling of excavated materials, handling of construction materials and construction traffic movements.

	Direct effect on air quality during the construction phase has the potential to be negative, significant, and short-term in proximity to the works. Indirect effects would be related to changes in construction phase annual average daily traffic (AADT) between the existing and proposed scenario. Further detail is provided in Chapter 6 (Traffic and Transportation). Predicted concentrations are within air quality standards and effects can be categorised as neutral and short-term.
Operation	There would be potential effects on air emissions as a result of the operation (emergency and testing) of backup generators. There are 24 existing generators that have been tested. The development proposes 45 generators. Both existing (DC1 and DC2) and proposed (DC1, DC2, and DC3) scenarios have been tested. All parameters would be in compliance with limit values. A small reduction in ground level concentrations is predicted for NO₂ and PM₁₀ due to the proposed decrease in emergency operation of the generators from 150 hours per annum to 100 hours per annum across the full GIL Campus. This would result in a neutral to moderate positive effect. Emissions from the backup generators were assessed using the UK Environment Agency methodology with results indicating that the facility can operate for a maximum of 911 hours in any given year without exceeding air quality standards. Emergency operation of the generators would be limited to 100 hours per year and as such no significant effects on air quality are anticipated. No significant operational effects are anticipated at ecological receptors or as a result of operational traffic.
Decommissioning	Potential effects would likely be similar to those of the construction phase.

Cumulative	IAQM guidance is that dust effects are likely to arise within 250m of a site boundary. Seven developments have been considered that occur within 250m of the site boundary and may overlap in construction phase. Each was approved subject to EIAR mitigation. As such no significant impacts are likely to arise in terms of air quality and dust. If all developments were constructed at the same time, then significant air quality effects could arise due to queuing HGV traffic on internal site roads, however the absence of sensitive receptors in these locations means no significant effects are likely to arise. Additionally, liaison would take place to ensure coordination between projects so that mitigation measures to deal with cumulative effects are managed appropriately. No significant cumulative air quality effects are likely to arise during the operational phase.
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Mitigation

- 8.7.17. Construction phase mitigation would be encapsulated in a Construction Environmental Management Plan (CEMP). This would cover, communications, site management, monitoring, site preparation and maintenance, plant/vehicle operation, sustainable travel, operations, waste management and measures specific to both construction and trackout. Decommissioning mitigation would be similar to the construction phase.
- 8.7.18. Operational phase mitigation is not required. Ground level concentrations would reduce due to changes to the number of hours of operation of the generators and the need to operate within the bounds of a revised IE Licence for the full campus, which would require monitoring of the emissions from the generators.

Residual Effects

- 8.7.19. Following the implementation of mitigation no adverse significant effects are anticipated at any phase.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

- 8.7.20. I have examined, analysed, and evaluated Chapter 7 – Air Quality of the EIAR and all of the associated documentation, submissions, and observations on file in respect

of air quality. I am satisfied that the Applicant's understanding and assessment of baseline environment is comprehensive and that the key impacts in respect of likely effects on air quality, as a consequence of the proposed development, have been identified and analysed.

8.7.21. I note that the backup generators are tested for up to 150 hours per year. The proposed scenario would result in a drop in ground level concentrations of NO₂ and PM₁₀. This would be achieved as a result of reducing the annual testing from 150 hours to 100 hours and would overall have a slight positive impact. Had the testing remained at 150 hours then I consider it likely that annual average NO₂ would have exceeded air quality standards. However, I have no objection to the Applicant reducing testing from 150 hours to 100 hours, this is entirely within the Applicant's control and is an operational matter for them. In terms of the proposed testing hours, I am satisfied that this could be enforced on foot of the EIAR and it would be covered by the EPA Licence review. As such I am satisfied that the levels set out in the EIAR would be achieved.

8.7.22. Suitable mitigation measures and best practice methods have been proposed, and I am satisfied that they would be sufficient to ensure that there would be no significant adverse impacts on air quality. I am also satisfied that there would be no significant cumulative adverse impacts, subject to the implementation of the proposed mitigation.

Conclusion: Direct and Indirect Effects

8.7.23. Having regard to the foregoing examination of environmental information in respect of air quality, in particular the EIAR provided by the Applicant, the view of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I do not consider that there are any significant direct or indirect air quality effects and that negative effects arising for air quality during the construction phase would be mitigated by a suite of appropriate construction phase environmental management measures.

8.8. Climate

Issues Raised

- 8.8.1. Observations on the appeal raise several issues related to climate, GHG emissions, inadequate EIAR reporting/conclusions, compliance with legislation and insufficient mitigation.
- 8.8.2. It is stated in the observations that Ireland is projected to exceed climate targets by exceeding the emissions ceilings for 2025 and 2023 and that no assessment against these legally binding emissions ceilings has taken place. Observations state that the assessment of emissions and the impact of energy demand on climate has not been rigorous or carried out in line with the EIA Directive. Observations note that the methodology is correct, but the conclusions of minor impact was incorrect and unjustified and that long term effects should not be considered insignificant.
- 8.8.3. It is argued that the scheme would result in additional GHG emissions and that there are no mitigation measures to produce a corresponding reduction in other parts of the state's energy system and that the climate impacts would remain significant adverse. Concerns are raised that there has been no analysis of the impact of climate mitigation, that it is not clear how conclusions were reached and that the cumulative assessment was not sufficient and should have considered other data centres on a macro scale.
- 8.8.4. Further concerns raised regarding mitigation measures include that the Applicant is relying on mitigation measures that are outside of their control as they are dependent on future decarbonisation of the grid to achieve the 80% target and that CPPAs do not constitute mitigation, that the CPPA is inadequate and insufficient, it does not comply with government policy and would not be considered additionality.
- 8.8.5. Observations consider that increased emissions have not been assessed against the Climate Act and that an increase of 0.44% in annual national emissions is not compatible with obligations to reduce emissions and the increase of almost 0.5% in annual emissions from a single development is significant. Further concerns are raised that more large energy users that materialise, the more renewable energy will be required, making achievement of the 80% target more uncertain and that participation in the EU Emissions Trading Scheme does not negate or act in place of obligations under the Climate Act.

Context

- 8.8.6. Chapter 8 of the EIAR addresses the matter of climate and the likely direct and indirect significant effects associated with the construction, operational, and decommissioning

phases of the development through the release of greenhouse gases (GHG). Potential construction phase effects would include the embodied carbon associated with the materials employed in construction of the development. Operational climate effects would be related to the use of the backup/emergency generators and the energy used to power the data centre.

- 8.8.7. The methodology sets out the relevant regulations, legislation, and guidance, including local, national and EU policy and climate agreements. EU GHG emissions reduction targets and obligations for Ireland are covered by two categories. The first refers to large energy and power industry which have emissions controlled under the EU Emissions Trading Scheme (ETS) and covers power plants, industry factories and aviation, and energy intensive sectors. The second refers to non-ETS sectors such as agriculture, transport, commercial and non-energy intensive industry.
- 8.8.8. Under the ETS, GIL is permitted to undertake activities resulting in emissions of CO₂eq from emergency generators. The permit places obligations on monitoring and reporting requirements and requires GIL to surrender allowances to the Agency equal to the annual reportable emissions of CO₂eq from the installation in each calendar year. As the proposed development will have a thermal input greater than 20MW, a GHG emission permit is required from the EPA. The existing ETS and EPA permit will need to be revised to account for the development.
- 8.8.9. The overall volume of GHGs that can be emitted by sectors covered by the ETS is limited by a 'cap' on the number of emission allowances. The cap decreases annually ensuring that total emissions fall. In 2023 the European Commission issued a new Effort Sharing Regulation (ESR), requiring Ireland to reduce non-ETS emissions by 42% against 2005 levels. In February 2024, Commission recommendations were to reduce the EU's net GHG emissions by 90% by 2040 relative to 1990, to ensure the EU reaches climate neutrality by 2050.
- 8.8.10. In Ireland, the Climate Action and Low Carbon Development Act (Climate Act) was enacted in 2015 and amended in 2021. It places legal commitments on Ireland to move to a climate neutral economy by 2050 (net zero) and introduces 5 year carbon budgets in addition to annual reviews of the Climate Action Plan. A 51% reduction in GHG emissions was set as a budget target to 2030.

- 8.8.11. Sectoral Emission Ceilings (SEC) were published by the Government in 2022 and the ceilings for each sector are set out in detail in table 8.2 of the EIAR. The SECs set out the maximum amount of GHG emissions that are permitted in different sectors of the economy during a budgetary period. Baseline emissions in 2018 were 10.5 MtCO₂eq. The SEC for electricity is 40 MtCO₂ eq for the 2021-2025 budgetary period, and 20 MtCO₂eq for 2026-2030. In the final year of the 2021-2025 budget period indicative emissions are 6 MtCO₂ eq and 3 MtCO₂eq in the final year of the 2030 period. The electricity sector is required to reduce emissions by 75% by 2030 relative to 2018 emissions. Additionally, a clear target set out in CAP 24 is to reach 50% renewable energy share for electricity in 2025 and 80% by 2030 relative to 2005 levels.
- 8.8.12. The EIAR notes that 5.25 MtCO₂eq of annual emissions are currently unallocated on an economy-wide basis for the second carbon budget period (2026-2030). These will be allocated following a mid-term review and identification of additional abatement measures.

Baseline

- 8.8.13. Climate data indicate that weather extremes will become more likely and frequent with future climate change. Reports from the EPA (The Status of Ireland's Climate 2020) notes that average surface air temperatures have increased (0.9% in the last 120 years), temperatures have risen in all seasons, sea levels have risen (2-3mm per year since the early 1990's) and precipitation levels are higher.
- 8.8.14. The EPA expect climate change to lead to adverse effects such as sea level rise, more intense storms and rainfall events, increased likelihood and magnitude of flooding, summer water shortages in the east, impacts on water quality, effects on fisheries and changes in the distribution of plant and animal species.
- 8.8.15. Ireland has a temperate, oceanic climate, with mild winters and cool summers. Met Éireann records indicate a recent increase in the frequency and severity of storms, heavier rainfall and flooding. European State of the Climate 2023 report notes that 2023 was the warmest year on record for the second year running since records began in 1900 as well as being one of the wettest.
- 8.8.16. TRANSLATE, published by Met Éireann (2023) provides standardised and bias-corrected national climate projections for Ireland on how Ireland's climate could change as global temperatures increase.

- 8.8.17. A Flood Risk Assessment (FRA) was submitted. This is included in Appendix 12.1 and has been assessed as part of Chapter 12 (Water). The FRA assessed risks of flooding to the development from fluvial, tidal, pluvial and groundwater flood sources factoring in climate change and concluded that risks could be managed and mitigated in compliance with relevant guidance.
- 8.8.18. Baseline greenhouse gas emissions are derived for future years (to account for construction and operational years) from published EPA CO2eq projections. Ireland’s Greenhouse Gas Emissions Projections 2023-2050 (EPA 2024) includes total projected emissions and a breakdown of projected emissions per sector under the “With Existing Measures (WEM)” and “With Additional Measures (WAM)” scenarios.
- 8.8.19. The projections show that implemented policies and measures in the WEM scenario can only deliver an 11% reduction in greenhouse gas emissions by 2030 compared to the 2018 level. The WAM scenario, including policies and measures from the 2024 Climate Action Plan, is projected to deliver a 29% emissions reduction over the same period. Both projected scenarios indicate that even with implementation of all climate plans and policies Ireland will not meet the 51% emissions reduction target by 2030.
- 8.8.20. Ireland contributes to the achievement of EU-wide 2030 targets through obligations under the Renewable Energy and Energy Efficiency Directives, with a requirement to achieve 50% renewable electricity by 2025 and 80% renewable energy by 2030. Renewables accounted for 38.6% of electricity in 2022 (according to CAP24) which was a 3.6% increase from 2021. Electricity emissions decreased by 2% in 2022, largely attributed to increased renewable generation. In the first half of 2023, electricity emissions were 16.7% lower than the equivalent 2022 period and renewables accounted for 43% of electricity generated. The ETS is currently in Phase 4 (2021-2030) under which emissions in the ETS sectors must be cut by 62% by 2030, compared to 2005.

Potential Effects

- 8.8.21. Potential significant effects of the development, as identified in the EIAR, are summarised below

Project Phase	Potential Effects
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Do Nothing	In a 'Do Nothing' scenario the site would remain as is, no construction, operational or decommissioning effects would materialise.
Construction	<u>Embodied Carbon</u> The assessment has considered excavation and construction materials and quantities. As previously stated, the construction phase would be 27 months. Operational lifespan has been considered in terms of maintenance embodied carbon. Full details are provided in Table 8.7 of the EIAR where it is shown that the embodied carbon of the construction materials account for 83% of all carbon emissions with excavated materials and transportation of materials accounting for the rest. Potential effects are predicted to be adverse, moderate and short-term. <u>Construction Traffic</u> Construction phase traffic effects would vary dependant on particular site works taking place. The assessment assumes traffic volumes occurring for the full construction period and also includes transport of materials which is quantified in embodied carbon. The results are therefore conservative likely overstate emissions. Construction phase traffic emissions are predicted to amount to 362 tonnes of CO2 annually over the construction period of 27 months. Effects are predicted to be adverse, moderate and short-term.
Operation	<u>Direct Effects</u> Potential direct effects would relate to emissions from the additional 45 diesel back-up generators to be used on DC3. This would be predicted to have adverse, minor, and permanent effects. <u>Indirect Effects</u> Indirect effects relate to the emissions from energy generated by the national grid to power the proposed development. The

	proposal is predicted to result in <i>adverse, moderate</i> effects which based on the table at 8.4 of the EIAR, would be <i>significant</i>. The duration of the effects is considered to be <i>short-term</i>, as, in accordance with CAP24, 80% of the electricity grid will be renewable by 2030 thereby significantly reducing carbon emissions. <u>Climate Change Vulnerability</u> No significant effects anticipated.
Decommissioning	Potential effects are predicted to be minor adverse and short-term.
Cumulative	No significant cumulative adverse effects are likely to arise on the basis that other schemes will implement mitigation measures in the same way that the proposed development will and that operational development would be required to comply with GHG regulations.

Mitigation

- 8.8.22. Construction phase mitigation includes the use of materials with reduced embodied carbon (such as GGBS concrete), material reuse (reclaimed asphalt and recycled aggregate), use of recycle steel, locally sourced materials, implementation of a Construction Traffic Management Plan (CTMP), use of prefabrication where possible which limits construction waste, reduces the embodied carbon of the products and improves the construction efficiency.
- 8.8.23. Direct operation phase mitigation would include the development being required to operate within EPA regulations of the greenhouse gas permit which limits the carbon emissions from the emergency generators. The greenhouse gas permit will need to be updated to account for the new combustion sources.
- 8.8.24. ETS requirements oblige GIL to report annually to the EPA on CO₂eq emissions and reduce emissions and/or pay for CO₂eq allowances (100% of CO₂eq emissions by 2034). GIL is also limited by the EPA under IE Licence P1189-01 on the use of its generators both in the testing and emergency mode. An updated licence would be

required, and GIL commits to reducing the use of its generators in emergency mode from 150 hours per annum to 100 hours per annum which will reduce emissions. It is anticipated that the revised licence would be required to incorporate the proposed DC3 and it is anticipated that similar conditions, restrictions and obligations would apply.

- 8.8.25. The development would operate through an Energy Management System (EnMS) which has been in operation since 2013. The data centre has been designed with high efficiency standards to minimise energy use and power loss. Servers are also designed as energy-proportional systems and conserve power when not in use.
- 8.8.26. Indirect operational phase mitigation would include a 14 year Corporate Power Purchase Agreement (CPPA) which has been signed for a 58 megawatts solar farm through an existing grid connection which is predicted to allow GIL offices and data centres in Ireland to reach 60% carbon-free energy in 2025.
- 8.8.27. GIL matches 100% of its electricity consumption of global operations with purchases of renewable energy on an annual basis and this would continue to apply in order to mitigate carbon emissions generated during the operational phase of the development, in accordance with CAP24.
- 8.8.28. Measures to facilitate district heating have been incorporated and will be realised once a suitable offtaker has been identified. Photovoltaic panels (PV) would be installed on the roof of the FSA building, generating 20% of the energy needs of the building. Other embedded mitigation includes the use of Variable Speed Drive (VSD) technology where appropriate to ensure that electrical drives operate efficiency over their demand range, minimise water use through design and high efficiency installations
- 8.8.29. GIL is certified until 30th June 2027 under the Climate Neutral Data Centre Pact standard (as verified by Bureau Veritas) which considers energy efficiency, clean energy, water conservation, circular economy, and circular energy systems. GIL would align DC3 with the EU Climate Neutral Data Centre pact in terms of energy efficiency and water use and will set targets to achieve zero carbon electricity use at all hours.
- 8.8.30. Significant further reductions in CO₂eq emissions by 2030 are anticipated as a result of decarbonisation of the electricity grid and increased proportion of renewables which will further mitigate potential indirect effects on climate.

Residual Effects

8.8.31. Following the implementation of mitigation, no significant adverse construction phase residual effects are anticipated, with effects being adverse, minor, and short term. In terms of the operational phase (direct), residual effects are anticipated to be **adverse, minor, and permanent**. Indirect residual operational effects are expected to be **adverse, minor and short term**, with longer term effects considered not significant due to the ongoing transition of the grid in terms of decarbonisation.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.8.32. Observations on the appeal state that Ireland is projected to exceed legally binding emissions ceilings and that there is no assessment against these legally binding limits. It is stated that the assessment of emissions and climate has not been rigorous and that whilst the methodology is correct, the conclusion of minor impact was incorrect.

8.8.33. The appropriateness of the methodology has been accepted, and I am satisfied that it is sufficiently robust and of appropriate scope. Sectoral Emissions Ceilings are set by the Government and incorporated into the Climate Act. Emissions in the EU are controlled by the Emissions Trading Scheme (ETS) for energy intensive industry and the Effort Sharing Regulation (ESR) for sectors outside of the ETS. By 2030, Ireland is required to reduce non ETS emissions by 42% against 2005 levels. The Climate Action Plan requires overall reductions of 51% by 2030.

8.8.34. The EPA is responsible for developing, preparing and publishing annual projections of greenhouse gas emissions for Ireland in line with EU guidelines and reporting obligations. The Eirgrid Ten-Year Generation Capacity Statement (2023-2032) is used to calculate projected emissions from the electricity sector and demand capacity that was contracted to data centres prior to the November 2021 is included within forecasted demand figures. On that basis, it is my view that the energy demands of the development have already been accounted for in national projections and emissions ceilings given the existing grid connection and connection agreement. I am therefore satisfied that the proposal does not account for new demand.

8.8.35. The mitigation measures are set out in detail above and include measures that seek to mitigate GHG emissions and assist in the decarbonisation of the grid. These measures include the provision of PV panels and the signing of a CPPA for new to the grid renewable energy. Having regard to the Climate Change Adaptation Statement, I also consider that a condition should be imposed to secure the use of HVO fuel in the

backup generators. These matters have been addressed in detail previously. The most significant of these measures in my mind is the signing of a CPPA.

- 8.8.36. Government guidance acknowledges that CPPAs have a role to play in decarbonising the electricity sector and ensuring demand growth from large energy users, such as data centres, reduces the cost of reaching renewable energy targets. A CPPA has been signed 58MW of renewable energy. Whilst I note that this does not meet to the energy demands of the proposed development, there is nothing to suggest that the CPPA process needs to be exhaustive or limited to the planning application process.
- 8.8.37. Furthermore, I am of the opinion that securing new to the grid power generation under a CPPA would count as additionality and would not dilute renewable penetration to the grid. This would certainly accord with the Government Statement which acknowledges the role that CPPAs will play in the delivery of renewable energy.
- 8.8.38. The CPPA signed by the Applicant would allow the wider GIL operation to reach 60% carbon free energy, thereby securing reduced carbon emissions in the operation of the development, albeit not net zero. However, the Applicant's submission states that there are further planned CPPA(s). On that basis I find that a condition should be imposed that requires the Applicant to enter into a further CPPA(s) that would meet the energy needs of the development with new to the grid energy and be in place prior to commencement. Given the 10 year permission being sought, this is not unreasonable, and I note that efforts to reduce emissions and increase renewable use would continue concurrently.
- 8.8.39. It has been raised that the Applicant is relying on the decarbonisation of the grid as a mitigation measure and that this is not within their control. On the face of it I would agree with the observers that there is a degree of reliance on wider efforts to decarbonise the grid. CAP24 sets a target of achieving 80% renewable electricity share by 2030. The Applicant's EIAR considered that the 80% target was fully achievable in a With Additional Measures (WAM) scenario, which includes planned but not yet fully implemented government policies and measures in addition to currently enacted measures. In a With Existing Measures (WEM) basis, which includes all currently implemented measures and Government commitments, a 69% share would be achieved. In addition to this, the Applicant considered that the ten year

permission would extend beyond 2030 at which stage the grid would comprise at least 80% renewables.

- 8.8.40. I have considered updated information from the EPA as set out in Ireland's Greenhouse Gas Emissions Projections 2024-2055 which now clarifies that Ireland would achieve 60% renewables under WEM and 68.3% under WAM. As such, the 80% target is unlikely to be met by 2030. That being said, I agree with the Applicant that the share of renewables is increasing annually and that electricity usage emission factors are continuously decreasing and on that basis the conclusion outlined in Chapter 8 is not unreasonable in my mind and despite the delay in reaching 80%, I agree that the longer-term effects would not be significant.
- 8.8.41. On the issue of increased emissions, observers state that an increase of 0.44% in annual emissions would not be compatible with obligations to reduce emissions. Indirect CO₂ emissions generated by the site considered electricity generation, transmission, distribution losses and were accounted for using the SEAI grid emission factor of 254.8 gCO₂/kWh. As detailed in the Applicant's submission, this is based on a 2023 figure. EPA projections are that emissions from the energy industries sector (inclusive of large energy users) are projected to fall by 57% to 4.4 Mt CO₂eq between 2022 and 2030 on a WEM basis. When considering additional measures (WAM), emissions are projected to fall by 62% to 3.9 MtCO₂eq between 2022 and 2030.
- 8.8.42. Even in the context of the well documented pressures and constraints of data centre demand, emissions are projected to reduce by 17% between 2023 and 2027 in a WEM scenario. The ESB have a carbon intensity target of 140g CO₂/kWh for 2030 which does not take into account future emission reductions reported by the EPA. This is significantly lower than the emissions factor employed in the EIAR and as such I would agree with the Applicant that the emissions factor employed in the EIAR is conservative. In any event, the mitigation measures set out previously and secured by condition would serve to significantly reduce the emissions impact of the development whilst contributing to decarbonisation of the grid. It is therefore my view that the development would comply with both national and local policy, would not hinder efforts to satisfy the requirements of CAP 25 and the provisions of the Climate Act, and would not be an impediment to achieving net zero.

Conclusion: Direct and Indirect Effects

8.8.43. Having regard to my examination of environmental information in respect of climate, in particular the EIAR provided by the Applicant, the view and report of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect climate impact is, and would be mitigated where relevant, as follows:

- ***Indirect adverse moderate effects*** which would be classed as **significant** based on TII Guidance, related to the emissions from energy generated by the national grid to power the proposed development.

8.9. Noise and Vibration

Issues Raised

8.9.1. No noise and vibration issues have been raised by any parties to the appeal.

Context

8.9.2. Impacts of the project on noise and vibration are addressed in Chapter 9 of the EIAR, with the methodology for the assessment described, information sources referenced, and relevant legislation outlined. Construction phase noise and vibration impacts would be associated with activities such as site preparation works, earthworks and external works. Operational effects would be associated with building services noise and the operation of backup generators. The adopted methodology is as follows:

- Review appropriate guidance and the current Industrial Emissions Licence (IEL) (P1189-01) in order to identify appropriate noise criteria for the site operations.
- Carry out noise monitoring at a number of locations in the vicinity of nearest sensitive properties to identify existing noise levels.
- Develop a detailed 3D noise model to assess the impact of the Proposed Development.
- Outline and comment on predicted levels against the appropriate criteria and existing noise levels and outline required mitigation measures (if any).

Baseline

- 8.9.3. The assessment considers construction phase noise, traffic noise, and vibration. Operational noise and vibration are also considered. There are no published statutory noise limits for construction sites in Ireland and the assessment therefore employs British Standard BS5228-1:2009+A1:2014 Code of Practice. This document provides methods for predicting receptor noise levels from construction works based on the number and type of construction plant and activities operating on site, with corrections to account for different situations such as ground type and distances from source to receptor.
- 8.9.4. Road traffic noise levels have been calculated based on the 18-hour Average Annual Daily Traffic (AADT). In terms of vibration, two aspects are addressed in the standards and guidelines. These are the risk of cosmetic or structural damage to buildings and human perception of vibration. It is appropriate to consider the magnitude of vibration in terms of Peak Particle Velocity (PPV).
- 8.9.5. Noise surveys were carried out with monitoring stations to the south, east, and north west of Baldonnel Road. Surveys were carried out in December between 11:00-16:00, 21:00-22:00 and 23:00-01:00. Survey results are presented in EIAR table 9.11 (daytime), 9.12 (evening), and 9.13 (night). These noise levels have been used to determine appropriate noise thresholds as set out in Table 9.2 of the EIAR and based on the guidance in BS5228-1. The baseline noise levels from the two measuring locations are set out in the table below:

Daytime				
	LAeq (dB)	LA10 (dB)	LA90 (dB)	LAF max (dB)
Location 1	63-68	68-69	40	81
Location 2	62-65	64-68	45	87
Evening				
Location 1	58	53	42	84
Location 2	56	46	42	81
Nighttime				
Location 1	42-57	43-44	40-41	56-83

Location 2	54-60	51	40	78
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- 8.9.6. The noise surveys indicated that in all three time periods, the dominant noise source was road traffic noise from Baldonnel Road. Other noise sources include distant traffic on the N7 and R120, aircraft, machinery/plant in Profile Park, trains, wind, and animals. A total of 11 residential receptors were identified close to the site along Baldonnel Road in addition to two crèches.

Potential Effects

- 8.9.7. Potential significant effects of the development, as identified in the EIAR, are summarised below.

Project Phase	Potential Effects
Do Nothing	‘Do Nothing’ has not been considered for noise and vibration (with the exception of traffic noise). In the absence of development taking place, the noise/vibration environment would remain generally unchanged and as reported in the baseline study.
Construction	Construction noise would occur at all stages of the development. Construction work would take place during the day, and the programme would be approximately 27 months. The highest noise levels would be associated with earthworks, including the substructure preparation works, site preparation works, and external works of the data centre facility. In the absence of mitigation, effects on the 11 identified receptors would range from no change to effects categorised as negative, significant to very significant, and short term. Construction traffic noise is modelled from predicted annual average daily traffic (AADT). No significant effects are predicted. Further detail on traffic levels is provided in Chapter 6 of the EIAR.

	Vibration effects are associated with excavation activities typical of site preparation and substructure construction. The level of vibration at nearby sensitive receptors likely to result from excavation activities is less than 0.1 mm/s PPV, based on measured levels from previous construction projects, no significant effects are predicted.
Operation	Sources of noise from the operational development would be associated with building services noise and generator noise, either from routine testing or emergency site operations. A 3D noise model was developed to assess likely impacts. This included various elements of what I would consider as designed in mitigation such as louvres and operational controls. Three scenarios have been modelled. Scenario 1 (Normal Operation): continuous day and night time periods and typical of the daily running of the site. No generators operating. Scenario 1 would remain compliant with the IE Licence requirements and noise limits for all periods. Scenario 2 (Maintenance): Monthly operations including 60 minutes of runtime for each generator at 100% in addition to operations of Scenario 1. Testing would not take place in the evenings. Scenario 2 would remain compliant with the IE Licence requirements and daytime noise criterion. Scenario 3 (Full Site Blackout): Emergency only, all generators running for the duration at 100% load. This includes normal scenario 1 operations. Such an event is extremely unlikely and in line with EPA NG4 guidance, no noise limits are set for these emergency situations. In any event, I note that the predicted noise levels are comparable to the baseline levels recorded at the noise monitoring locations. In terms of predicted noise levels, an increase of between 1 and 3 dBA is predicted above the existing average night time noise

	levels at seven receptors. This would be a negative, slight to moderate, long-term effect. Overall potential effects can be described as ranging from <i>no change to imperceptible, to negative, slight-moderate</i> . No significant effects are predicted.
Decommissioning	The development would have a lifespan of 35-40 years, upgrading and maintenance would be expected to continue, and the facility would be suitable for re-use. Potential effects from decommissioning Phase would be similar to the construction phase, particularly superstructure and fit out works. No significant effects are predicted.
Cumulative	No significant construction phase effects are anticipated. Operationally, there is potential for a slight to moderate noise level increase at receptors when considering all screened in development. This would be long term and constitutes a potential significant effect on the noise environment on a cumulative basis. However, the predicted noise levels from the proposed development are a worst case scenario with typical noise levels expected to be lower than those predicted. The proposed development and other development in the vicinity would be required to comply with all noise limits defined in planning permissions or controlled by the IEL.

Mitigation

8.9.10. The development would employ noise barriers to a sufficient height and solidity to achieve a 10dB reduction in noise levels at all receptors. Further controls on noise and vibration would be achieved through:

- Limiting the hours during which site activities likely to create high levels of noise or vibration are permitted

- Appropriate liaison with key stakeholders/residents with appointment of an appropriate representative responsible for matters relating to noise and vibration.
- All site access roads will be kept even to mitigate the potential for vibration from lorries.
- Selection of plant with low inherent potential for generation of noise and/ or vibration.
- Erection of barriers as necessary around items such as generators or high duty compressors.
- Situate any noisy plant as far away from sensitive properties as permitted by site constraints and the use of vibration isolated support structures where necessary.

8.9.11. Vibration from construction activities to off-site residences would be limited to the values set out in Table 9.6 (guidance) of the EIAR through monitoring at the site boundary or at noise-sensitive locations. Monitoring would be undertaken near working areas to identify procedures that may need to be altered. An appropriate complaints procedure would be put in place.

8.9.12. Operational phase mitigation has been designed into the scheme and included in the noise modelling in the table above. This includes acoustic louvres, attenuators, and reduced fan speeds during the night time period. Appropriate monitoring would be put in place.

Residual Effects

8.9.13. Following the implementation of mitigation, no significant construction phase effects are expected. In the operational development, no significant effects are reported for Scenario 1. For Scenario 2, all predicted noise levels at receptors would remain compliant with IEL limits. However, there would be some increase in noise levels above measured background levels. Three receptors would experience effects ranging from ***negative moderate to negative significant***. This would be related to maintenance operation of the generators and the maximum noise levels would apply for only 60 minutes once a month and the maximum noise levels would only occur

when the generator that is closest to the receptor is being tested. At all times the predicted noise levels at all receptors would comply with the IEL noise limits.

- 8.9.14. In a full site blackout scenario (Scenario 3), a ***negative, moderate to significant temporary*** effect is predicted at one receptor and a ***negative, very significant, temporary*** effect is predicted for 12 receptors. It should be noted that this type of scenario is unlikely to occur, it would be a rare emergency event and would be expected to be brief in duration and as such not significant (based on duration).

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

- 8.9.15. I have examined, analysed, and evaluated chapter 9 – Noise and Vibration of the EIAR and all of the associated documentation, submissions, and observations on file in respect of noise and vibration impacts. I am satisfied that the key noise and vibration impacts, as a consequence of the proposed development, have been identified. I am satisfied that the predicted noise levels and conclusions are reasonable and that the residual impacts would be temporary, short term and infrequent emergency) nature. I have considered the results of the cumulative assessment and note that the predicted levels are not significantly above the baseline levels and rated slight to moderate. As such, I do not consider that this would result in a significant adverse effect, particularly when considering that the predicted noise levels are worst case and presented against night time baseline results as the most sensitive and conservative approach, and that the reality of daily operations is expected to produce lower noise levels than those predicted. Furthermore, the proposed development and schemes considered in the cumulative assessment would be required to comply with noise limits secured in the relevant consents in addition to the limitations imposed by the IE Licences.

Conclusion: Direct and Indirect Effects

- 8.9.16. Having regard to my examination of environmental information in respect of noise and vibration impacts, in particular the EIAR provided by the Applicant, the view and report of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect noise and vibration impact is, and would be mitigated where relevant, as follows:

- ***Direct significant to very significant negative*** short term noise effects arising for seven residential receptors along Baldonnel Road to the south of the site during the construction phase, which would be mitigated as much as practicable by a suite of appropriate construction phase management measures, adherence to best practice measures, and planning conditions.
- ***Direct significant negative*** noise effects during the operational phase as a result of use of the emergency back-up generators. This would apply to the hourly testing once a month or rare use in emergency situations where there is a site black out. In both instances the effects would be very short term and in the context of testing, noise limits would remain in compliance with the Industrial Emissions Licence.

8.10. Population and Human Health

Issues Raised

8.10.1. No specific issues are raised by parties to the appeal.

Context

8.10.2. Impacts on population and human health are considered in Chapter 10 of the EIAR. Environmental pathways that may affect human health include air, noise, water, and soil. As such, the assessment of human health draws on the findings of other technical chapters of the EIAR and there is therefore significant potential for interactions with other EIAR chapters. The likely significant impacts on human health and population regarding these issues are addressed in detail within the following EIAR chapters:

- Chapter 6 – Traffic and Transport
- Chapter 7 – Air Quality
- Chapter 8 – Climate
- Chapter 9 – Noise and Vibration
- Chapter 11 – Biodiversity
- Chapter 12 – Water
- Chapter 13 – Land, soils, geology, and hydrogeology
- Chapter 14 – Archaeological, Architectural, and Cultural Heritage

- Chapter 15 – Landscape and Visual
- Chapter 17 – Material Assets
- Chapter 18 – Major Accidents and Disasters
- Chapter 19 – Cumulative Effects and Environmental interactions

8.10.3. The methodology is described in section 10.2. This includes details of relevant legislation and guidance at section 10.2.2. I note that no difficulties were reported in preparing this technical chapter.

Baseline

8.10.4. The subject site is currently undeveloped, comprising majority brownfield land and a smaller proportion of greenfield land. Lands to the north, north-east and west are generally developed in line with the typical nature of the wider business park campus. Lands to the south, and to a lesser extent to the east and west, are in residential and agricultural/commercial use. Casement Aerodrome/Baldonnell Airport is proximate to the site.

8.10.5. The baseline environment is described in terms of population and employment, human health, tourism, land use and amenities, community and recreational facilities, schools, and healthcare facilities. This includes the Clondalkin Village Electoral Division (ED) and Statistical Area (SA).

8.10.6. Within the ED and SA, population increased by 2.8% and 7.8% respectively between 2016 and 2022. The percentage of people in work in the ED was 60.4% with administrative and secretarial occupations representing the greatest employment generator and commerce/trade represents the largest source of employment at 28.1%.

8.10.7. With regard to human health, approximately 81.6% and 76.9% of the population of the ED and SA respectively perceive themselves as being in very good or good health. The site's location within a business campus is such that there are few tourist destinations in the immediate area, although there are a number of hotels nearby. In terms of community facilities and recreation, there are golf clubs and GAA clubs nearby and the Grand Canal Greenway is to the north. Community centres, schools, healthcare facilities and churches are in the nearby larger population centres such as Peamount, Newcastle, Rathcoole, Clondalkin, and Tallaght.

Potential Effects

8.10.8. The EIAR identifies the potential for a range of environmental effects on population and human health. Likely significant effects in the absence of mitigation, as identified in the EIAR, are summarised in the table below.

Project Phase	Potential Effects
Do Nothing	No construction, operational, or decommissioning effects would occur. The campus would continue to operate as is but without potential for additional cloud computing capacity. There would be no additional employment opportunities and no subsequent economic benefits at local, regional or national level.
Construction	<u>Population</u> Additional direct employment during construction phase of 800 jobs during the 27 month construction period and potential indirect employment arising to service construction workers (e.g. catering) would be a positive, significant, and short term effect. Traffic is considered in detail in Chapter 6 (Traffic and Transport). Traffic during the Construction Phase of the Proposed Development is expected to result in negative, not significant, and short-term effects. The overall construction effects on population are considered to be positive, significant, and short term due to employment and the lack of significant traffic impacts. <u>Human Health</u> In terms of air, noise and vibration, no significant and effects are anticipated as a result of construction traffic. Noise and vibration effects due to construction are anticipated as being negative, not significant and short term to negative, significant - very significant and short term. Further detail is provided in Chapter 9 (Noise and Vibration) of the EIAR.

	Dust impacts on air quality during construction are expected to be <i>negative, significant, and short term</i>. In terms of major accidents, there is the potential for adverse significant effects – This is set out in detail in Chapter 18 (Major Accidents and Disasters). Amenity, including visual, is considered in Chapter 15 (Landscape and Visual). Overall construction impacts are deemed to be <i>negative, significant, and short term</i>.
Operation	<u>Population</u> There would be a <i>positive, moderate, and long term effect</i> through employment generation and improvements to digital infrastructure. The development would employ 50 staff when operational with wider benefits for the economy and digital transformation. Traffic increases would be minor, resulting in negative, imperceptible, long term effects on the local road network. The provision of active travel is expected to have a <i>positive, significant and permanent effect</i>. This is considered in more detail in Chapter 6. Overall operational effects on population would be <i>positive, significant and long term</i> due to employment and active travel provisions. <u>Human Health</u> In terms of emissions, the development would continue to be bound by IE Licence limitations imposed by the EPA and no adverse significant effects on air quality are anticipated. See Chapter 7 (Air Quality). Operational noise would continue to meet the IE licence limits. A slight increase in noise is predicted at 6 receptors (See

	Chapter 9 (Noise and Vibration), resulting in a <i>negative, slight to moderate, and long term effect</i>. Amenity, including visual, is considered in Chapter 15 (Landscape and Visual). In terms of major accidents and disaster, the operational development is not expected to give rise to any increased risk. This is considered further in Chapter 18 (Major Accidents and Disasters). Overall, the Operational Phase of the Proposed Development is predicted to have <i>negative, significant and long-term effects</i>.
Decommissioning	The potential effects that may be caused by the activities during the decommissioning phase would likely have the same significance rating or lesser than those of the construction phase.
Cumulative	Cumulative effects are set out in detail in Chapter 19 (Cumulative effects and Environmental Interactions). At construction stage, no significant adverse residual effects are anticipated. At operational stage, a direct <i>positive, moderate and long term</i> residual effect is predicted due to the economic and employment opportunities of the development.

Mitigation

- 8.10.10. Construction mitigation measures would be as outlined in Chapter 6, 7, 9, 15 and 18 of the EIAR and no further mitigation measures are proposed for population and human health. Mitigation measures during decommissioning would be similar to the construction phase.
- 8.10.11. Operationally, the development would operate under a revised IE Licence with prescribed monitoring measures set by the EPA. Other operational phase mitigation measures would be as set out in Chapters 6, 7, 9, 15, and 18 of the EIAR.

Residual Effects

8.10.12. Residual impacts are expected to be **direct positive, moderate, and long-term**, due to the economic and employment opportunity associated with the development. No significant adverse effects on human health are anticipated following the implementation of mitigation. Chapter 12 (Water), Chapter 13 (Land, Soils, Geology & Hydrogeology) and Chapter 17 (Material Assets) do not report any adverse, significant residual effects that are likely to result in adverse significant effects on human health. As such, the potential effect of other environmental hazards associated with the three phases of the development would be neutral.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.10.13. I have examined, analysed, and evaluated Chapter 10 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of population and human health. I am satisfied that the Applicant's presented baseline environment is comprehensive and that the key impacts in respect of likely effects on population and human health, as a consequence of the proposed development, have been identified.

8.10.14. Population and human health are considered in more detail in other technical chapters of the EIAR and I have considered the outcomes and recommendations of these relevant technical chapters. Suitable mitigation measures have been proposed that I consider are sufficient to ensure that there would be no significant adverse impacts on population and human health. I would note that a Construction Environmental Management Plan has been submitted as part of the EIAR. In my opinion an updated version should be secured by condition on appointment of a contractor and prior to development taking place. I am also satisfied that there would be no significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

8.10.15. Having regard to my examination of environmental information in respect of population and human health, in particular the Applicant's EIAR, the reports of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect effects on human health and population are, and would be mitigated where relevant, as follows:

- Significant direct negative effects arising for population and human health during the construction and operational phase, largely as a result of noise and air quality (dust) impacts, which would be mitigated by a suite of appropriate measures.

8.11. **Biodiversity**

Issues Raised

8.11.1. The Planning Authority had concerns regarding the loss of green infrastructure. This relates to the corridor travelling through the southern centre of the site that includes a stream and a hedgerow and formed part of the second reason for refusal.

Context

8.11.2. Biodiversity is addressed in Chapter 11 of the EIAR. Relevant appendices include:

- 11.1 - SDCC Biodiversity Objectives of Relevance
- 11.2 - Guidelines for Assessment of Ecological Impacts of National Road Schemes (National Roads Authority (NRA), 2009)
- 11.3 - Scott Cawley ECIA of Campus Plan
- 11.4 - Tables in BCT Guidelines
- 11.5 - Licence to Capture Protected Wild Animals for Educational, Scientific or Other Purposes
- 11.6 - European Sites within 15km
- 11.7 - Photos of Habitats
- 11.8 - NBDC Records
- 11.9 - Amphibian Surveys Results Table
- 11.10 - Record of Roosts
- 11.11 - Bat Roost Potential Features
- 11.12 - Lighting Plan

8.11.3. The methodology is set out in detail in Section 11.2 and is inclusive of a comprehensive list of relevant legislation and guidance. A combined Appropriate Assessment Screening Report and Natura Impact Assessment (Ove Arup June 2024)

was submitted with the application. I have addressed this separately in Section 9 of this report. The scope of the assessment was to identify Key Ecological Receptors (KER), establish ecological zones of influence for each important ecological feature, evaluate ecological resources and features, identify changes likely to affect ecological resources/features and if these would give rise to significant effects, incorporation of ecological mitigation and enhancement, and predict residual effects.

8.11.4. Relevant Zones of Influence are set out in section 11.2.5. Habitat surveys were undertaken on 30 January 2024 with follow up on the 9th May. In terms of fauna, bat scoping assessments were undertaken on the January site visit, assessing the potential for the habitats to support bats. A night time bat walk was completed on 16th April 2024 using bat detection equipment. Further surveys undertaken include amphibian surveys and invasive species surveys. Species records were obtained from the National Biodiversity Data Centre (NBDC) for a 2km radius from the development site. Previous ecological reports were reviewed for additional survey data, desk records, and collation of existing information on the ecological environment.

8.11.5. No difficulties have been reported in compiling the chapter. The EIAR notes that the initial surveys in January 2024 were carried out at a sub-optimal time of year and so repeat site visits were completed in April and May 2024 to ensure habitats and flora could be appropriately identified. The bat surveys are limited to one season (spring) despite guidance of a low-moderate foraging and commuting habitat requiring survey to reflect summer and autumn seasons. The report therefore incorporates previous survey data and bat data collected from nearby planning applications that contain data for the summer months.

Baseline

8.11.6. European sites within a 15km ZOI are identified, the closest being the Rye Water Valley SAC, 5.8km to the north west. European sites have been considered as KERs for the purposes of the EIAR. No nationally protected sites or Annex I habitats are identified within 2km of the site. Ten habitats have been identified within the subject site. These are shown on figure 11.3 of the EIAR and are summarised below:

- Amenity Grassland (GA2)
- Building and Artificial Surfaces (BL3)

- Dry Meadows and Grassy Verges (GS2)
- Hedgerows (WL1)
- Recolonising Bare Ground (ED3)
- Scrub (WS1)
- Ornamental/Non-native Shrub Mosaic (WS3)
- Other Artificial Lakes and Ponds (FL8)
- Treeline (WL2)
- Drainage Ditch (FW4)

8.11.7. Drainage Ditch (FW4) refers to two open channel watercourses within the site. On the southern boundary, the open channel watercourse is much altered, transitions into a culverted watercourse beneath the DC1 building, emerging to the north and connecting to the Baldonnel Stream. The habitat is initially classified as a drainage ditch, but it is noted that other sections of the EIAR refer to it as a watercourse. Due to the existing culvert, the stream's longitudinal connectivity is disrupted. The proposed development seeks to reroute this watercourse to the west as both an open watercourse and culverted.

8.11.8. Aquatic species – No fish species were identified within 2km. No notable aquatic species were noted in the watercourses on site although a three spined stickleback was noted in the watercourse on the northern site boundary. The existing culvert disrupts the stream's connectivity and accelerates flow velocity, making it improbable for large fish to navigate. No evidence of white-clawed crayfish was recorded during the site visit.

8.11.9. Amphibians – No amphibians were recorded during the initial habitat survey, but a single male common frog was recorded during the June 2024 survey.

8.11.10. Bats – Four bat species were recorded on previous surveys during August and September, including Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, and Myotis Bat. Four trees within the site have potential roost features. Habitats suitable for bats (dry meadows and grassy verges, treelines and hedgerows) make up approximately half the area of the site area and connectivity is provided to woodland in the south. The site therefore has low-moderate foraging and commuting habitat.

Records of numerous bat species (Leisler's, common pipistrelle and soprano pipistrelle) have been identified through data searches, desk-based review of previous surveys on the site and surrounding area, and field survey undertaken as part of this application. The assemblage score does not exceed the threshold for county importance.

8.11.11. Birds - Suitable nesting and foraging habitats are present and provide connectivity to the wider landscape, particularly along the south boundary. It is not likely that the site supports populations of Annex I bird species due to constraints on the habitats and there was no evidence recorded or through NBDC of any Annex I bird species using the site.

8.11.12. Invertebrates – No protected species identified.

8.11.13. Other Terrestrial Mammals – Otter, hedgehog, and hare were recorded within 2km of the site, but no evidence was recorded of these species on the subject site.

8.11.14. Invasive Non-Native Species (INNS) - No INNS were identified within the site boundary, but Spanish bluebell (*Hyacinthoides hispanica*) was identified on the existing GIL Campus, approximately 15m from the site boundary.

Potential Effects

8.11.15. The EIAR identifies the potential for a range of environmental effects on biodiversity. Likely significant effects of the development in the absence of mitigation, as identified in the EIAR, are summarised in the table below.

Project Phase	Potential Effects
Do Nothing	The EIAR notes that most of the habitats have been significantly modified. In pockets of semi-natural habitats, the pattern of succession from grassland to scrub to woodland would likely continue. In the absence of development, the land would largely remain under the same management regimes and no significant changes to the habitats within the boundary would occur.
Construction	<u>Designated sites</u>

	The construction phase has the potential to lower water quality. Effects can be described as <i>negative, significant- likely, short term</i>. <u>Habitats</u> Drainage ditch (FW4) – In terms of habitat loss, works to the watercourse have the potential for direct effects that would be <i>negative, slight – moderate, and medium term</i>. Likely indirect effects to birds, bats and other mammals. Changes to hydrology, including diversion of flow would be <i>negative, slight, and short term</i>. Habitat degradation is anticipated to be <i>negative, slight, likely and short term</i>. Dry meadow and grassy verge (GS2) – Direct habitat loss effects would be <i>negative, slight – moderate, and long term</i>. Habitat degradation effects would be <i>indirect, negative, slight, likely, and short term</i>. Hedgerow (WL1) – In terms of habitat loss, direct effects would be <i>negative, slight-moderate, likely and long term</i>. Likely indirect effects to birds, bats and other mammals. Habitat degradation effects would be <i>indirect, negative, slight, likely, and short term</i>. Scrub (WS1) – Habitat loss would result in direct, <i>negative, slight - moderate, likely, long-term</i> effects. Likely indirect effects to birds, bats and other mammals. Habitat degradation effects would likely be <i>negative, slight, likely, short-term</i>. Treeline (WL2) – Habitat loss would likely result in direct, <i>negative, slight - moderate, likely, long-term</i> effects. Likely indirect effects to birds, bats and other mammals. Habitat degradation effects would likely be <i>negative, slight, likely, short-term</i>. <u>Invasive Species</u>
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	No INNS were identified within the Proposed Development site. Medium impact invasive species Buddleia, sycamore and pampas grass were recorded on site. Potential effects can be described as This effect can be described as <i>negative, slight, unlikely, and short-term</i>. <u>Amphibians</u> Direct mortality - Watercourse diversion may result in the direct mortality or injury of small numbers of common frog, confirmed to be utilising this habitat. Smooth newt was not recorded but maybe present. The effect of direct mortality or injury can be described as <i>negative, slight, unlikely, and short-term</i>. This can be considered significant on a precautionary basis. Foraging - The effect of the loss of foraging for amphibians can be described as <i>negative, slight, unlikely, and short-term</i>. <u>Bats</u> Direct mortality - No bat roosts were found on site, but four trees were identified with low bat roost potential. Removal of these trees may result in the loss of small numbers of roosting bats. Effects can be described as <i>negative, slight, unlikely, long term and significant</i> (on a precautionary basis). Foraging - The removal of habitat (grassland, scrub, treeline and hedgerow) will result in the loss of foraging habitat. Effects can be described as <i>negative, slight to moderate, likely, long term and significant</i>. Disturbance - Night working would be limited, and effects can be described as <i>negative, not significant, unlikely and short-term</i>. <u>Breeding birds</u> No Annex I or notable species have been identified or are likely to inhabit the site. There is potential for direct impacts on nesting
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	birds and/or mortality of nesting birds at a local scale, arising from the vegetation clearance during construction. The effect can be described as <i>negative, slight to moderate, short term and significant.</i> Effects from the loss of foraging and breeding habitat can be described as <i>negative, slight, likely, long-term</i>, on the local bird population and would therefore be <i>significant.</i> Effects from disturbance as a result of noise and vibration can be described as <i>negative, slight, likely, temporary</i>, on the local bird population and as such would be <i>significant.</i> <u>Other Mammals</u> In terms of disturbance from foraging/commuting habitat or direct mortality, effects can be described as <i>negative, slight, short-term and unlikely</i>, with the effect considered <i>significant</i> on a precautionary basis. In terms of loss of foraging and commuting habitat, effects can be described as <i>negative, slight and long term.</i> This would be <i>significant</i> on a precautionary basis.
Operation	<u>Designated Sites</u> Impacts would be limited to direct emissions of water and hydrological connections are weak. Effects can be described as <i>negative, not significant, un-likely, and temporary.</i> <u>Habitats</u> Watercourses – Changes to hydrology and diversion of flow would result in effects that can be described as <i>neutral, slight, and long-term and therefore considered not significant.</i> In terms of habitat degradation potential adverse effects relate to spills and increased impermeable surfaces. Effects on surface water quality would be imperceptible. Effects can be described as <i>negative, slight, unlikely, temporary and not significant.</i> With regard to disruption/displacement of species, a step pool

	arrangement is proposed to address changes in levels and slow down flows. These indirect effects can be described as <i>negative, slight to moderate, long-term, and significant.</i> <u>Invasive Species</u> No effects identified. <u>Amphibians, Bats, Breeding Birds and Other Mammals</u> As part of the landscaping plans there is a proposal to enhance habitats for wildlife. This would be achieved by integrating linear features (planting hedgerow), opening a watercourse and inclusion of berms. This effect can be described as <i>positive, significant, likely, and long-term.</i> With regard to bats, whilst the improvements above would apply, disturbance to foraging has also been considered, largely as a result of external lighting. These effects can be described as <i>negative, slight, likely, long term, and significant</i> on the local bat population.
Cumulative	Surrounding lands are largely zoned as 'EE- Enterprise and Employment'. There are several applications and permissions for industrial developments in the vicinity. Should construction occur at the same time there is potential cumulative impacts on water quality in the downstream surface water environment and on disturbance to fauna. These would be temporary and occur at a local geographical scale. Mitigation measures would reduce the magnitude of potential impacts. Cumulative impacts to the Key Ecological Receptors (KERs) could arise. This potential cumulative impact would be significant but temporary and at a local geographical scale. There will be no significant cumulative impacts on downstream European sites or pNHAs.

Mitigation

8.11.16. Mitigation measures would include the implementation of a Construction Environmental Management Plan (CEMP), the application of mitigation contained within the Natura Impact Statement (NIS) and required under Chapter 12 (Water) and Chapter 13 (Land, Soils, Geology, and Hydrogeology), hedgerow/scrub/tree planting, landscaping, works to improve and open up watercourses, and the provision of water features such as attenuation ponds. Pre-commencement bat surveys would be conducted prior to the removal of trees with roosting potential. Foraging habitat would be replaced by re-planting and the landscaping scheme/improvements and nesting boxes would be provided for breeding birds. Works would be scheduled to avoid the nesting/breeding season and best practice measures would be employed to minimise disruption due to noise/vibration and external lighting.

Residual Effects

8.11.17. As set out in Table 11.13 of the EIAR, following the implementation of mitigation measures, there would be no significant negative residual effects on any of the Key Ecological Receptors or habitats.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.11.18. I have examined, analysed, and evaluated Chapter 11 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of biodiversity. I am satisfied that the Applicant's presented baseline environment is comprehensive and that the key impacts in respect of likely effects on biodiversity, as a consequence of the proposed development, have been identified. I note potential significant effects on designated sites. This would be in the absence of mitigation, and I have completed a Stage 2 Appropriate Assessment which is set out in Section 9 of this report. Appropriate mitigation is proposed as part of the Natura Impact Statement that I am satisfied would overcome the potential for significant effects on any European sites.

8.11.19. I note the loss of habitats on site and the works to realign the watercourse. In my opinion, the balance of these works is positive, and currently culverted sections pose a barrier to species movement. Whilst there would be new culverted sections of the watercourse, there would be an overall increase in the extent of open water course on the site and together with the proposed landscaping scheme, riparian buffers and

the tree planting, I find that mitigation measures have been proposed which I consider are sufficient to ensure that there would be no significant adverse impacts on biodiversity, having regard to habitats and the species considered in the technical chapter, including bats, breeding birds and other mammals such as badgers. I am also satisfied that there would be no long-term significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

8.11.20. Having regard to my examination of environmental information in respect of biodiversity, in particular the Applicant's EIAR, the reports of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect effects on biodiversity are, and would be mitigated where relevant, as follows:

- Negative, significant-likely, short term impacts on water quality to designated sites.
- On a precautionary basis, there is potential for significant impacts on the direct mortality of amphibians, bats, breeding birds and other mammals during the construction phase. In terms of foraging, there are potential significant effects on bats, breeding birds and other mammals and further significant impacts in terms of disturbance for birds.
- At operational stage, there would be potential significant effects with regard to disruption/displacement of species as a result of changes to the watercourse and the introduction of a step pool to address changes in levels.
- At operational stage there is the potential for significant adverse effects on the local bat population due to disturbance to foraging as a result of external lighting.

8.12. Water

Issues Raised

8.12.1. The Water Services Department recommended seeking Further Information on surface water including the provision of green roofs, location and capacity of surface water attenuation, and the submission of a report detailing the different surface types

proposed, run off coefficients and required/proposed attenuation. Concerns were raised regarding the provision of development in a flood risk zone as well as objections to the proposed stream redirection and culverting works.

- 8.12.2. Observations on the appeal note that climate change has resulted in water scarcity risks with low rainfall resulting in generally warmer air temperatures and as such a higher level of cooling requirement in data centres. It is stated that the development should be assessed against Article 4 of the Water Framework Directive to ensure that a grant of planning permission would not cause a deterioration of the status of a body of surface water and that water consumption levels need to be assessed against up to date climate modelling and forecasting, with the EIAR evaluating potential impacts when supplies are low.

Context

- 8.12.3. Chapter 12 of the EIAR addresses the matter of potential direct and indirect effects on water quality and quantity associated with the proposed development. Construction phase effects would be associated with activities such as site clearance, excavation, and operation of construction machinery and tools. Operationally, the potential water quality and quantity effects associated with drainage and stormwater discharge monitoring under the current IE Licence have been assessed.
- 8.12.4. Section 12.2 of the EIAR sets out the assessment methodology which includes details of relevant legislation, planning policy and guidance, including the Water Framework Directive (WFD) (2000/60/EC) (as amended) and the Habitats and Wild Fauna and Flora Directive (92/43/EEC) (as amended). This chapter should be read in conjunction with my Appropriate Assessment and the Natura Impact Statement.
- 8.12.5. Data sources employed in the completion of Chapter 12 include the following:
- EPA Unified GIS Application (<https://gis.epa.ie/EPAMaps/> accessed March 2024) for water quality and river ecological monitoring results.
 - River Basin Management Plan (RBMP) for Ireland 2018 -2021, Cycle 2 (Department of Housing, Planning and Local Government, 2018).
 - Draft RBMP for Ireland 2022-2027, Cycle 3 (Department of Housing, Planning and Local Government, 2023).
 - Liffey and Dublin Bay Catchment Summary WFD Cycle 3 (EPA, 2021).

- Liffey_SC_090 Sub-Catchment Summary WFD Cycle 2 (EPA, 2018).
- Water quality and Q-value temporal monitoring at site RS09G010600 within Liffey_170 (<https://www.catchments.ie/data> accessed March 2024).

8.12.6. The EIAR is supplemented by a Flood Risk Assessment (Appendix 12.1) and a Hydromorphology Assessment (Appendix 12.2). I have read and considered both in my assessment.

Baseline

8.12.7. Climate – Ireland is experiencing changing rainfall patterns and higher levels of precipitation with some evidence pointing towards an increase in winter rainfall and a decrease in summer rainfall. The EPA (2019) Irish Climate Futures: Data for Decision Making report notes the more likely and frequent nature of weather extremes. Precipitation changes are of importance when considering the new stream alignment as extreme flows or rapid changes in flow velocity or runoff quality may impact aquatic habitats.

8.12.8. Surface Water - The site is within the Liffey and Dublin Bay WFD Catchment. The River Liffey and Dublin Bay catchment contains the largest population of any catchment in Ireland and is densely populated, heavily urbanised and industrialised. The site has an impact pathway with the WFD Sub Catchment: Liffey SC 090 and WFD Sub-Basin Liffey 170 (EPA, 2021). The main waterbody within Liffey_170 is the Griffeen River which flows about 500m to the west of the site. The Baldonnel Stream flows about 120m to the east of the site (Figure 12.3 of the EIAR). There is another stream originating at the northern boundary of the site that flows into the Griffeen River.

8.12.9. Within the site there is an open channel watercourse that is partially culverted beneath the existing DC1 building. This watercourse emerges from the northern side of the site and flows in a northerly direction, ultimately connecting to the Baldonnel Stream.

8.12.10. WFD Waterbody Risk and Status – The site discharges into Liffey_170 WFD river waterbody which is classified as ‘At Risk’. The ecological status of this waterbody has degraded from ‘Moderate’ in 2013-2018 to ‘Poor’ in 2016-2021. Chemical surface water status has changed from ‘Good’ to ‘Pass’. Significant pressures are mainly urban wastewater, combined sewer overflows and urban runoff, and diffuse sources runoff.

- 8.12.11. Protected Areas - There are no drinking water abstractions associated with surface waters within the catchment. There are no designated economically significant aquatic species hydrologically connected to the site. There are no designated nutrient sensitive water sites connected to the site. There is a hydrological connection to the downstream SPA and SACs of Dublin Bay. The receiving WFD water body, Liffey_170, is approximately 20 km away from these protected areas.
- 8.12.12. Water Quality - The most recent River Q values indicated 'unsatisfactory poor' ecological conditions in Lucan in June 2022 (EPA River Quality Surveys: Biological, 2022).
- 8.12.13. Existing Pressures - An IE Licence regulating emissions to stormwater under the Licence Registration Number P1189-01 was granted on the 16th May 2023. There are no direct process emissions (i.e. trade effluent) to surface waters from the installation.
- 8.12.14. Existing discharges consist of wastewater from domestic uses, canteen waste and condensate from internal air handling units. Emissions are discharged to the public foul water sewer network at two points and treated at Ringsend Wastewater Treatment Plant. Existing stormwater management ensures no emissions to groundwater. Storm water discharges include storm water from roofs, the road network, transformer bunds and hardstanding areas. Interceptors are in use.
- 8.12.15. Groundwater - The site is located within the Dublin Groundwater Body (GWB, European Code IE_EA_G_008). For the GWB the majority of flow will be a rapid flow in the upper weathered zone but flow in conduits is commonly recorded at depths of 30 to 50m below ground level. There is relatively low average permeability. Flow is towards the coast and the River Liffey. The overall status of the GWB is good and is currently under review. There are no designated environmentally protected sites within the site that would be considered sensitive to groundwater contribution.
- 8.12.16. Flood Risk – Coastal flooding has been ruled out given the site location. Previous flooding events (1 no.) have been recorded 1km north west of the site. There are no records of flooding within the site.
- 8.12.17. The Eastern Catchment Flood Risk Assessment and Management Study flood maps are considered outdated and as such, hydrological and hydraulic modelling were undertaken to update the flood maps. Results indicate that the site is at risk of fluvial

flooding during the 1 in 100 year (or 1% AEP) and 1 in 1000 year (or 0.1% AEP) flood events. These are classified as Flood Zone A and B respectively and are associated with the small watercourse flowing south to north through the site

8.12.18. In terms of surface water flooding topography indicates that there are no significant ponding areas and no overland flows coming into the site and as such significant pluvial flooding risk is low. The site is not underlain by any regionally important aquifer and groundwater flood maps do not indicate any groundwater flood extents at the site and therefore low risk.

Potential Effects

8.12.19. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
Do Nothing	In a 'Do Nothing' scenario the site would remain as is and none of the construction, operational or decommissioning effects set out in this Chapter would occur, potentially resulting in an overall neutral effect.
Construction	<u>Flood Risk</u> • Potential Effects on hydraulic structures through realignment of the open channel, including sedimentation, erosion, scouring, streambank destabilisation, new flow paths. • Altered hydraulic characteristics due to modifications to the watercourse channel dimensions. • Risk of flooding to open trenches during excavations, and associated health risks. • Risk of increased flooding to receptors adjacent to the watercourse.

	• Altered hydrological regime due to an increase in discharge because of dewatering activities during construction. • Increased run off rates and flood levels due to temporary increase in hardstanding and soil compaction. • Increased flood risk due to excess backfill material. • Disruption to local drainage systems. Potential effects would be <i>negative, slight and short-term</i>. <u>Water Quality</u> The EIAR considers risks to SPA/SAC sites, watercourses, and surface WFD waterbodies. Effects overall are predicted to be <i>negative, slight and short-term</i>. <u>Hydromorphology</u> Risks have been identified with regards to changes in flow regime which would be classed as <i>long term and insignificant</i>. Risks associated with changes to waterbody morphology (depth, width, structure, substrate) and changes to riparian zone structure, would be <i>long term and significant</i>. The WFD waterbody has a low sensitivity and the hydromorphology supporting element has a low sensitivity. The potential effect on hydromorphology is large but the importance of the watercourse is low, and effects can be classed as <i>negative, slight / moderate and long-term effects</i>. <u>Groundwater</u> Risks have been identified regarding the lowering of groundwater during earthworks (<i>negligible</i>) and the risk to surface water from discharge of removed groundwater (<i>negative, slight, short-term</i>). No significant effects are predicted.
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Operation	<u>Flood Risk</u> Surface water runoff from the drainage systems will be limited to greenfield runoff rates and thus the potential effect on flood risk is <i>imperceptible</i>. The existing culverted watercourse will be rerouted. Culverts will have security screens to prevent trespassing. Screens could accumulate debris, causing partial blockage and potential flooding. Modelling of the blockage scenario has shown that the increase in levels due to a 33% blockage of the culvert causes 25mm increase in flood level upstream of the site which is not expected to cause increased flood risk to the upstream property. The effect of the proposed culverts and stream diversion on water levels outside the site boundary has been assessed by hydraulic modelling. In the proposed scenario, water levels upstream of the site are locally reduced on average by 100mm compared to the existing conditions, returning to existing scenario levels 115m upstream. Downstream levels increase locally by 30mm directly downstream and return to existing levels 75m downstream of the site. This increase is local only and occurs during the 1%AEP +20% climate change allowance. There is no impact during the 1% AEP. <u>Water Quality</u> There would be an increase in impermeable surfaces due to car parks and building footprints. Two attenuation ponds are proposed and run off rates would be maintained to greenfield rates. Effects would therefore be <i>imperceptible and long-term</i>. <u>Hydromorphology</u> The altered stream would result in changes to hydromorphology. As with construction, the potential effect on
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	hydromorphology is large but the importance of the watercourse is low, and effects can be classed as <i>negative, slight / moderate and long-term effects</i>. <u>Groundwater</u> Risks are related to the lowering of groundwater due to permanent drainage beneath the buildings and potential pollution of the water environment. The significance of these effects is considered to be <i>negligible</i>.
Decommissioning	Likely to be similar to the construction phase. No significant effects anticipated.
Cumulative	At construction phase, the screened in projects in combination with the proposed development are expected to be <i>imperceptible and short-term</i> and no significant adverse effects will arise. Operationally, the site and area are well served by a comprehensive water services network and impact on water supply and foul drainage capacity will not be adversely affected. In relation to surface water, SUDS measures have been optimised to ensure a sustainable runoff rate to the Griffeen River, taking account of the existing and permitted developments which also rely on the same river system for controlled surface water runoff. No anticipated significant effects are reported.

Mitigation

8.12.20. Construction phase mitigation is presented in the form of a CEMP as well as adherence to industry good practice and guidance. Appointed contractors would be required to prepare and implement a Surface Water Management Plan (SWMP) to protect the water environment during construction. The SWMP would include all mitigation measures recommended in Chapter 12, in addition to water related mitigation measures recommended in Chapter 11 (Biodiversity) and Chapter 13

(Land, Soils, Geology, and Hydrogeology). The SWMP will set out control and management measures for avoiding, preventing, or reducing any significant adverse impacts on the surface water environment during the Construction Phase of the Proposed Development and will include measures relating to Pollution Incident Response Plan, Construction Compound management, management and storage of fuels and materials, control of sediment, use of concrete, management of vehicles and plant (including wheel washing), and suitable monitoring measures.

8.12.21. Specific mitigation measures would include works to manage flooding, including a flood warning and management plan amongst other measures, surface water quality monitoring, measures to prevent the release of hydrocarbons and contaminants, and measures for the protection of water courses.

8.12.22. Operational phase mitigation would include measures for surface water quality and flooding management. This would ensure that run off rates would not exceed greenfield rates, with water quality being managed through controlling the volume and treating discharge in line with SUDS requirements. Maintenance of the drainage system would be conducted in line with the IE licence as required by the EPA., including inspection of culvert screens to prevent debris accumulation.

Residual Effects

8.12.23. In terms of the construction phase, residual effects would be as follows:

- Flood Risk - The potential effect due to an increased risk in in-channel flood levels of up to 50mm is reduced through design and mitigation measures to ***imperceptible and short-term***.
- Water Quality – Effects on surface water quality would be insignificant. The WFD waterbody has low sensitivity and following mitigation, effects are anticipated to be ***imperceptible and short term***.
- Hydromorphology - Design measures would improve the hydromorphological condition and create two sections of open channel flow with improved vegetation and substrate conditions. There are opportunities for lateral floodplain connectivity through introduction of a floodplain bench to the watercourse design. Culverts would have design measures to limit biodiversity impacts. Following mitigation effects would be ***imperceptible and short-term***.

- Groundwater – Likely residual effects would be ***imperceptible and short-term***.

8.12.24. Operational residual effects would be as follows:

- Flood Risk – A justification test is required due to the location partly within Flood Zone A (See FRA). The site is zoned for enterprise and employment related uses, and the proposed use is compatible with the objective. The development would not increase flood risk to other sites and measures are included to mitigate risk of flooding to people, property and the economy. Residual risks are managed to acceptable levels through the mitigation measures. The development satisfies the criteria of the Justification Test. No likely significant residual effects on flood risk are anticipated as a result of the operation of the development and the modelling undertaken has demonstrated no significant increases in flood levels due to the proposals offsite.
- Water Quality – The development would need to meet the monitoring requirements of the IE licence, which will be reviewed to include the development. Site surface water drainage would be managed by controlling and treating the discharge in line with SuDS principles, and regular inspections of the security screens are done for debris accumulation. No ***significant residual*** effects are anticipated.
- Hydromorphology – Design measures of improved channel vegetation, substrate condition, bank structure and stability, bank vegetation and floodplain connectivity are such that effects would be reduced to ***imperceptible and short-term***.
- Groundwater – No significant operational effects are likely.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.12.25. I have examined, analysed, and evaluated Chapter 12 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of water. I am satisfied that the Applicant's methodology is appropriate and that the presented baseline environment is comprehensive and that the key impacts in respect of likely effects on water (quality, quantity, flood risk), have been identified. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of

the potential impacts and provides a suitably comprehensive range of mitigation measures to address these impacts.

- 8.12.26. I note the comments from the Planning Authority (Water Services) regarding surface water and the request for additional information regarding green roofs, attenuation (location and capacity), and the different surface types proposed. In addition to the EIAR I have considered the Drainage and Watermain Planning Report submitted with the application. In my opinion, this report provides sufficient information with regards to surface water drainage and proposed SuDS measures which include direct percolation to ground with extreme events captured by swales and ponds. The scheme would also make use of porous paving and attenuation porous paving and attenuation. Having reviewed the drawings submitted with the application, I am satisfied that sufficient information has been provided in terms of attenuation volumes and the Drainage and Watermain Planning Report provides the adopted run-off coefficients. On that basis I am satisfied that the relevant information has already been provided.
- 8.12.27. In terms of the works to realign the stream, I note from the Applicant's grounds of appeal that diverting the watercourse enabled the creation of an improved watercourse rather than culverting it and developing on top. It is stated that the watercourse has been designed following consultation with the Office of Public Works (OPW) and Inland Fisheries Ireland (IFI) and follows best practice guidelines as far as possible, with provisions for a 10m riparian buffer on both sides and parts of the existing watercourse de-culverted. I note that a hydromorphological survey was carried out with IFI who provided recommendations for the design of the open stream and that the proposed works would serve to improve the WFD hydromorphological status of the watercourse from poor to moderate. Overall, I am satisfied that works to the stream would be broadly beneficial and would not have any significant adverse impacts.
- 8.12.28. With regards to flood risk, I have considered the Site Specific Flood Risk Assessment provided in Appendix 12.1 of the EIAR in addition to the results of the wider Chapter 12 assessment. The majority of the site is in Flood Zone C with a portion of the eastern part of the site in Flood Zone B and a very small portion along the existing stream alignment being in Flood Zone A. Flood mitigation measures have been developed to protect the development from flooding. Central to this are the

watercourse realignment works. Importantly, the new watercourse alignment and culverts are designed to convey the 1 in 100-year event (1%AEP) with climate change allowances and, where the watercourse is open, minimum of 300mm freeboard to the bank. The measures would result in small local reduction in flood levels upstream and a reduction in flood risk within the site.

- 8.12.29. Finished floor levels have been raised above the 1%AEP event with a 30% allowance for climate change and an appropriate freeboard and the development is set back from the open sections of the watercourse. Impacts of the development on flood storage, conveyance and surface water run-off have also been assessed, with no impact detected on properties upstream and downstream of the site.
- 8.12.30. The proposed development is a 'highly vulnerable development' with regards to flooding and as such a Justification test has been carried out with the development satisfying the relevant criteria. As such, I agree with the outcome of the EIAR and I am satisfied that potential risks relating to flooding can be managed and mitigated to acceptable levels in compliance with relevant guidance.
- 8.12.31. Regarding rainfall, I note that Dublin rainfall figures provided by Met Éireann have informed the study and a 40% allowance has been made for climate change which is above the standard 20%. Water usage at the site has also been considered and whilst I note concerns in the observations that low rainfall results in generally warmer air temperatures and as such a higher level of cooling requirement in data centres, the application documents make clear that water is not used for cooling purposes and low daily water use is predicated. Furthermore, I note that Uisce Éireann have raised no objections to the proposed development.
- 8.12.32. Chapter 12 of the EIAR has considered the development in light for the Water Framework Directive and I note that the proposal would not cause a deterioration in surface water or groundwater quality status, nor would it compromise the ability of any surface water or groundwater body to meet the objectives of the WFD. I am satisfied that there are not likely to be any significant discharges of pollutants that would result in a deterioration of the chemical status of any surface water or groundwater body and the ecological status of surface waters is not likely to be significantly affected.

Conclusion: Direct and Indirect Effects

Having regard to my examination of environmental information in respect of water, in particular the EIAR provided by the Applicant, the reports of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I do not consider that there are any significant direct or indirect water effects.

8.13. Land, Soils, Geology, and Hydrogeology

Issues Raised

- 8.13.1. No issues raised by any parties to the appeal in the context of the EIAR.

Context

- 8.13.2. Chapter 13 of the EIAR evaluates the likely significant effects on land, soils, geology and hydrogeology. Potential construction phase effects are associated with activities such as earthworks and groundwater control measures to create a development platform and construct foundations and underground services. Operational effects associated with permanent drainage have been assessed.
- 8.13.3. Section 13.2 of the EIAR sets out the operative policy and guidance. The study area for this technical chapter extends a 2km radius from the site boundary in line with the Guidelines for the Preparation of Soil, Geology and Hydrogeology Chapters of Environmental Impact Statements (IGI, 2013). An initial assessment presents a description of the baseline conditions informed by a desk study including past and present land use in addition to a detailed description of the nature of the ground conditions beneath the site.
- 8.13.4. Direct and indirect site investigations provide site specific data to refine a conceptual site model which is a summary of geological conditions beneath the site. This provides a basis for the assessment of the likely significant effects, appropriate mitigation measures and residual effects. The desk study consulted the following information sources:
- Government of Ireland and Tailte Eireann, National Geospatial Data Hub [online], GeoHive Hub, (GoI & ET, 2024)
 - Aerial photography (Google and Bing)
 - Geological Survey of Ireland (GSI) (GSI, 2024) Geological Maps

- Geological Survey of Ireland, Memoirs
- Ireland Topographic Maps (ITM, 2024)
- EPA maps [online] (EPA, 2024)
- EPA, Office of Radiation Protection and Environmental Monitoring, Historic and Operational Mines project 2020-2021 (EPA, 2023)
- Department of the Environment, Climate and Communications, Mineral Exploration and Mining maps, (DECC, 2024)

8.13.5. A site walkover was conducted in December 2023 for verification purposes. A number of previous ground investigations took place in 2011 and 2019 covering areas of the site in addition to the wider GIL Campus. In terms of hydrological assessment, the assessment uses the UK Environment Agency Tier 1 Analytical Tools Excel model to calculate a radius of influence and inflows to excavations/or drainage as a result of groundwater level reduction due to implemented control measures.

Baseline

8.13.6. The baseline considers the regional environment in addition to the site specific environment. The site was undeveloped until the late 2000's when the DC1 and DC2 development were built. The land was used for temporary storage and car parking, with some parts remaining undeveloped. There are five soil heaps in the southern part of the site, comprising land stripped during the 2011 and 2013 development.

8.13.7. Ground elevation rises gently from 75mOD in the north to 85m OD in the south. Modifications may have taken place to enable, including cut and fill and site levelling to create level areas suitable for intended use such as car parking or storage. Completed site investigations indicate the presence of reworked natural ground underlying the areas of the car parking gravel surface.

8.13.8. Soils underlying the site are till derived from limestones comprising poorly drained subsoils. No bedrock outcrops and associated soils are mapped within the site. Tills encountered during investigations were described as soft to firm grey and brown sandy gravelly clay, and firm to stiff greyish brown slightly sandy and very gravelly clay. Thickness varied from 1.2m to 4.2m. Investigations also encountered topsoil and made ground. Full details are provided in table 13.10 of the EIAR.

- 8.13.9. GSI bedrock mapping describes the site as underlain by the Upper Carboniferous Limestone, known as the Lucan formation which is generally not considered to be susceptible to karst. No soft soils are mapped and there are no records of any landslide events. There are no geological heritage areas, no historic or active mines/quarries, and the site has a moderate crushed rock aggregate potential.
- 8.13.10. Land contamination assessments did not identify unacceptable risks to human health in a commercial land use scenario. Exceedances of arsenic were identified in made ground and underlying till, and cyanides in made ground. Elevated concentrations of arsenic may be indicative of elevated background concentrations of naturally occurring arsenic.
- 8.13.11. The site is underlain by an important local aquifer. Groundwater vulnerability is high, with the south western corner being extremely high due to shallow soils/subsoils over the bedrock. There are no groundwater abstractions within the site. Groundwater was encountered with a minimum and maximum depth of 1.5m and 4.8m. Rapid groundwater flow was recorded on the western boundary of the site. Hydrology is covered in more detail in Chapter 12 (Water).

Potential Effects

- 8.13.12. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
Do Nothing	The current baseline would represent the 'Do Nothing' scenario as required under the EC Guidance. A conservative approach would be to assume no major changes to the baseline condition over time.
Construction	Table 13.5 of the EIAR details the works required to undertake the development as well as details of works completed to date, such as ground investigations and soil sampling. Construction phase effects would likely be associated with the following: Removal of mineral resources due to earthworks (<i>negligible and imperceptible</i>).

	• Earthworks resulting in ground instability (<i>negligible and imperceptible</i>). • Mobilisation and exposure to contaminants during earthworks (<i>negligible and imperceptible</i>). • Lowering of groundwater level during earthworks (<i>negligible and imperceptible</i>). • Pollution of water environment due to earthworks (magnitude of effect is <i>small adverse</i> and the significance would likely be <i>negative, slight and short term</i>). As such, no significant effects are predicted at construction phase.
Operation	The operational phase would be associated with potential effects on geological and hydrogeological attributes. This would include: • Exposure to contaminants during Operational Phase (<i>negligible and imperceptible</i>). • Lowering of groundwater level due to permanent drainage beneath proposed buildings (<i>negligible and imperceptible</i>). • Pollution of water environment (<i>negligible and imperceptible</i>). As such, no significant effects are predicted during the operational phase.
Decommissioning	Effects would likely be similar to the construction phase. No significant effects anticipated.
Cumulative	No significant adverse/negative cumulative effects are anticipated at either construction or operational stage.

Mitigation

8.13.13. During the construction phase, mitigation measures would be implemented through the application of best practice measures and the implementation of a CEMP, which is included within the EIAR and would be updated by the appointed contractor. The CEMP would include measures to control all excavations, mineral resources, dust generation, groundwater infiltration and generation of run-off. Excavations in made ground would be monitored, and areas of contamination would be identified, segregated, and disposed of appropriately. The CEMP would cover management of materials including storage and importation, and the control of water. Good construction management practices would be employed to minimise the risk of transmission of hazardous materials as well as the pollution of the diverted watercourse and groundwater. No specific operational phase mitigation measures are proposed.

Residual Effects

8.13.14. Following the implementation of mitigation, no significant negative residual effects are anticipated.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.13.15. I have examined, analysed, and evaluated Chapter 13 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of land, soils, geology, and hydrogeology. I am satisfied that the Applicant's presented baseline environment is sufficiently robust and that the key impacts in respect of likely effects on land, soils, geology, and hydrogeology, as a consequence of the proposed development, have been identified. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides a suitably comprehensive range of mitigation measures to address these impacts.

8.13.16. The main construction phase activities with the potential for impacts include run-off percolating to ground, contaminants in surface water, earthworks, excavations, land contamination, removal of subsoil, stockpiling, storage of hazardous materials and export of materials. The CEMP sets out requirements and standards that must be met during the construction stage and will include the relevant mitigation measures

outlined in the EIAR and subsequent planning conditions. Best practice measures would be employed throughout.

Conclusion: Direct and Indirect Effects

8.13.17. Having regard to my examination of environmental information in respect of land, soils, geology, and hydrogeology, in particular the EIAR provided by the Applicant, the reports of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I do not consider that there are any significant direct or indirect land, soils, geology, and hydrogeology effects.

8.14. Archaeology, Architectural, and Cultural Heritage

Issues Raised

8.14.1. The Planning Authority are of the view that the proposed development would be visible from the Baldonnell Road, and with regard to Protected Structures, advised that the Applicant should submit visual photomontages showing the proposed development in the context of RPS 184 to ensure that the proposed development does not detract from the setting of the church.

Context

8.14.2. Chapter 14 of the EIAR addresses archaeology, architecture, and cultural heritage. Potential effects during the construction phase could result from construction activities such as earthmoving activities, topsoil removal, trench excavation and installation of services. During the operational stage, no further effects are anticipated with regard to archaeology.

8.14.3. A detailed methodology is set out at Section 14.2 of the EIAR and includes relevant legislation and guidance. A field survey was undertaken in April 2024. Desktop assessments were undertaken using the following resources:

- Record of Monuments and Places for Dublin (RMP)
- Sites and Monuments Record for Dublin (SMR)
- National Museum of Ireland Topographical Files
- Townland search of the annual Excavations bulletin

- All three editions of the OS 6" scale sheets
- Down Survey map for Co. Dublin
- South Dublin County Development Plan 2022-2028
- National Inventory of Architectural Heritage (NIAH)
- Aerial photographs (Ordnance Survey of Ireland osi.ie)
- Bulletin (excavations.ie)

Baseline

- 8.14.4. The townland boundary for Aungierstown/Ballybane and Kilbride survives as an earth bank with trees and vegetation and runs through the site. The EIAR notes that nothing of archaeological significance was found during the development of DC1 and DC2. During the field survey, no above ground features of potential archaeological merit were observed.
- 8.14.5. A number of recorded sites are located in the surrounding area, providing evidence of prehistoric, early medieval and medieval settlement in the area. The closest archaeological monument is 132m from the south east corner of the site and is listed in the Record of Monuments and Places for Dublin as a castle (DU021-004). Further recorded archaeological monuments are listed in table 14.1 of the EIAR.
- 8.14.6. There are no Protected Structures within the site boundaries but there are four within the surrounding area:
- RPS 180 – Castle Bagot House
 - RPS 182 – Kilmactawley Church and Graveyard
 - RPS 184 – Kilbride Church and Graveyard
 - RPS 188 – Casement Aerodrome
- 8.14.7. Kilcarbery House is registered on the National Inventory of Architectural Heritage (11209001), as is Castle Bagot House (11208010) and Casement Aerodrome (11208028).
- 8.14.8. There are a number of recorded sites in the surrounding landscape. These are set out in detail in Table 14.1 of the EIAR. The nearest recorded archaeological monument is

located 132m from the southeast corner of the site and refers to a castle listed on the Record of Monuments and Places for Co. Dublin under reference DU021-004.

- 8.14.9. Several archaeological investigations in Grange Castle International Business Park and Profile Park since the 1990s have revealed a large amount of previously unknown archaeological sites and heritage. The density and chronologically variable nature of the sites is an indicator of the potential for archaeological features to be present in the subject lands

Potential Effects

- 8.14.10. Likely significant effects in the absence of mitigation, as identified in the EIAR, are summarised in the table below

Project Phase	Potential Effects
Do Nothing	A 'Do Nothing' scenario would not result in any effects, the site would remain as is and no works would take place.
Construction	Construction would involve substantial earthworks and excavation. Although the site doesn't include and recorded archaeological monuments and the field survey did not potential archaeological monuments, the site has high archaeological potential given the density of archaeological sites within the surrounding area. There is therefore the potential for direct negative, significant and permanent effects to arise. No direct or indirect significant effects are anticipated on architectural or cultural heritage due to the absence of such sites within the subject site boundary and the visual screening that would be provided to nearby sites.
Operation	No significant effects predicted. The EIAR considers the visual impact on buildings and structures of archaeological, architectural, and cultural heritage significance to be negligible.
Decommissioning	No new significant negative effects would be anticipated.
Cumulative	No significant negative cumulative effects are likely.

Mitigation

- 8.14.11. Construction phase mitigation is proposed in two phases, pre-construction and construction. The pre-construction phase mitigation would involve a comprehensive geophysical survey to be completed on the undisturbed greenfield land that will identify where anomalies exist, with subsequent investigation of anomalies by way of a comprehensive programme of archaeological test trenching undertaken by a suitably qualified archaeologist licensed by the Department of Housing, Local Government and Heritage.
- 8.14.12. Test trenching will determine if sub-surface archaeological features are present and the extent to which they may be affected by construction works. Should archaeological features be exposed during testing then further consultation with the archaeological staff of the National Monuments Service, Department of Housing, Local Government and Heritage would take place. Should archaeological heritage be uncovered, the requirements of the National Museum of Ireland will be implemented. Additional measures proposed include a comprehensive photographic and descriptive record of the townland boundary extending north-south through the site, to be undertaken by the archaeologist contracted to undertake the test excavation
- 8.14.13. Construction phase mitigation would involve monitoring of all topsoil removal operations by a qualified archaeologist. An archaeologist would also be present to record the removal of the townland boundary and will require an excavation licence for archaeological monitoring (with allowances made of application timeline). The archaeologist shall be empowered to halt the development if buried archaeological features or finds are uncovered and if remains are encountered then they would be protected by the National Monuments legislation with further work on the site requiring consultation with the archaeological staff of The National Monuments Service. The archaeologist will be provided with appropriate finance and time to facilitate any excavation or recording of archaeological material. All excavations would be undertaken in compliance with any measures that the National Monuments Service and the National Museum of Ireland deem appropriate and a report will be submitted on completion of monitoring.
- 8.14.14. No operational or decommissioning phase mitigation measures are required.

Residual Effects

8.14.15. Following the application of the recommended mitigation, no significant residual effects have been identified.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.14.16. I have examined, analysed, and evaluated chapter 14 of the EIAR and all of the associated documentation, submissions, and observations on file in respect of archaeology, architecture, and cultural heritage. I am generally satisfied with the Applicant's presented baseline information and that the key impacts in respect of likely effects on archaeology and cultural heritage have been identified.

8.14.17. On the matter of the Planning Authority's request that the Applicant should submit visual photomontages showing the proposed development in the context of RPS 184 to ensure that the proposed development does not detract from the setting of the church I am of the view that this has been considered in the Applicants submission and View 2 from the photomontage has been provided. In my opinion this demonstrates the significant separation distance and the reduced scale of the building owing to perspective where it sits below the adjoining treeline and is viewed within the wider context of the business park. In my opinion, the development would not have any adverse impact on the setting of the Protected Structure.

8.14.18. I note the response from the Department of Housing, Local Government, and Heritage. The Department partially agrees with the recommendation in the EIAR with regards to geophysical surveys but considers an Archaeological Impact Assessment (including geophysical survey and archaeological test excavation), should be carried out as Further Information. In my view, having regard to the baseline condition and the recommendations set out in the EIAR, this matter can be suitably addressed by way of pre-commencement conditions, incorporating the mitigation and measures recommended in the EIAR. On that basis I find that appropriate conditions and the mitigation measures proposed would be sufficient to ensure that there would be no significant adverse impacts on archaeology, architecture, and cultural heritage, and I am satisfied that there would be no significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

8.14.19. Having regard to my examination of environmental information in respect of archaeology, architecture, and cultural heritage, in particular the EIAR provided by the Applicant, the view and report of the Planning Authority, and the submissions and

observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect impact is, and would be mitigated where relevant, as follows:

- Direct ***negative, significant and permanent*** effects on archaeology during the construction phase as a result of earthworks and excavation.

8.15. Landscape and Visual

Issues Raised

- 8.15.1. Whilst no specific issues were raised in the context of the EIAR, the Planning Authority consider that the development fails to secure a high quality design approach that reduces massing and visual impact due to the long unbroken facades. The Planning Authority considered that additional viewpoints should be submitted to show the rural character of Baldonnell Road and that design measures could be employed to reduce massing and improve the appearance /design quality of the building.

Context

- 8.15.2. Chapter 15 of the EIAR considers the likely direct and indirect significant effects on the landscape at all phases of the development. Construction landscape and visual effects are associated with site clearance, excavation, operation of construction plant. Operational effects are associated with the buildings and their daily operation, drainage, surface water management, lighting and maintenance.
- 8.15.3. Section 15.2 of the EIAR sets out the detailed methodology, including relevant guidance on landscape and visual impact assessment. The assessment approach outlined in the EIAR makes distinctions between landscape and visual effects as follows:
- Landscape effects relate to changes to the landscape as a resource, including physical changes to the fabric or individual elements of the landscape, its aesthetic or perceptual qualities, and landscape character; and
 - Visual effects relate to changes to existing views of identified visual receptors ('people'), from the loss or addition of landscape features within their view due to the Proposed Development.

8.15.4. The LVIA study extends 5km from the subject site, a Zone of Theoretical Visibility was then used to appraise potential visibility. Information informing the study includes aerial photography, local planning zones and landscape character areas. Fieldwork was employed to verify desktop findings with surveys undertaken by landscape architects on 24th April with the aim of identifying, recording and mapping characteristics of the landscape not covered by published landscape character assessments. Fieldwork also clarified and identified visual receptors, representative viewpoint locations and the extent of views, having regard to local characteristics such as buildings and vegetation. Viewpoints were selected to illustrate a range of receptor types and a range of view types (elevated/panoramic/static etc.), including potential for cumulative views, a range of viewing distances, and key/protected views. Visual receptors were categorised as follows:

- Residential – Relating to the homes along Baldonnell Road to the south. The ZTV shows limited visibility from the area due to the screening vegetation along the Baldonnell Road.
- Employment – Including the neighbouring business in Grange Castle Business Park and the commercial premises along Baldonnell Road.
- Transport – Users of Baldonnell Road and the R134 New Nangor Road.
- Recreational – Users of Grange Castle Golf Club to the east and the adjacent Corkagh Park.

8.15.5. Sensitivity levels are set out in detail in Table 15.2 of the EIAR which identifies visual sensitivity definitions, visual magnitude of change is set out in Table 15.3, and the effects matrix is set out in Table 15.4, all of which have been based on the Guidelines for Landscape and Visual Impact Assessment 2013.

Baseline

8.15.6. Landscape Character Types (LCTs) and Areas (LCAs) are set out in South Dublin County Council's Landscape Character Assessment 2021. The site is within LCA2: Newcastle Lowlands and is considered as medium sensitivity. LCA2 is primarily characterised by low lying, gently undulating agricultural lands under increasing influence from urban activities closer to motorways, and national/regional roads. There are several established communication corridors, including the Grand Canal and the

aerodromes at Weston and Baldonnell. Forces for change and impact on the landscape include housing pressures, increasing urban influence, fragmentation of agricultural land, and loss of separation distance between urban and rural. The relatively flat and open landscape is vulnerable to adverse visual and landscape impacts.

8.15.7. LCT is predominantly Limestone Farmlands (medium sensitivity) but also in close proximity to Urban Fringe (no sensitivity) and Green Space (high sensitivity). There are two riparian corridors within the study area that traverse the landscape to the north east towards the River Liffey. Land use varies and the surrounding area is transitional and peri-urban. The site itself is majority zoned EE (Enterprise and Employment) and the north, east and west are characterised by large buildings and ancillary accommodation/facilities. Surrounding land includes commercial and industrial properties, agriculture, homes, recreational open space, and Casement Aerodrome.

8.15.8. Seven viewpoints were selected as they represent a range of viewing distance, elevation, and orientation. The locations are outlined in Figure 15.4 of the EIAR and Table 15.5 provides a description of each viewpoint, receptor type and receptor sensitivity.

Potential Effects

8.15.9. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
Do Nothing	In a 'Do Nothing' scenario there would be no immediate change to the landscape.
Construction	<u>Landscape Effects</u> Landscape effects could result from vegetation removal, site disturbance, and from the introduction of new structures, access roads, machinery, materials, storage, associated earthworks, car parking, lighting and hoarding. There would be the removal of some mature trees and hedgerows internal to the site. No significant trees or vegetation

	would be removed from the site perimeter, including Baldonnel Road. The change in use of the site has the potential to alter landscape character. <u>Visual Effects</u> Visual effects could result from the removal of vegetation/trees (as set out above), in addition to the removal of mounds and the overall change in the use of the land. Typical construction works and site requirements (earthworks, provision of roads, excavations, fencing/hoarding etc.) also have the potential to result in visual effects.
Operation	<u>Landscape Effects</u> There would be potential landscape effects due to the presence of the new buildings and structures on the site, new roads, lighting, plant, and ancillary development in addition to the change in the use of the land. <u>Visual Effects</u> Visual effects could arise as a result of the new buildings and structures and the redevelopment and reconfiguration of the land, including the new roads, plant, lighting, and landscaping works.
Decommissioning	Decommissioning effects have not been considered but it can reasonably be assumed that the effects would be similar to the construction phase.
Cumulative	The site is located in an established and developing business park within the Newcastle Lowlands, on land zoned Enterprise and Employment. There are various permissions under construction in the business park and adjoining lands, including other data centres. The landscape has already been altered due to the presence of existing data centres and an additional facility

	would not alter the landscape dramatically. Whilst there would be changes to landscape and visual amenity, it would be in the context of the existing and emerging development. No significant effects are indicated.
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Mitigation

8.15.10. Construction phase mitigation would include:

- Locating the site compound, car park and storage areas to minimise the impact to the existing/retained vegetation.
- Use of fencing and hoarding to screen low level views of site works/construction.
- Protection of vegetation to be retained through fencing in accordance with BS5837: 2012.
- Retention of topsoil for the creation of landscape berms and for reinstatement of disturbed landscape areas.

8.15.11. Operational phase mitigation would include:

- Retention of the existing vegetation along the south boundary of the site and extension of the existing hedgerow planting to enhance and screen the site to the east and south using native evergreen species to ensure year round cover and integration within the wider green infrastructure context.
- Landscaped and vegetated berms throughout the site to screen the development.
- Provision of large wildflower meadow areas to ensure wildlife enhancement and protection and contribution to the wider green infrastructure network.
- Provision of a biodiversity refuge in the north of the site to compensate for vegetation loss resulting from the development.
- Nature based wet and dry attenuation ponds will be provided.
- Sustainable drainage systems, including swales will be integrated to provide ecological value.

Residual Effects

8.15.12. The scale of the development is such that it is inevitable that there would be a significant change to the site landscape from scrub vegetation to an operational industrial site. Given the existing industrial nature of the site surroundings, effects on landscape character are considered to be minor. Beyond the sites immediate surroundings, the scale of effect and the geographical extent of effect would be small and there would be no perceptible impact on character.

8.15.13. Similarly, the existing industrial visual character of the site and surroundings of Grange Castle Business Park South are such that effects on visual character are considered to be minor for all receptors identified. Landscaping works on site boundaries would be positive and would provide screening in addition to enhancing the existing character.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.15.14. Having examined, analysed, and evaluated Chapter – 15 Landscape and Visual of the EIAR and all of the associated documentation, submissions, and observations on file in this respect, I am fully satisfied that the Applicant's presented baseline environment is valid and that the key landscape and visual impacts have been identified. In terms of landscape character areas/type the site is located within the Newcastle Lowlands LCA and Limestone Farmlands LCT respectively. This LCA and LCT are of moderate sensitivity, and I agree that the magnitude of change would be low and that in both cases, the potential effect would be moderate/low and that following mitigation, this would be reduced to negligible.

8.15.15. In terms of the 7 viewpoints, I note that photomontages were not provided as part of the EIAR or as a stand alone document. Whilst it would be open to the Commission to request this as Further Information, I do not consider this necessary given the specific nature of the proposed development, the nature and form of the site surroundings, potential visibility and dispersal of sensitive receptors, and I am satisfied that in addition to the findings of my site inspection, there is adequate and appropriate information on file and within the EIAR and supporting documents, to come to a reasoned conclusion on visual impact.

8.15.16. Of the seven views assessed only one viewpoint has a high degree of receptor sensitivity and this relates to view number 4 on Baldonnell Road. Notwithstanding my

comments above regarding photomontages, this view is actually provided in the Design and Access Statement (Section 2.9 Visual Impact of Development, Figure 35). This view demonstrates that the existing vegetation (which in my opinion is less dense at this location in comparison to other sections of Baldonnell Road) provides sufficient screening in addition to demonstrating that the nature and form of the flues distributes and minimises mass and I agree with the outcome of the EIAR in classing this as a moderate effect. The remainder of the viewpoints are of low sensitivity and would experience negligible to moderate low effects. One other viewpoint would see a moderate effect, View 5, which is at the entrance to the Grange Castle Business Park. However, I am satisfied that visibility of the development from this location would be in the context of the wider business park. Following mitigation, there would be no effects above a moderate-low rating for any of the viewpoints/receptors and I agree with this conclusion. As stated in my design assessment earlier in this report, despite its size, there would be limited visibility of the building from more sensitive areas and boundaries closest to the site. Furthermore, the siting of the building in relation to those boundaries and the nature of those boundaries (existing and proposed landscaping) is such that potential impacts are either suitably mitigated or avoided. In conclusion, I am satisfied that the building is of an acceptable design, that it is appropriate to its surroundings, and that there would be no significant impacts on landscape and visual.

Conclusion: Direct and Indirect Effects

8.15.17. Having regard to the foregoing examination of environmental information in respect of resource and waste management, in particular the EIAR provided by the Applicant, the view of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I do not consider that there are any significant direct or indirect effects and that negative effects would largely be mitigated by a suite of appropriate mitigation measures.

8.16. Resource and Waste Management

Issues Raised

8.16.1. No specific issues were raised by any parties to the appeal.

Context

- 8.16.2. The matter of resource and waste management is addressed in Chapter 16 of the EIAR. Potential construction phase resource and waste effects would be associated with construction activities including site clearance, excavation, and general construction. Operational phase effects would be associated with municipal and construction type waste generated from operation and maintenance.
- 8.16.3. Chapter 16 evaluates the likely impacts, if any, that the proposed development may have on waste management. Relevant legislation and policy are outlined, and a detailed methodology is provided. This included a review of relevant legislation and policy, desktop studies, and estimates of waste generation and type.
- 8.16.4. Two study areas are proposed for the assessment of resource and waste management. The first study area refers to the subject site (lands within the red line boundary) and includes the area where waste and materials would be generated and consumed. The second study area refers to the region where treatment capacity or resource availability may be affected and is defined as the Eastern and Midlands Waste Region (EMWR). Assessment methodology included:
- Desk study of current practices for waste and by-product management in Ireland.
 - Data gathered on the types and quantities of waste and by-product generation and management from the Proposed Development at all stages.
 - An assessment of the resources required for the Proposed Development against regional and / or national stock levels.
 - The surplus material and waste infrastructure capacity in the wider study area; in this case the EMWR.
 - Significance criteria and guidance prepared by the Institute for Environmental Management and Assessment (IEMA) (see Section 16.2.5 for further details).
 - A review of the Proposed Development in the context of the waste hierarchy and Circular Economy (CE) principles to guide mitigation measures, should they be required.

Baseline

- 8.16.5. The last year for which published statistics are available is 2021. In that year, 9 million tonnes of construction and demolition (C&D) waste was generated. 7.7 million tonnes of this comprised soil and stones, making up 85% of the waste stream. The majority of the waste stream (85%) was used for backfilling., which is a recovery operation. Under the Waste Framework Directive, member states must achieve at least 70% material recovery for non-hazardous, non-soil and stone C&D waste.
- 8.16.6. Regulation 27 of the European Union (Waste Directive) Regulations 2011, as amended, allows a material producer to determine, under prescribed circumstances, that a material is a by-product and not a waste and so can be reused onsite or offsite within the industry. In Ireland this is determined by the EPA. Details of Regulation 27 notifications are set out in table 16.3 of the EIAR for the years 2017-2020.
- 8.16.7. Hazardous waste includes contaminated soils, waste treatment, solvents, and hazardous elements of waste electrical and electronic equipment. In 2022, the EPA noted that 57% of hazardous waste was treated abroad and 43% was treated in Ireland
- 8.16.8. Data has been employed to establish a baseline for 2020. Available C&D waste and by-product capacity in the EMWR for 2020 was set at 11.7 million tonnes using the available capacity for permitted facilities for construction and demolition wastes, including only licensed facilities accepting soil and stones, and including all Regulation 27 notifications dated 2020 in the EMWR.
- 8.16.9. In terms of municipal waste, 3.17 million tonnes was generated in 2021. Of this, 41% was used in energy recovery, 26% was used in material recycling, 16% was landfilled, 15% was used in composting / anaerobic digestion, and 1% was unmanaged. This can be further split by 57% household waste and 43% from commercial and public service sources. Since 2021 there has been a significant decline in landfill and an increase in recycling.
- 8.16.10. In terms of resources, an aggregates report from the Irish Concrete Federation from 2019 states that Ireland had approximately 500 active large commercial quarries, approximately 220 ready mixed concrete plants, 20 large scale precast concrete plants and 40 plants producing bitumen bound road surfacing materials. Details of annual production are set out in table 16.6 of the EIAR.

Potential Effects

8.16.11. Potential significant effects of the development, as identified in the EIAR, are summarised below.

Project Phase	Potential Effects
Do Nothing	No impact is predicted in this scenario as the site will remain in its current condition.
Construction	<u>Waste</u> No demolition works are proposed and as such no effects will arise from demolition. Excavation – Having regard to the estimated quantity of excavated material to be exported from the site during the excavation phase, the significance criteria presented in Table 16.1 of the EIAR and the available treatment capacity in the EMWR for C&D waste, the potential effect of the excavation works without mitigation is negative, minor and short-term, and not significant in EIA terms. Construction waste– The most likely type of waste arising from the construction would be bituminous material from road excavation, surplus concrete and unusable or damaged ducting segments. Quantities are fairly minor (presented in table 16.8 of the EIAR) and classed as negative, negligible, short term and not significant. Municipal waste – No significant effects. <u>Resources</u> Construction would require key construction materials including concrete, crushed stone, road paving materials, steel, aluminium, glass, and power cables etc. Estimated quantities are given in table 16.10 of the EIAR. Potential effects would be negative, negligible and long-term, and not significant.
Operation	<u>Waste</u>

	Municipal Waste - Minor quantities of municipal waste would be generated by employees, contractors and visitors. Effects would be <i>negative, negligible and short-term, and not significant.</i> Construction Waste (Maintenance) - These activities would be infrequent and would generate only minor quantities of waste. Predicted effects would be negative, negligible, short-term, and not significant. <u>Resources</u> Minor quantities of resources would be required for operational and maintenance activities, mostly due to the replacement of components. Predicted effects would be <i>negative, negligible, long-term, and not significant.</i>
Decommissioning	A pre-demolition audit will be carried out for the development, prior to decommissioning. Waste and by-products would be managed in accordance with the Waste Management Act. No significant effects are predicted.
Cumulative	The EIAR concludes that there is potential for significant direct or indirect cumulative effects on resource and waste management during the construction phase. However, the construction phase is short term and the potential for significant effects is mitigated by the availability of waste management treatment capacity within the region. No adverse effects are anticipated at operational stage when considered on a cumulative basis.

Mitigation

8.16.12. Construction measures include the implementation of a Construction Demolition Resource Waste Management Plan (CDRWMP). This is included in the CEMP and would meet Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (EPA, 2021).

8.16.13. Operational resources and waste would be managed in accordance with the Circular Economy targets set in Google Inc. Environmental Report which includes achieving Zero Waste to Landfill for all global data centre operations (refer to 2023 Environmental Report - Google Sustainability). Decommissioning would include a rehabilitation schedule based on the same principles as the CDRWMP.

Residual Effects

8.16.14. Following the implementation of mitigation, the residual construction phase impacts would range from ***negative, minor and short term to negative, negligible and short-term***. Operational phase residual impacts would be ***negative, negligible and short to long-term***. No significant residual effects are predicted.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.16.15. Having examined, analysed, and evaluated Chapter - 16 Resource and Waste Management of the EIAR and all of the associated documentation, submissions, and observations on file in respect of waste, I am fully satisfied that the Applicant's presented baseline environment is valid and that the key impacts in respect of likely effects on waste, as a result of the proposed development, have been identified.

8.16.16. Suitable mitigation and best practice measures have been proposed, and I consider them sufficient to ensure that there would be no significant adverse impacts on waste. I am also satisfied that there would be no significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

Having regard to the foregoing examination of environmental information in respect of resource and waste management, in particular the EIAR provided by the Applicant, the view of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I do not consider that there are any significant direct or indirect effects and that negative effects would largely be mitigated by a suite of appropriate mitigation measures.

8.17. Material Assets

Issues Raised

8.17.1. A key issue in the Planning Authority's first reason for refusal relates to grid capacity and the view that there is insufficient capacity to accommodate the development and a lack of detail in terms of how the development would impact on power supply once

operational. The Planning Authority consider that the potential for significant effects as set out in the EIAR indicate that the network does not have capacity to accommodate the development.

- 8.17.2. Observations on the appeal also raise concerns regarding the potential impact on the power network/grid and consider the Planning Authority to be justified in refusing permission for that reason and consider that the development would put pressure on an already strained grid. Further concerns raised in the observations relate to the Applicant's claims of having an existing grid connection and how this aligns with Eirgrid procedures for negotiating grid connections.

Context

- 8.17.3. Chapter 17 of the EIAR assesses the likely direct and indirect impacts on a range of material assets at all stages of the development. Material assets potentially affected during construction include the drainage and power network. Operationally there could potentially be effects associated with increased power, water, and telecommunications needs.
- 8.17.4. A detailed methodology is set out at Section 17.2 of the EIAR which directly addresses the EIAR Guidelines in addition to other relevant legislation and guidance. It should be noted that the issue of material assets has also been considered in other technical chapters, including Chapter 6 (Traffic and Transport) Chapter 12 (Water), Chapter 14 (Archaeology, Architectural and Cultural Heritage), and Chapter 16 (Resource and Waste Management).
- 8.17.5. The purpose of the assessment is to gauge likely significant effects on existing built services and infrastructure (electricity, telecoms, water, drainage) with effects being categorised based on the quality of the effect, its significance, and the duration of the effect. Significance criteria for utilities are based on EPA Guidelines and are set out in detail in Table 17.1 of the EIAR. There are seven significance levels ranging from 'Imperceptible' to 'Profound'.

Baseline

- 8.17.6. The development site is owned by GIL with the exception of a small section of road to the north of the site, which is in the ownership of Grange Castle Business Park, who have provided written consent for development to take place. There are a small

number of homes along the Baldonnel Road boundary of the site. The nearest adjoining settlements are at Clondalkin Village c.3.5km to the east and Saggart, Newcastle, and Rathcoole a similar distance to the south. Larger settlements include Lucan (4.5km away) and Tallaght (6.2km away).

8.17.7. Power Supply – There is an existing high voltage (HV) power supply providing power to the existing GIL campus via the Barnakyle substation through an existing Eirgrid connection. The EIAR notes that energy demand in Ireland has increased substantially in part due to increased data centre development.

8.17.8. Telecommunications – Telecoms are provided to the existing GIL campus.

8.17.9. Natural Gas – No existing gas supply and no proposed gas supply.

8.17.10. Water Supply – There are three existing water supply connections. DC1 and DC2 have an existing peak design flow rate of 5.6L/sec and include a cold water storage tank which also supplies firefighting water storage tanks. Information provided to the EPA as part of the IE licence indicates existing water usage in the region of 2,600m³/yr.

8.17.11. Foul Water - Foul water is discharged through an existing connection to the foul water drainage system. Existing GIL Campus discharge volumes are equal to 3.0L/Sec. This system connects to the public sewer in Grange Castle and ultimately discharged to Ringsend WWTP.

8.17.12. Stormwater - There are two existing discharge points which receive all wastewater. One discharges surface water at a controlled rate to the tributary of the Baldonnel Stream at the culvert adjacent to DC1 and then onwards to the public stormwater sewer and the Griffeen River. The second is north of DC2 and discharges to a stormwater drainage system constructed as part of the Milltown Access Road scheme.

Potential Effects

8.17.13. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
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Do Nothing	A 'Do Nothing' scenario has not been assessed for Material Assets. In a 'Do Nothing' scenario, the site would remain as is and there would arguably be a neutral impact on material assets.
Construction	<u>Power Supply</u> Construction would require power for light, welfare facilities and some equipment. A temporary connection to the on-site power supply would be installed with demand expected to be minor. Effects are expected to be negative, imperceptible, and short term. <u>Telecommunications</u> Demand would be minor, and effects are expected to be negative, imperceptible, and short term. <u>Water Supply</u> Water would be required for dust suppression and welfare. Existing supply/connection would be used. Demand is expected to be minor. Effects are anticipated to be negative, not significant, and short term. <u>Foul Water</u> Existing foul discharge would be used to support welfare facilities. Potential use of a temporary foul water storage tank. Demand is expected to be minor and would result in negative, not significant, and short term effects. <u>Stormwater</u> Risk of increased silt or pollution arising from construction works, excavations, exposed ground, stockpiles, access roads etc. Potential for increased stormwater volume due to increase in impermeable surfaces and compaction of soils. Overall potential effects would be negative, not significant and short

	term. Note water quality is dealt with in that technical chapter (Chapter 12).
Operation	<u>Power Supply</u> The development includes a HV compound to support the data centre. The site has an existing grid connection with Eirgrid which is sufficient to operate the existing and proposed data centres (DC1, DC2, and DC3). Total annual energy consumption based on 100% IT load is approximately 883GWh and effects on power supply are anticipated to be negative, significant, and long-term. <u>Telecommunications</u> The development would provide infrastructure responding to increased digital demands and expected to have positive, moderate, and long term effects. <u>Water Supply</u> The development would connect to the existing supply. Uisce Éireann have confirmed that the network can serve the development without infrastructure upgrades. The demand is expected to result in negative, not significant, and long term effects. <u>Foul Water</u> Foul water would arise from welfare facilities. Condensate discharge would be minor in nature. Uisce Eireann have confirmed capacity in the foul water network, noting that SDCC would need to assess the capacity of the Grange Castle Foul Water Pumping station. Effects are anticipated to be negative, not significant, and long-term. <u>Stormwater</u> There would be an increase in stormwater runoff from the GIL Campus. Carrier pipes have been designed as gravity systems.

	Car parking areas would use porous paving with a high level overflow to the stormwater drainage system with attenuation and controlled discharge. Demand is predicted to result in <i>negative, not significant and long-term effects</i>. <u>Firewater Retention</u> The development would include a 3,236m³ underground Firewater Retention Tank, designed in accordance with EPA guidance. Firewater would be retained and tested. If discharge standards are met, then it would be discharged to the foul or stormwater networks. Otherwise, it would be collected and disposed of by a licenced contractor at an approved facility.
Decommissioning	Decommissioning effects would likely be similar to the anticipated construction phase effects.
Cumulative	No significant adverse construction phase cumulative effects are anticipated. Operationally, there is the potential for a <i>negative, significant and long-term</i> residual effect on power supply. No significant adverse residual cumulative effects on water are likely on other material assets.

Mitigation Measures

- 8.17.14. No specific mitigation measures are required at construction phase in addition to those established in other technical chapters.
- 8.17.15. Operational Power Supply – There would be roof mounted PV panels providing a degree of on-site renewable energy and providing 20% of the power needs of the administrative part of the building. GIL have signed a CPPA with the 58MW Tullabeg Solar Farm that will add renewable energy to the grid and assist decarbonisation. The development has been designed to facilitate district heating once a suitable off-taker is available.

8.17.16. Telecommunications – No mitigation measures are required, and no significant adverse effects are anticipated.

8.17.17. Water - DC3 incorporates a rainfall collection system which would collect and convey rainfall to the site wide stormwater drainage network. The IE licence requires this system to be maintained and monitored and this would continue. Water quality monitoring is undertaken to prevent negative effects on the nearest Water Framework Directive waterbody, the Griffeen River. Weekly monitoring would continue. Uisce Éireann has processed the DC3 pre-connection application and confirmed that the networks can accommodate the development without an infrastructure upgrade.

8.17.18. Residual Effects

8.17.19. No significant adverse residual effects are anticipated.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

8.17.20. I note the site is served by existing connections to the water supply and wastewater networks. Water use is estimated to be low on a daily basis (est. 3 cubic metres per day). Key to this is that the cooling regime for the data centre is not water based. Surface water and foul water connections are already in place and Uisce Éireann have raised no objection to the proposed development. I find that there would be no significant adverse impacts on water or drainage. In terms of telecommunications, no issues were raised and, given the nature of the development as a data centre that supports digital technology, there is the potential for some positive impacts.

8.17.21. I note the concerns of the Planning Authority and observers with regards to the impact on power supply and pressures on the national grid. As part of the wider GIL campus, the site benefits from an existing fixed grid connection and a connection agreement was signed with Eirgrid in 2021 to facilitate the import of up to 130MVA to GIL existing and proposed data centres. As such, GIL have already secured contracted capacity, and it can be inferred that by entering into the connection agreement Eirgrid determined that there was sufficient capacity to support the contracted demand.

8.17.22. I note the concerns raised in the observations regarding the process of securing an Eirgrid connection and the view taken that Eirgrid procedures were not followed. As stated previously, this is a matter for Eirgrid, and it is not for the Commission to determine if there is sufficient capacity or to review Eirgrid procedures. I acknowledge

the view of the Observers that the Commission should request details of the connection agreement. It would of course be open to the Commission to do this. However, acknowledging the clear commercial sensitivity of such an agreement, I am satisfied that there is sufficient information on file, including the letter from the Applicant's solicitor directly in relation to the connection agreement, to indicate that the connection agreement is in place.

8.17.23. Furthermore, measures are proposed to mitigate potential impacts on the power network. Continuing on the matter of the connection agreement, I note that it is subject to a 'flexible demand arrangement' that requires GIL to reduce energy demand to prescribed levels when instructed to do so by Eirgrid as TSO and as such there are protections and safeguards to ensure grid efficiency and security. Additionally, the scheme proposes the use of PV panels which will generate a proportion of the power required by the FSA building and GIL have entered into an CPPA with a solar farm in Wexford for the provision of 58MW of power. These measures and agreements, together with the conditions I have recommended in the event that permission is granted, are such that I agree that there would be no significant residual impacts on the energy network or material assets as a result of the proposed development.

Conclusion: Direct and Indirect Effects

8.17.24. Having regard to my examination of environmental information in respect of material assets, in particular the EIAR provided by the Applicant, the view and report of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect material assets impact is, and would be mitigated where relevant, as follows:

- **Negative, significant and long-term** effects on power supply as a result of total annual energy consumption based on 100% IT load at 883GWh, having regard to the sensitive baseline environment as a result of energy demands in Ireland.

8.18. Major Accidents and Disasters

Issues Raised

8.18.1. No issues raised by any parties to the appeal.

Context

8.18.2. Chapter 18 of the EIAR describes and assesses the likely direct and indirect effects of the proposed development on major accidents and disasters, the objective being to ensure that appropriate precautionary actions are taken for any development projects that are likely to have significant adverse effects on the environment due to their vulnerability to major accidents and/or natural disasters.

8.18.3. The adopted methodology, including details of relevant legislation, such as the EIA Directive, and relevant guidance documents are addressed in section 18.2 of the EIAR. In relation to disaster and accident risk, guidance from the European Commission lists the issues that EIARs should address. This includes:

- What can go wrong with a Project?
- What adverse consequences might occur to human health and to the environment?
- What is the range of magnitude of adverse consequences?
- How likely are these consequences?
- What is the Project's state of preparedness in case of an accident/disaster?
- Is there a plan for an emergency situation?

8.18.4. A desk-based study has established a baseline environment relevant to the risk assessment. Establishing the local and regional context in advance of completing the risk assessment enables a better understanding of the vulnerability and resilience of the area to emergency situations, and of the potential for the surrounding environment to pose a risk of a major accident or disaster. After initial identification of the potential risk events, the likelihood of occurrence of each risk event has been assessed and classified as 1 (extremely unlikely), 2 (very unlikely), 3 (unlikely), 4 (likely), and 5 (very likely). Consequences are classed as 1 (minor), 2 (limited), 3 (serious), 4 (very serious), and 5 (catastrophic).

Baseline

8.18.5. The baseline covers natural disasters (seismic activity and tsunamis), severe weather and climate change predictions, and flooding. Ireland has low magnitude seismic activity, no active volcanoes and is geographically unlikely to be at risk of tsunamis.

EPA research (EPA, 2020) suggests an eastward extension of more severe storms over Ireland and the UK from the middle of the century, as a result of climate change, but notes that extreme storms are rare events. Flooding is considered in Chapter 12 (Water) of the EIAR and the FRA demonstrates that flooding risks can be mitigated and managed.

8.18.6. Major accidents include Seveso Sites and IE Licences. The nearest Seveso site is Microsoft, approximately 800m to the north, which is a lower tier Seveso site. The subject site currently operates under an IE Licence from the EPA. This licence will need to be reviewed to include the proposed development. There are five industrial sites within 500m of the development that operate under Industrial Emissions Licences from the EPA and are therefore considered to be major industrial facilities.

Potential Effects

8.18.7. Potential significant effects of the development, as identified in the EIAR, are summarised below:

Project Phase	Potential Effects
Do Nothing	In a 'Do Nothing' scenario there would be no increase in the likelihood of major accidents or consequences of a disaster and the site would remain the same as it is currently.
Construction	There is a risk of <i>potential significant effects</i> with regards to the following: • Structural damage/collapse • Contamination – Pollution of watercourses/groundwater • Transport incident – major traffic accident/collision • Biosecurity – Spread of invasive species • Industrial incident – explosion/fire.
Operation	No significant negative risks identified.
Decommissioning	Likely to be similar to the construction phase.
Cumulative	Having regard to Regulation 15 of the Safety, Health and Welfare at Work (Construction) Regulations and Schedule 3 of

	the Safety, Health and Welfare at Work Act, the development would have been designed and engineered with relevant legislation, standards and guidance, thereby mitigating potential design and construction related risks. Operationally, potential incidents and / or major accidents and / or disaster risk events as a result of the development is low, and no significant cumulative adverse effects are likely to arise
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Mitigation

- 8.18.8. The development would have been designed and engineered having regard to Regulation 15 of the Safety, Health and Welfare at Work (Construction) Regulations, Schedule 3 of the Safety, Health and Welfare at Work Act, and S.I. No. 138/2012 - Building Regulations (Part A Amendment) Regulations 2012. This would mitigate design and construction related risk. Additionally, South Dublin County Council has a major emergency management programme in place which has been prepared to facilitate the response to, and recovery from, major emergencies in coordination with the Health Service Executive and An Garda Síochána.
- 8.18.9. During construction, the development would be governed by a CEMP which contains appropriate mitigation measures and monitoring. Operationally, the development would operate in line with the IE Licence from the EPA and an Emergency Action Plan is in place for existing operations. This licence would be reviewed to incorporate the proposed development.

Residual Effects

- 8.18.10. Following the implementation of mitigation and monitoring measures set out in the EIAR in addition to mitigation recommended under other related technical chapters, no significant negative residual effects would be anticipated.

Analysis, Evaluation, and Assessment: Direct and Indirect Effects

- 8.18.11. I have examined, analysed, and evaluated chapter 18 – Major Accidents and Disasters of the EIAR and all of the associated documentation, submissions, and observations on file in respect of accidents and disasters. I am satisfied that the key

risks have been identified. I am satisfied that the conclusions are reasonable and that no significant negative residual effects would remain.

- 8.18.12. Suitable mitigation measures have been proposed which I consider are sufficient to ensure that there would be no significant adverse effects, and that risks would be minimised as far as reasonably practicable. I am also satisfied that there would be no significant cumulative adverse impacts.

Conclusion: Direct and Indirect Effects

- 8.18.13. Having regard to my examination of the risks of major accidents and disasters, in particular the EIAR provided by the Applicant, the view and report of the Planning Authority, and the submissions and observations received by both the Planning Authority and the Commission in the course of the application, I consider that the main significant direct and indirect impact is, and would be mitigated where relevant, as follows:

- **Potential significant effects** with regards to major accidents in terms of structural damage/collapse, contamination, transport incidents, biosecurity, and industrial accidents.

8.19. Interactions

- 8.19.1. Interactions are detailed in Table 19.4 of the EIAR. Chapter 10 (Population and Human Health) assesses the interactions between Air Quality (Chapter 7), Noise and Vibration (Chapter 9), and Landscape and Visual (Chapter 15) and addresses interactions at all stages of the development.
- 8.19.2. Chapter 11 (Biodiversity) has considered the interactions between species, habitats and other environmental issues. There is an interaction between Water and Biodiversity as declines in surface water pollution can contribute to habitat degradation.
- 8.19.3. There are interactions between Land, Soils, Geology and Hydrogeology (Chapter 13) and Resource and Waste Management (Chapter 16). The main interaction between these topics will be during the Construction Phase. Chapter 16 assesses the impact of imported materials and the use of site-won materials which can be re-used. Interactions occur as the amount of material to be imported will depend on the amount of material which can be recovered and re-used on-site. Chapter 13 (Land, Soils,

Geology & Hydrogeology) provides an assessment of impacts on soils, including potentially contaminated land.

8.19.4.

8.20. **Cumulative Effects**

8.20.1. Cumulative effects are set out in Chapter 19 of the EIAR. I have addressed the matter of cumulative effects in my assessment of each technical chapter.

8.21. **Reasoned Conclusion**

8.21.1. Having regard to the examination of environmental information set out above, to the EIAR and other information provided by the Applicant, and to the submissions from the Planning Authority, prescribed bodies and observers during the course of the application, it is considered that the main potential direct, indirect, secondary, and cumulative effects of the proposed development on the environment are as follows:

8.21.2. Transport

- Potential significant, indirect, short-term effects on the local road network arising from cumulative construction traffic potentially leading to HGV queuing in internal site roads.

8.21.3. Climate

- Indirect adverse moderate effects which would be classed as significant based on TII Guidance, related to the emissions from energy generated by the national grid to power the proposed development.

8.21.4. Noise and Vibration

- Direct significant to very significant negative short term noise effects arising for seven residential receptors along Baldonnell Road to the south of the site during the construction phase, which would be mitigated as much as practicable by a suite of appropriate construction phase management measures, adherence to best practice measures, and planning conditions.
- Direct significant negative noise effects during the operational phase as a result of use of the emergency back-up generators. This would apply to the hourly testing once a month or rare use in emergency situations where there is a site black out. In both instances the effects would be very short term and, the

context of testing, noise limits would remain in compliance with the Industrial Emissions Licence.

8.21.5. Population and Human Health

- Direct effect on air quality during the construction phase has the potential to be negative significant, and short-term in proximity to the works.

8.21.6. Biodiversity

- Negative, significant-likely, short term impacts on water quality to designated sites.
- On a precautionary basis, there is potential for significant impacts on the direct mortality of amphibians, bats, breeding birds and other mammals during the construction phase. In terms of foraging, there are potential significant effects on bats, breeding birds and other mammals and further significant impacts in terms of disturbance for birds.
- At operational stage, there would be potential significant effects with regard to disruption/displacement of species as a result of changes to the watercourse and the introduction of a step pool to address changes in levels.
- At operational stage there is the potential for significant adverse effects on the local bat population due to disturbance to foraging as a result of external lighting. With the exception of amphibians, further potential significant impacts could occur in terms of foraging

8.21.7. Water

- Potential significant and long term effects in terms of hydromorphology associated with changes to waterbody morphology (depth, width, structure, substrate) and changes to the riparian zone structure as a result of works to reroute the watercourse through the site.

8.21.8. Archaeology, Architectural, and Cultural Heritage

- Direct negative, significant and permanent effects on archaeology during the construction phase as a result of earthworks and excavation.

8.21.9. Resource and Waste Management

- Potential for significant direct or indirect cumulative effects on resource and waste management during the construction phase.

8.21.10. Material Assets

- Potential negative, significant and long-term effects on power supply as a result of total annual energy consumption based on 100% IT load at 883GWh, having regard to the sensitive baseline environment as a result of energy demands in Ireland.
- Operationally, there is the potential for a negative, significant and long-term residual effect on power supply.

8.21.11. Major Accidents

- Potential significant effects with regards to major accidents in terms of structural damage/collapse, contamination, transport incidents, biosecurity, and industrial accidents.

8.21.12. Arising from my assessment of the project, including mitigation measures set out in the EIAR and the application, and as conditioned in the event of a grant of planning permission for the project, in my opinion the environmental impacts identified above would not be significant and would not justify refusing permission for the proposed development.

9.0 **Appropriate Assessment Screening**

9.1. Having regard to the information contained within the Applicant's Screening Assessment, my site inspection, a review of the conservation objectives and supporting documents, and adopting a precautionary principle, I consider that in the absence of mitigation measures beyond best practice construction methods, the proposed development has the potential to result in significant effects on the European sites of Dublin Bay.

9.2. In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the Applicant, I conclude that the proposed development could result in significant effects on the European sites of Dublin Bay. It is therefore determined that Appropriate Assessment

(stage 2) [under Section 177V of the Planning and Development Act 2000] of the proposed development is required.

10.0 Appropriate Assessment Stage 2

10.1.1. In screening the need for Appropriate Assessment, it was determined, on the basis of a precautionary approach, that the proposed development could result in significant effects on:

- South Dublin Bay SAC (Site Code 0000210).
- North Dublin Bay SAC (Site Code 0000206).
- South Dublin Bay and River Tolka Estuary SPA (Site Code 0004024).
- North Bull Island SPA (Site Code 0004006).

10.1.2. It was determined that the development would have potential for significant effects in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U/ 177AE was required.

10.1.3. Following an examination, analysis and evaluation of the NIS and all associated material submitted, I consider that adverse effects on site integrity of the European sites set out above can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects. My conclusion is based on the following:

- Detailed assessment of construction and operational impacts.
- Effectiveness of mitigation measures proposed including construction environmental management measures, surface water management, pollution control, protection of watercourses and appropriate monitoring and supervision by and Ecological Clerk of Works.
- Application of planning conditions to ensure adherence to these measures.
- The proposed development would not affect the attainment of conservation objectives for the European sites of Dublin Bay or prevent or delay the restoration of favourable conservation conditions.

11.0 Recommendation

11.1. I recommend that the Commission grant permission for the proposed development, subject to conditions, for the reasons and considerations set out below.

12.0 Reasons and Considerations

12.1. In coming to its decision, the Commission had regard to the following:

a) National Policy in particular:

- The National Planning Framework – Ireland 2040
- The Climate Action Plan 2024 and 2025
- The Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, July 2022

b) Regional Policy including in particular:

- The Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031

c) Local Planning Policy including in particular:

- The provisions of the South Dublin County Development Plan, 2022-2028

d) The following matters:

- the 'EE' (Enterprise and Employment) zoning objective that pertains to the majority of the subject site and the appropriate landscaping works proposed for the RU (Rural) zoning objective.
- the nature, scale, design of the development and the pattern of development within the immediate area.
- the nature of the site within an existing business park campus and the collocation of the proposed data centre on the same land holding as other GIL data centres.
- the proposal's general compliance with guiding principle of the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy, July 2022.

- the existing fixed connection to the national grid and the existing grid connection agreement with Eirgrid which includes a flexible demand arrangement.
- the Applicant's engagement with CPPAs including an existing signed PPA securing renewable energy.
- the overall design and layout of the development and the comprehensive landscaping scheme with extensive tree planting and the opening up of watercourses with potential for biodiversity net gain.
- the documentation and submissions of the Local Authority, the Environmental Impact Assessment Report and associated documentation and the mitigation and monitoring measures proposed.
- the submissions and observations made to An Coimisiún Pleanála in connection with the appeal.
- the likely consequences for the environment and the proper planning and sustainable development of the area in and the likely significant effects of the proposed development on European sites.
- the Inspector's Report and recommendation, including the examination, analysis and evaluation undertaken in relation to Environmental Impact Assessment and Appropriate Assessment.

12.2. It is therefore considered that, subject to compliance with the conditions set out below, including a condition requiring the completion of further Corporate Power Purchase Agreements in advance of commencement of the development in order to secure appropriate and sufficient renewable energy supply, in addition to a condition requiring the use of HVO fuel for the backup generators, the proposed development would accord with European, national, regional and local planning and related policy, would not have an unacceptable impact on the landscape, visual, heritage or residential amenity of the area or of property in the vicinity, and would be acceptable in terms of water, utility, and drainage impacts. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Environmental Impact Assessment

12.3. The Commission completed an Environmental Impact Assessment of the proposed development, taking into account:

- a) the nature, scale and extent of the proposed development,
- b) the Environmental Impact Assessment Report and supporting information
- c) the submissions from the Applicant, the observers and prescribed bodies in the course of the application,
- d) the reports of the Planning Authority, and
- e) the Inspector's report.

12.4. The Commission considered that the Environmental Impact Assessment Report and supporting documentation adequately identifies and describes the direct, indirect, and cumulative environmental effects of the proposed development and that the information contained in the Environmental Impact Assessment Report complies with the provisions of EU Directive 2014/52/EU amending Directive 2011/92/EU.

12.5. The Commission was satisfied that the Inspector's Report sets out how these various environmental issues were addressed in the examination and recommendation which are incorporated into the Commission's decision. The Commission considered and agreed with the Inspector's reasoned conclusions, that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated, as follows:

Transport

- Potential significant, indirect, short-term effects on the local road network arising from cumulative construction traffic potentially leading to HGV queuing in internal site roads.

Climate

- Indirect adverse moderate effects which would be classed as significant based on TII Guidance, related to the emissions from energy generated by the national grid to power the proposed development.

Noise and Vibration

- Direct significant to very significant negative short term noise effects arising for seven residential receptors along Baldonnell Road to the south of the site during the construction phase, which would be mitigated as much as practicable by a

suite of appropriate construction phase management measures, adherence to best practice measures, and planning conditions.

- Direct significant negative noise effects during the operational phase as a result of use of the emergency back-up generators. This would apply to the hourly testing once a month or rare use in emergency situations where there is a site black out. In both instances the effects would be very short term and, the context of testing, noise limits would remain in compliance with the Industrial Emissions Licence.

Population and Human Health

- Direct effect on air quality during the construction phase has the potential to be negative significant, and short-term in proximity to the works.

Biodiversity

- Negative, significant-likely, short term impacts on water quality to designated sites.
- On a precautionary basis, there is potential for significant impacts on the direct mortality of amphibians, bats, breeding birds and other mammals during the construction phase. In terms of foraging, there are potential significant effects on bats, breeding birds and other mammals and further significant impacts in terms of disturbance for birds.
- At operational stage, there would be potential significant effects with regard to disruption/displacement of species as a result of changes to the watercourse and the introduction of a step pool to address changes in levels.
- At operational stage there is the potential for significant adverse effects on the local bat population due to disturbance to foraging as a result of external lighting. With the exception of amphibians, further potential significant impacts could occur in terms of foraging

Water

- Potential significant and long-term effects in terms of hydromorphology associated with changes to waterbody morphology (depth, width, structure,

substrate) and changes to the riparian zone structure as a result of works to reroute the watercourse through the site.

Archaeology, Architectural, and Cultural Heritage

- Direct negative, significant and permanent effects on archaeology during the construction phase as a result of earthworks and excavation.

Resource and Waste Management

- Potential for significant direct or indirect cumulative effects on resource and waste management during the construction phase.

Material Assets

- Potential negative, significant and long-term effects on power supply as a result of total annual energy consumption based on 100% IT load at 883GWh, having regard to the sensitive baseline environment as a result of energy demands in Ireland.
- Operationally, there is the potential for a negative, significant and long-term residual effect on power supply.

Major Accidents

- Potential significant effects with regards to major accidents in terms of structural damage/collapse, contamination, transport incidents, biosecurity, and industrial accidents.

13.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the Planning Authority, the Developer shall agree such details in writing with the Planning Authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. The period during which the development hereby permitted may be carried out shall be 10 years from the date of this Order.

Reason: Having regard to the nature of the development, the Commission considers it appropriate to specify a period of validity of this permission in excess of five years.

3. The Developer shall submit full details in relation to all external materials and finishes for written agreement of the Planning Authority. The submission shall provide for variations in cladding colour for the east and west elevations of DC3 and the FSA building.

Reason: In the interest of residential and visual amenity

4. Prior to the commencement of the operation of the development hereby permitted, the Developer shall submit details of a Corporate Purchase Power Agreement(s) that the Developer has entered into. The agreement(s) shall demonstrate that the energy demand of DC3 is offset with new renewable energy generation. Details shall be agreed in writing by the Planning Authority. For the avoidance of doubt, the CPPA(s) shall comply with the following:

- a. the 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,
- c. the new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission, and
- d. The renewable energy generation covered by the CPPA/s shall be equal to or greater than the average electricity demand of the DC3 data centre.

Reason: In the interests of sustainable development.

5. The mitigation measures identified in the Environmental Impact Assessment Report, the Natura Impact Statement, and other plans and particulars submitted with the planning application, shall be implemented in full in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this permission.

Reason: In the interest of clarity and protection of the environment during the construction and operational phases of the proposed development.

5. Prior to the commencement of development, the Developer shall confirm via plans, drawings, and technical specifications, that the development will include

the required infrastructure, installed to a connection point on the site boundary, to allow for a connection to a future district heating network. Details shall be submitted to and agreed in writing by the Planning Authority.

Reason: In the interest of sustainability.

6. The Developer shall engage a suitably qualified licence eligible archaeologist (licensed under the National Monuments Acts) to carry out pre-development archaeological testing in areas of proposed ground disturbance and to submit an Archaeological Impact Assessment report for the written agreement of the Planning Authority, following consultation with the National Monuments Service and the Department of Housing, Local Government and Heritage, in advance of any site preparation works or groundworks, including site investigation works/topsoil stripping/site clearance/dredging/underwater works and/or construction works. The report shall include an Archaeological Impact Statement and Mitigation Strategy. Where archaeological material is shown to be present, avoidance, preservation in-situ, preservation by record (archaeological excavation) and/or monitoring may be required. Any further archaeological mitigation requirements specified by the Planning Authority, following consultation with the National Monuments Service and the Department, shall be complied with by the Developer. No site preparation and/or construction works shall be carried out on site until the archaeologist's report has been submitted to and approval to proceed is agreed in writing with the Planning Authority. The Planning Authority, the National Monuments Service, and the Department shall be furnished with a final Archaeological Report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the Developer.

Reason: To ensure the continued preservation (either in situ or by record) of places, sites, features or other objects of archaeological interest.

7. 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.

Reason: In the interest of public health.

8. Public lighting shall be provided in accordance with a scheme which shall be submitted to and agreed in writing with the Planning Authority prior to the commencement of development.

Reason: In the interest of amenity and public safety.

9. Prior to the commencement of operations, 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 staff employed in the development.

Reason: In the interest of encouraging the use of sustainable modes of transport.

10. 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 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.

Reason: In the interest of sustainable transport and safety.

11. Site development and building works shall be carried out between the hours of 7am to 6pm Mondays to Fridays inclusive, between 9am to 2pm on Saturdays and not at all on Sundays and public holidays. Deviation from these times shall only be allowed in exceptional circumstances where prior written agreement has been received from the Planning Authority.

Reason: To safeguard the amenity of property in the vicinity.

12. 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.

Reason: In the interest of proper planning and sustainable development.

13. Prior to the commencement of development, the Developer shall liaise with the Planning Authority regarding the Green Space Factor score for the proposed development. The developer shall submit to the Planning Authority for written approval an updated Green Space Factor proposal demonstrating compliance with the minimum score having regard to the relevant land use zoning. Should proposals to meet the requirements of the Green Space Factor require amendments to the landscaping scheme hereby approved then written approval from the Planning Authority for such amendments to the landscaping scheme shall be obtained prior to the commencement of development. In the event that the minimum Green Space Factor cannot be secure on-site then the developer will further liaise with the Planning Authority to explore alternative options for compliance including potential off-site solutions and partnership with local groups.

Reason: In the interest of visual amenity and to enhance the ecological value of the site.

14. The construction of the development shall be managed in accordance with a Construction and Environmental Management Plan, which shall be submitted to, and agreed in writing with, the Planning Authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including:
- a) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
 - b) Location of areas for construction site offices and staff facilities;
 - c) Details of site security fencing and hoardings;
 - d) Details of on-site car parking facilities for site workers during the course of construction;

- e) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;
- f) Measures to obviate queuing of construction traffic on the adjoining road network;
- g) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
- h) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public road or footpath during the course of site development works;
- i) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;
- j) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained. Such bunds shall be roofed to exclude rainwater;
- k) Off-site disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;
- l) Means to ensure that surface water run-off is controlled such that no silt or other pollutants enter local surface water sewers or drains.
- m) A record of daily checks that the works are being undertaken in accordance with the Construction Management Plan shall be available for inspection by the Planning Authority.

Reason: In the interest of amenities, public health and safety and environmental protection.

15. Prior to the commencement of development, the Developer shall enter into a Connection Agreement with Uisce Éireann to provide for a service connection to the public water supply and/or wastewater collection network.

Reason: In the interest of public health and to ensure adequate water/wastewater facilities.

16. The 45 no. standby generators shall be powered by renewable fuel sources and there shall be a restriction on the use of fossil diesel. Testing shall not exceed 100 hours per annum. Prior to the operation of the development, the Applicant shall submit to the Planning Authority, written confirmation of what

renewable fuel source is to be utilised (i.e. HVO or other renewable diesels).

Reason: In order to power the proposed development through renewable energy.

17. The Applicant shall liaise with Parks and Public Realm Section and other relevant departments in relation to provision of Public Art.

Reason: In the interest of visual amenity and to accord with the policy of the current County Development Plan.

18. Prior to the commencement of development, the Developer shall liaise with the Irish Aviation Authority (IAA), Weston Airport, and the Department of Defence/Irish Air Corps at Casement Aerodrome with regard to the use of cranes during construction. Following consultation, a strategy shall be prepared and agreed in writing by the Planning Authority prior to the use of any cranes on site.

Reason: In the interest of aviation safety and public safety.

19. Prior to commencement of development, the developer shall lodge with the Planning Authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the Planning Authority, to secure the satisfactory reinstatement of the site upon cessation of the project coupled with an agreement empowering the Planning Authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the Planning Authority and the Developer or, in default of agreement, shall be referred to An Coimisiún Pleanála for determination.

Reason: To ensure satisfactory reinstatement of the site.

20. 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 Coimisiún Pleanála to determine the proper application of the terms of the Scheme.

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.

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.

Terence McLellan
Senior Planning Inspector

11th September 2025

14.0 Appendix 1: AA Screening Determination

Screening for Appropriate Assessment Test for likely significant effects				
Step 1: Description of the project and local site characteristics				
Brief description of project		Data storage facility and all associated site works. This is a First Party appeal against the decision of South Dublin County Council to refuse planning permission.		
Brief description of development site characteristics and potential impact mechanisms		A full description of the development site is set out in Section 1 of the Inspector’s Report. The site is located within an existing business park campus alongside two existing data centre facilities. The site is peri-urban, fully serviced, and sits in a transitional zone between business zoned lands and rural. There is a water course running through the site. The proposed development is described in detail in Section 2.1 of the Inspector’s Report. In summary, the proposal is for a ten year planning permission for the redevelopment of the site to provide a 72,400m2 data storage facility (DC3) which would incorporate eight data halls with associated support areas, a high voltage (HV) compound, offices, staff facilities, a loading area, mechanical yards (MYD) and electrical yards (EYD), internal and external utilities, and ancillary buildings		
Screening report		Appropriate Assessment Report (Combined Screening and NIS) Arup, June 2024.		
Natura Impact Statement		Appropriate Assessment Report (Combined Screening and NIS) Arup, June 2024.		
Relevant submissions		None.		
Step 2. Identification of relevant European sites using the Source-pathway-receptor model				
Ten European sites were identified as being located within a potential zone of influence. Having regard to meaningful pathways, only four have been considered for screening and are detailed in Table 1 below.				
European Site (code)	Qualifying interests ¹ Link to conservation objectives (NPWS, date)	Distance from proposed development (km)	Ecological connections ²	Consider further in screening ³ Y/N

<u>Site 1</u> South Dublin Bay SAC (Site Code 0000210).	Mudflats and sandflats not covered by seawater at low tide (1140). Annual vegetation of drift lines (1210). Salicornia and other annuals colonising mud and sand (1310). Embryonic shifting dunes (2110). Link to Conservation Objectives: ConservationObjectives.rdl	15.2km	There is a weak hydrological pathway via the surface water network which ultimately drains to the River Liffey and the waters of Dublin Bay. There is a weak connection via wastewater which is discharged to Dublin Bay after treatment at Ringsend WWTP.	Yes.
<u>Site 2</u> North Dublin Bay SAC (Site Code 0000206).	Mudflats and sandflats not covered by seawater at low tide (1140). Annual vegetation of drift lines (1210). Salicornia and other annuals colonising mud and sand (1310). Atlantic salt meadows (Glauco-Puccinellietalia maritimae) (1330). Mediterranean salt meadows (Juncetalia maritimi) (1410). Embryonic shifting dunes (2110). Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (2120). Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130). Humid dune slacks (2190).	18.2km	As for site 1.	Yes.

	Petalophyllum ralfsii (Petalwort) (1395). Link to Conservation objectives: ConservationObjectives.rdl			
<u>Site 3</u> South Dublin Bay and River Tolka Estuary SPA (Site Code 0004024).	Light-bellied Brent Goose (Branta bernicla hrota) (A046). Oystercatcher (Haematopus ostralegus) (A130). Ringed Plover (Charadrius hiaticula) (A137). Grey Plover (Pluvialis squatarola) (A141). Knot (Calidris canutus) (A143). Sanderling (Calidris alba) (A144). Dunlin (Calidris alpina) (A149). Bar-tailed Godwit (Limosa lapponica) (A157). Redshank (Tringa totanus) (A162). Black-headed Gull (Chroicocephalus ridibundus) (A179). Roseate Tern (Sterna dougallii) (A192). Common Tern (Sterna hirundo) (A193). Arctic Tern (Sterna paradisaea) (A194).	15.2km	As for site 1.	Yes.

		Wetland and Waterbirds (A999). Link to Conservation Objectives: ConservationObjectives.rdl			
Site 4 North Island (Site Code 0004006).	Bull SPA	Light-bellied Brent Goose (Branta bernicla hrota) (A046). Shelduck (Tadorna tadorna) (A048). Teal (Anas crecca) (A052). Pintail (Anas acuta) (A054). Shoveler (Anas clypeata) (A056). Oystercatcher (Haematopus ostralegus) (A130). Golden Plover (Pluvialis apricaria) (A140). Grey Plover (Pluvialis squatarola) (A141). Knot (Calidris canutus) (A143). Sanderling (Calidris alba) (A144). Dunlin (Calidris alpina) (A149). Black-tailed Godwit (Limosa limosa) (A156). Bar-tailed Godwit (Limosa lapponica) (A157). Curlew (Numenius arquata) (A160). Redshank (Tringa totanus) (A162).	18.2km	As for site 1.	Yes.

	Turnstone (Arenaria interpres) (A169). Black-headed Gull (Chroicocephalus ridibundus) (A179). Wetland and Waterbirds (A999). Link to Conservation objectives: North Bull Island SPA National Parks & Wildlife Service			
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Step 3. Describe the likely effects of the project (if any, alone or in combination) on European Sites

The proposal would not result in any direct effects on any of the identified European sites, however there is a connection via the surface water network and the River Liffey which discharges to Dublin Bay in addition to the wastewater network which also discharges to Dublin Bay after treatment at Ringsend WWTP.

The proposed development site is generally brownfield and whilst no demolition works would be required, there would be a significant extent of earthworks, including works to reroute an existing watercourse through the site. There is therefore potential for sediment, silt and dust laden surface water to ultimately enter the River Liffey during the construction period in addition to contamination through spillage/hydrocarbons from mechanical plant. In adopting a precautionary approach, in the absence of specific mitigation measures regarding the in stream works, the potential for downstream impacts to the European sites of Dublin Bay cannot be ruled out.

AA Screening matrix

Site name Qualifying interests	Possibility of significant effects (alone) in view of the conservation objectives of the site*	
	Impacts	Effects
Site 1: South Dublin Bay SAC (Site Code 0000210). QI list as above.	Potential for sediment, silt, dust, chemicals to enter the River Liffey via the surface water network during the construction phase resulting in water degradation impacts.	Potential impacts on water quality as a result of sediment, silt, dust, contaminants, and hydrocarbons entering the water.
	Likelihood of significant effects from proposed development (alone): Yes.	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
	Impacts	Effects

Site 2: North Dublin Bay SAC (Site Code 0000206). QI list as above.	As for Site 1.	As for Site 1.
	Likelihood of significant effects from proposed development (alone): Yes.	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
	Impacts	Effects
Site 3: South Dublin Bay and River Tolka Estuary SPA (Site Code 0004024). QI list as above.	As for Site 1.	As for Site 1.
	Likelihood of significant effects from proposed development (alone): Yes	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
	Impacts	Effects
Site 4: North Bull Island SPA (Site Code 0004006). QI list as above.	As for Site 1.	As for Site 1.
	Likelihood of significant effects from proposed development (alone): Yes	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Step 4 Conclude if the proposed development could result in likely significant effects on a European site		
Having regard to the information contained within the Applicant's Screening Assessment, my site inspection, a review of the conservation objectives and supporting documents, and adopting a precautionary principle, I consider that in the absence of mitigation measures beyond best practice construction methods, the proposed development has the potential to result in significant effects on the European sites of Dublin Bay as set out above.		

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Screening Determination

Finding of likely significant effects

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the Applicant, I conclude that the proposed development could result in significant effects on the European sites of Dublin Bay. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] of the proposed development is required.

15.0 Appendix 2: Appropriate Assessment Stage 2.

Appropriate Assessment				
The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections 177V [or S 177AE] of the Planning and Development Act 2000 (as amended) are considered fully in this section.				
Taking account of the preceding screening determination, the following is an appropriate assessment of the implications of the proposed mixed use office development in view of the relevant conservation objectives of South Dublin Bay SAC, North Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, and North Bull Island SPA, based on scientific information provided by the Applicant. The information relied upon includes the following: • Natura Impact Statement prepared by Arup • Construction Environmental Management Plan • Ecological Impact Assessment (Scott Cawley) • Surface Water Management Plan (within the CEMP) • Site Specific Flood Risk Assessment I am satisfied that the information provided is adequate to allow for Appropriate Assessment. I am satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity are included and assessed for effectiveness.				
Submissions/observations				
None.				
Site 1 - South Dublin Bay SAC (Site Code 0000210). Summary of Key issues that could give rise to adverse effects (from screening stage): [examples] (i) Water quality degradation (construction phase) See Tables 4, 6 and 7 of the NIS				
Qualifying Interest features likely to be affected	Conservation Objectives	Potential adverse effects	Mitigation measures (summary)	

			Section 8 of NIS	
Mudflats and sandflats not covered by seawater at low tide (1140). Annual vegetation of drift lines (1210). Salicornia and other annuals colonising mud and sand (1310). Embryonic shifting dunes (2110). Link to Conservation Objectives: ConservationObjectives.rdl	Maintain favourable conservation condition	Water quality degradation through dust, silt, sediment, contaminants/hydrocarbons, foul water.	Application of industry standard controls and best practice measures. Implementation of a CEMP and a Surface Water Management Plan. Monitoring by an Ecological Clerk of Works. Pollution control measures. Protection of watercourses. Air quality and dust monitoring.	
Site 2 - North Dublin Bay SAC (Site Code 000206). Summary of Key issues that could give rise to adverse effects (from screening stage): [examples] (i) Water quality degradation (construction phase) See Tables 4, 6 and 7 of the NIS				
Qualifying Interest features likely to be affected	Conservation Objectives	Potential adverse effects	Mitigation measures (summary)	
			Section 8 of NIS	
Mudflats and sandflats not covered by seawater at low tide (1140). Atlantic salt meadows (Glauco-Puccinellietalia maritima) (1330).	Maintain favourable conservation condition.	As for Site 1.	As for Site 1.	

Mediterranean salt meadows (Juncetalia maritimi) (1410). Petalophyllum ralfsii (Petalwort) (1395). Annual vegetation of drift lines (1210). Salicornia and other annuals colonising mud and sand (1310). Embryonic shifting dunes (2110). Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (2120). Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130). Humid dune slacks (2190). Petalophyllum ralfsii (Petalwort) (1395).	To restore favourable conservation condition			
Site 3 - South Dublin Bay and River Tolka Estuary SPA (Site Code 0004024). Summary of Key issues that could give rise to adverse effects (from screening stage): [examples] (i) Water quality degradation (construction phase) See Tables 4, 6 and 7 of the NIS				

Qualifying Interest features likely to be affected	Conservation Objectives	Potential adverse effects	Mitigation measures (summary)	
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) (A046). Oystercatcher (<i>Haematopus ostralegus</i>) (A130). Ringed Plover (<i>Charadrius hiaticula</i>) (A137). Knot (<i>Calidris canutus</i>) (A143). Sanderling (<i>Calidris alba</i>) (A144). Dunlin (<i>Calidris alpina</i>) (A149). Bar-tailed Godwit (<i>Limosa lapponica</i>) (A157). Redshank (<i>Tringa totanus</i>) (A162). Black-headed Gull (<i>Chroicocephalus ridibundus</i>) (A179). Roseate Tern (<i>Sterna dougallii</i>) (A192). Common Tern (<i>Sterna hirundo</i>) (A193). Arctic Tern (<i>Sterna paradisaea</i>) (A194). Wetland and Waterbirds (A999).	Maintain the favourable conservation condition. Grey Plover is proposed for	As for Site 1.	As for Site 1.	

Grey Plover (<i>Pluvialis squatarola</i>) (A141).	removal from the list of Special Conservation Interests for South Dublin Bay and River Tolka Estuary SPA.			
Site 4 - North Bull Island SPA (Site Code 0004006). Summary of Key issues that could give rise to adverse effects (from screening stage): [examples] (i) Water quality degradation (construction phase) See Tables 4, 6 and 7 of the NIS				
Qualifying Interest features likely to be affected	Conservation Objectives	Potential adverse effects	Mitigation measures (summary)	
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) (A046). Shelduck (<i>Tadorna tadorna</i>) (A048). Teal (<i>Anas crecca</i>) (A052). Pintail (<i>Anas acuta</i>) (A054). Shoveler (<i>Anas clypeata</i>) (A056). Oystercatcher (<i>Haematopus ostralegus</i>) (A130). Golden Plover (<i>Pluvialis apricaria</i>) (A140).	Maintain the favourable conservation condition.	As for Site 1.	As for Site 1.	

Grey Plover (<i>Pluvialis squatarola</i>) (A141).				
Knot (<i>Calidris canutus</i>) (A143).				
Sanderling (<i>Calidris alba</i>) (A144).				
Dunlin (<i>Calidris alpina</i>) (A149).				
Black-tailed Godwit (<i>Limosa limosa</i>) (A156).				
Bar-tailed Godwit (<i>Limosa lapponica</i>) (A157).				
Curlew (<i>Numenius arquata</i>) (A160).				
Redshank (<i>Tringa totanus</i>) (A162).				
Turnstone (<i>Arenaria interpres</i>) (A169).				
Black-headed Gull (<i>Chroicocephalus ridibundus</i>) (A179).				
Wetland and Waterbirds (A999).				

Assessment of issues that could give rise to adverse effects view of conservation objectives

(i) Water quality degradation

The main risk for significant effects relates to the construction phase and the potential for effects in terms of water quality degradation where silt/sediment laden surface water could reach the River Liffey. This could also include other contaminants such as hydrocarbons and other chemicals associated with the construction period. There is also a risk of dust from the site being blown into watercourses the river. Whilst the connection is weak and contaminants are likely to be dispersed and dilute over the significant downstream distance, on a precautionary basis, should a major pollution or sedimentation event occur then water quality could be affected and therefore mitigation measures are recommended.

Mitigation measures and conditions A full suite of mitigation is included in the technical chapters of the EIAR. In terms of the NIS, mitigation is set out in detail in Section 8 and includes: • Implementation of a Construction Environmental Management Plan • Implementation of a Surface Water Management Plan • Adherence to best practice measures • Monitoring and the appointment of an Ecological Clerk of Works • Protection of watercourses • Pollution control measures The measures set out above are not exhaustive but are focused on the main risk from the development. The measures above are expanded upon in detail in the NIS and further measures are included in the EIAR. I am satisfied that the measures outlined in Section 8 would successfully interrupt the source-pathway-receptor model and reduce possible effects to a non-significant level, thereby preventing adverse effects.	
In-combination effects I am satisfied that in-combination effects have been assessed adequately in the NIS. The Applicant has demonstrated satisfactorily that no significant residual effects would remain post the application of mitigation measures and there is therefore no potential for in-combination effects.	
Appropriate Assessment Conclusion: Integrity Test In screening the need for Appropriate Assessment, it was determined, on the basis of a precautionary approach, that the proposed development could result in significant effects on: • South Dublin Bay SAC (Site Code 0000210). • North Dublin Bay SAC (Site Code 0000206). • South Dublin Bay and River Tolka Estuary SPA (Site Code 0004024). • North Bull Island SPA (Site Code 0004006). It was determined that the development would have potential for significant effects in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of S177U/ 177AE was required. Following an examination, analysis and evaluation of the NIS and all associated material submitted, I consider that adverse effects on site integrity of the European sites set out above can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects. My conclusion is based on the following: • Detailed assessment of construction and operational impacts.	

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| <ul style="list-style-type: none">• Effectiveness of mitigation measures proposed including construction environmental management measures, surface water management, pollution control, protection of watercourses and appropriate monitoring and supervision by and Ecological Clerk of Works.• Application of planning conditions to ensure adherence to these measures.• The proposed development would not affect the attainment of conservation objectives for the European sites of Dublin Bay or prevent or delay the restoration of favourable conservation conditions. |
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