Inspector's Report

ABP-317936-23

Development	10-year permission for modifications to permitted data centre granted under planning register reference number SD21A/0186 consisting of reconfiguration and alterations to data centre building, on a site bounded to the east and south by Grange Castle Golf Club, to the north by Nangor Road (R134) and to the west by an estate road known as Falcon Avenue. The application is accompanied by a Natura Impact Statement.
Location	Plot 100, Profile Park, Nangor Road, Clondalkin, Dublin 22
Planning Authority	South Dublin County Council
Planning Authority Reg. Ref.	SD22A/0156
Applicant(s)	Equinix (Ireland) Ltd.
Type of Application	Permission (10 year)
Planning Authority Decision	Refuse Permission

Type of Appeal	First Party v. Decision
Appellant(s)	Equinix (Ireland) Ltd.
Observer(s)	None.
Date of Site Inspection	3rd December 2024
Inspector	Louise Treacy

1.0 Site Location and Description

1.1. The subject site has a stated area of c. 2.65 ha and forms part of Profile Park Business Park, which is located on southern side of the Nangor Road, Clondalkin, Dublin 22, approx. 3 km west of Clondalkin village. The site is located on the eastern side of the roundabout entrance into the business park and is bounded by the Nangor Road (R134) to the north, by Grange Castle Golf Club to the south and east and by an internal estate road known as Falcon Avenue to the west.

1.2. The site is undeveloped, having originally been in agricultural use, and is characterised by areas of hardcore and rubble across its northern and central portions and overgrown vegetation across its southern extent. The eastern and southern site boundaries adjoining Grange Castle Golf Course are defined by a drainage ditch and hedgerow. The land adjoining these boundaries was inaccessible at the time of the inspection due to the extent of vegetation growth.

1.3. The site boundary adjoining the Nangor Road is characterised by metal fencing with a mature planted hedge to the rear. A wooden fence and a mature planted hedge extend along the northern portion of the eastern site boundary within the business park, with the southern end of this boundary being open and undefined. A vehicular entrance has been created towards the south-western corner of the site adjacent to Falcon Avenue and is currently blocked off by 2 no. concrete bollards.

1.4. At the time of the inspection, a significant amount of construction activity was ongoing on the neighbouring lands within the business park, with a number of large box-type industrial units noted to be partially or fully completed.

1.5. Kilcarbery Park is located on the northern side of the Nangor Road, opposite the subject site. This development is also characterised by box-type commercial units fronting onto the regional road. A 2-storey residential development (Nangorlea) which appears to be subdivided into apartment units and a Circle K filling station adjoin Kilcarbery Park opposite the subject site. Casement Aerodrome is located approx. 1.5 km to the south of the site.

2.0 **Proposed Development**

2.1. The proposed development will consist of modifications to the permitted data centre on the subject site granted under SDCC Reg. Ref. SD21A/0186 comprising the following:

- Reconfiguration and alterations to the data centre building to include removal of front of house offices at third floor level, alterations to floor levels at second floor to provide consistency between front of house and data halls, parapet height increase of front of house to c. 16.8 m, provision of storage at second floor level in lieu of relocated internal generators to the external generator yard and associated elevational alterations.
- Extension of loading dock at ground floor level by c. 60 m^2 in area with minor height increase to c. 5.3 m.
- Removal of 3 no. air plenums to the front (north) elevation and provision of screening to generator flues in lieu of omitted plenums.
- Alterations to roof level to include removal of 2 m high gantry screening.
- Alterations to the permitted generator plant yard to the north of the data centre to include the removal of fuel tanks, reconfiguration of plant and generators, provision of 2 no. additional external generators (increase from 5 no. to 9 no. external generators), provision of 4 no. additional external plant rooms, provision of diesel pump tank cabinets and stepover, relocation of generator yard doors and enlarged generator yard to accommodate the proposed modifications, increase in plant areas by c. 77 m^2.
- Reconfiguration of plant within the permitted chiller plant yard to the south of the data centre.
- Removal of 1 no. sprinkler/water tank and removal of stairs and door to the side of the waste compound.
- Reconfiguration of car parking and motorcycle spaces and removal of 1 no. accessible space. 64 no. total car parking spaces.

2.2. The proposal also includes provision of an on-site gas power generation compound (OSPG - c. 2,604 m^2) in the area previously reserved for a future data centre. The

compound comprises 7 no. modular plant rooms (totalling c. 180 m^2 in area), 10 no. gas-fired generators and associated flues c. 14.7 m high, gas skid, associated modular plant, boundary treatment surrounding the compound c. 6.5 m high and 2 no. vehicular access points including general and emergency access; all associated site development works, services provision, drainage works, access, landscaping and boundary treatment works.

2.3. No buildings are proposed above the existing ESB and SDCC wayleaves to the west and north of the site. The overall gross floor area of the development is reduced by c. 44 m^2 to c. 9,795 m^2 from that previously permitted under SDCC Reg. Ref. SD21A/0186.

2.4. The permitted data centre building (known as DB8) extends in an east-west direction across the central/northern portion of the site at a set-back of approx. 37 m from the northern site boundary adjoining the Nangor Road. The building (as amended) will consist of a 3-storey office block at its western end and a 3-storey data centre at its eastern end. The overall height of the data centre ranges from c. 20.3 m to the top of the flue screens on the northern façade to c. 20.9 m to Stair B at roof level (excluding roof ladder). A yard/plant area and surface car parking adjoin the northern (front) façade of the building. Further yard/plant areas, a deliveries yard and 2 no. loading bays adjoin its southern (rear) façade. The entrance into the data centre is proposed within the eastern façade of the building and is characterised by a plaza space with hard and soft landscaping and further parking (universal access, electric charging points, van and motorbike) spaces.

2.5. The proposed OSPG extends across the south-western portion of the site, parallel to Falcon Avenue. The compound is screened by a wall of c. 6.5 m high constructed of composite panels in light grey colour. A green wall is proposed to the north-west and north-east façade of the OSPG enclosure to soften its appearance in views from Falcon Avenue and the entrance plaza. Native tree planting is also proposed in front of the enclosure.

2.6. The vehicular access is located at the south-western end of the site adjacent to Falcon Avenue and connects with the internal access road which loops around the front and rear of the data centre building and the OSPG. A pedestrian/cycle entrance is proposed at the northern end of the western site boundary. A landscaped buffer is

proposed extending along the northern, eastern and southern site boundaries. It includes landscaped screening and berms within the northern boundary, and a swale and attenuation pond within the eastern and southern boundaries respectively adjoining Grange Castle Golf Course. A further landscaped strip/hedge is proposed along the western site boundary adjoining Falcon Avenue.

2.7. A 10-year planning permission has been sought in this instance.

3.0 Planning Authority Decision

3.1. Decision

3.1.1. South Dublin County Council issued Notification of the Decision to Refuse Permission for the proposed development on 8th August 2023 for 1 no. reason as follows:

"Having regard to the existing insufficient capacity in the electricity network (grid), the lack of a fixed connection agreement to connect to the grid, the lack of significant on-site renewable energy to power the proposed development, the lack of evidence provided in relation to the applicant's engagement with Power Purchase Agreements (PPAs) in Ireland, and the reliance on a gas powered plant to provide energy to the development, it is considered that the applicant has failed to demonstrate that the proposed development 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".

3.2. Planning Authority Reports

3.2.1. **Planning Reports (25th July 2022, 17th November 2022 and 8th August 2023)**

3.2.2. Following an initial assessment of the planning application, South Dublin County Council's Planning Officer recommended that **Further Information** be requested in relation to 9 no. items as summarised below:

3.2.3. **Item No. (1):** The applicant is requested to set out how the proposed power plant is in keeping with the land use matrix of the development plan given that it has been

stated that the development is not “public services” until such time as the ESB confirms terms and conditions for a grid connection.

3.2.4. **Item No. (2):** The applicant is requested to provide the following details in relation to power generation on site:

- The appropriateness of the proposal for an on-site gas plant.
- More details regarding the alternative sources of power generation assessed as part of the alternatives (including renewables).
- Consider incorporating a portion of renewable energy generation.
- Details of the future proofing of the data centre and gas power plant to adapt to an alternative energy supply.
- Long term plan for the gas-powered generation plant when the data centre is connected to the grid.
- Details of any connection agreements with Eirgrid/ESB and any consultation undertaken.
- Details of any consultation undertaken with Gas Networks Ireland (GNI).
- Information on whether the existing site is serviced in terms of utilities and if not, proposals in relation to same.
- Details of the connection to the surrounding area and national gas grid.

3.2.5. **Item No. (3)**: The applicant is requested to engage with the Property Management Branch of the Department of Defence in relation to potential impacts on Casement Aerodrome.

3.2.6. **Item No. (4):** The applicant is requested to provide correspondence from the Commission for Regulation of Utilities (CRU)/Eirgrid that connection is feasible, the timeline for the connection and any consultations undertaken, including with the EPA.

3.2.7. **Item No. (5):** Provide a justification for a 10-year permission.

3.2.8. **Item No. (6):** The applicant is requested to provide the following additional details in relation to design:

(a) Alterations to DB8:

- Extension of loading dock at ground floor level could potentially have a significant impact on the main entrance plaza. The applicant is requested to provide further details of this area, including visuals and details of materials

(b) On site power generator

- The applicant is requested to provide revised elevations detailing the correct orientation of each elevation
- Given the overall length of the building, the Planning Authority would welcome more localised visuals, in particular the north, south and west elevations. This should include a visual incorporating the entrance plaza with DB8

3.2.9. **Item No. (7):** The applicant is requested to:

(a) Submit a report and drawing showing where each surface water catchment is draining to.

(b) Submit a report and drawing to show what flood risk there is for the site and any required mitigation measures.

3.2.10. **Item No. (8):** The Planning Authority is concerned that the EIA screening report has not considered the cumulative impact of recently permitted developments, particularly within Profile Park. The applicant is requested to undertake a revised screening and if necessary, undertake a full EIA.

3.2.11. **Item No. (9):** The applicant is requested to provide a report demonstrating that the proposed development is in accordance with the South Dublin County Development Plan 2022-2028.

3.2.12. The applicant submitted a **Response to the Request for Further Information** on 21st October 2022 which can be summarised as follows:

3.2.13. **Item No. 1**: There has been no confirmation from EirGrid or ESBN regarding the technical and commercial details of the power supply connection for the data centre development. To progress the project without national power supply, the applicant proposes to construct a privately-owned and operated OSPG at their own expense.

The power plant will be supplied with energy by GNI as per a signed connection agreement. The plant is compatible with and can be operated using hydrogen/natural gas mix or pure hydrogen. It is also equipped with a Battery Energy Storage System that can be used mainly for frequency regulation and spinning reserves as well as peak saving.

3.2.14. The proposed development is a private development and is not connected to the electricity grid nor is it considered a public service but rather an ancillary development to a permitted data centre.

3.2.15. **Item No. 2:** Once connected to the grid, the proposed power plant will be able to contribute to the security of the national grid and the overall network de-carbonisation strategy. A number of options were assessed before selecting natural gas engine generators (reciprocating engines) as the most suitable solution for this application. These include natural gas generators (turbines, single cycle), diesel generators (reciprocating engines) and natural gas fuel cells. A high-level assessment of solar and wind and bio-diesel was also undertaken.

3.2.16. Whilst the use of on-site renewable energy was assessed for the project, it is the applicant's intent to provide a power plant solution that is ready to interface, operate and support Ireland's decarbonised utilities from 2030 onwards. Once the project receives a utility power supply, this will directly allow the wider transmission electrical grid to take on more input power from wind and solar sources knowing that projects like this one, can self-support power during times when the sun and wind sources are not at full levels of production. Ultimately the power plant can operate on 100% hydrogen, which is in line with GNI future development plans. Once the development is connected to the grid, it is Equinix corporate policy to purchase green energy through Corporate Power Purchase Agreements (PPAs) wherever these are available.

3.2.17. No technical or commercial offer has been received from ESB, but discussions have been held with their representatives to understand in principle the likely supply arrangements and optimum entry points to the site. The applicant already has a signed connection agreement with GNI and has met with representatives on site.

3.2.18. There are no existing utilities serving the site and new utility landing points will be required. The status of each has been confirmed.

3.2.19. GNI has confirmed that the permitted development will receive a 45MW connection @ 400mbar which will be served by two streams. A map of the local distribution network and proposed connection points for the development has been provided.

3.2.20. **Item No. 3**: The additional flues were discussed with Baldonnelll Airport and the Dept. of Defence. On foot of the recommendation of the Dept. of Defence, thermal plume modelling was undertaken to determine potential impacts of the plumes associated with the OSPG on aircraft in the vicinity of Casement Aerodrome. In summary, the results show that beyond 9 m above the top of the stack (104.2 m OD), the levels of oxygen, temperature and vertical velocity will have returned to accepted/ambient levels. There should be no impact on operations at Casement Aerodrome based on the 9 m plume and aircraft will not fly below this level. All construction and operation phases of the development and potential impacts on flight procedures and communication, navigation and surveillance equipment have been assessed and are considered acceptable.

3.2.21. **Item No. 4:** The applicant met with the CRU in September 2022 and were advised that as the development does not have a utility power connection, it cannot be assessed for compliance with the CRU Directives for Data Centres. It was further advised that an application could be made for a license authorising the power plant to be constructed and to generate power. To obtain these licences and CRU approval, planning approval is required from SDCC. There has been no direct discussion with the EPA. While the proposed development will result in direct GHG emissions, these will be regulated under the Emission Trading Scheme (ETS) and thus impact to climate is deemed direct, negative, long-term and slight.

3.2.22. **Item No. 5**: A 10-year permission is required to allow the OSPG equipment to be installed in phases to match the power load increase of the permitted data centre, once operational. All site infrastructure works, including roads, drainage, façades and screening of the proposed OSPG development will be completed as part of the initial works, which are anticipated to be completed within 3 years. The only element that will be deferred from the initial installation phase will be a number of OSPG equipment units (gas engines and associated ancillary electrical equipment). A suitably worded condition in relation to this matter is invited.

3.2.23. **Item No**. **6:** Photomontages have been prepared showing additional views of the northern, western and southern elevations of the OSPG and data centre from the entrance to Profile Park and the internal estate road. The proposal will have a nominal visual impact on the surrounding built environment. The Design Statement submitted with the application notes the type of materials proposed for the built structures. The correct orientation has been provided on the relevant architectural drawings.

3.2.24. **Item No**. **7:** Details of the greenfield runoff rate calculations for each of the 2 no. surface water catchments associated with the proposed development have been provided. Perimeter planting will also contribute to surface water drainage. There are 5 no. flow control devices in total. The surface water drainage will be restricted to the greenfield runoff rate. No additional attenuation storage elements are required for the OSPG development as they have already been incorporated into the drainage system and attenuation pond permitted under the parent permission. The OSPG will drain by pipes, gulleys and channels towards the central pond where storage capacity for a 1:100-year storm event + 20% climate change has already been catered for.

3.2.25. A Flood Risk Assessment (FRA) was prepared in respect of the parent permission. Increased finished floor levels, SUDs measures including swales, attenuation ponds, permeable paving and hydrobrake mechanisms mitigate against potential flood risk. The level of flood risk on the site is extremely low.

3.2.26. **Item No. 8**: An updated EIAR Screening Statement and Cumulative Air Quality Assessment have been provided. All proposed and permitted development within Profile Park has been assessed and the proposed development, when considered cumulatively, would not result in significant effects on the environment. The proposed development does not require mandatory EIA, nor does it meet the criteria where a sub-threshold EIA would be warranted.

3.2.27. The results of the Cumulative Air Quality Assessment indicate that ambient ground level concentrations comply with the relevant air quality standards for NO_2 for all scenarios modelled.

3.2.28. **Item No**. **9**: On foot of a Draft Ministerial Direction on the South Dublin Development Plan 2022-2028, the use class for data centre shall revert to being ‘open for

consideration' under the EE zoning of the site. Permission already exists on the site for a data centre development. In the absence of a grid connection, an alternative OSPG is required to power the permitted facility.

3.2.29. Following an assessment of the submitted information, South Dublin County Council's Planning Officer recommended that **Clarification of Further Information** be requested in relation to the following items:

3.2.30. **Item No. (1):** The applicant is requested to demonstrate how the amendments to the proposed development are compliant with Policy EDE7 of the 2022-2028 development plan and its associated objectives.

3.2.31. **Item No. (2)(a):** The applicant has not provided an assessment of the appropriateness of the proposals to power the permitted data centre by gas instead of electricity as previously permitted in terms of national, regional and local policy regarding energy requirements and climate change. The following documents are to be considered: (i) National Planning Framework, (ii) Regional Spatial and Economic Strategy, (iii) Climate Action Plan 2021, (iv) SDCC Climate Action Plan, (v) Government Policy Statement on Security of Electricity Supply, (vi) CRU Direction to the System Operators, (vii) Role of Data Centres in Ireland's Enterprise Strategy.

3.2.32. **(b)** The development appears to be reliant on GNI proposals for alternative energy and has not put forward any site-specific proposal in this regard. No renewable energy is proposed on site. The applicant is requested to set out any details of proposed on site renewables, in light of the requirements of Policy EDE7.

3.2.33. **(c)** The applicant is requested to demonstrate that there is sufficient capacity within the relevant water, wastewater and electricity network to accommodate the proposed use in line with EDE7.

3.2.34. **(d)** The applicant is requested to provide further details regarding the long-term proposal for the power plant.

3.2.35. **Item No. (3):** The Planning Authority does not agree with the EIA screening assessment provided. Having regard to the nature of the proposed modifications to power the data centre by gas instead of electricity, the number of similar existing and permitted data centres close to the proposed development and the potential impact on material assets, it is considered that the proposal is likely to result in significant

effects on the environment. The need for EIA cannot, therefore, be excluded at preliminary examination. The applicant is requested to under an EIA of the proposed development.

3.2.36. **Item No. (4):** The applicant is requested to demonstrate how the proposed amendments to the development are compliant with:

- EDE1 Objective 6 and EDE3 Objective 5
- Policies QDP11 and E3, as well as their relevant objectives
- Policy IE6 and the related objectives
- 12.4.2 Green Infrastructure and Development Management
- 12.5.1 Universal Design
- 'The Plan Approach' Compliance Report (paragraph 12.5.2)
- 12.7.5 Car Parking / Charging for Electric Vehicles
- 12.9.2 Enterprise and Employment Areas and Table 12.27: Key Principles for Development within Enterprise and Employment Zones
- 12.9.4 Space Extensive Enterprises
- 12.10.3 Energy from Waste

3.2.37. The applicant submitted a **Response to the Request for Clarification of Further Information** on 26th April 2023 which can be summarised as follows:

3.2.38. **Item No. 1:** The applicant has detailed the compliance of the proposed development with Policy EDE7 (Space Extensive Land Use) and its associated objectives (pages 4-19 of the response cover letter refer).

3.2.39. **Item No. 2 (a):** The applicant has identified how the proposed development complies with the identified national, regional and local policy documents (pages 20-31 of the response cover letter refer).

3.2.40. **Item No. 2 (b):** Solar, wind and biodiesel were considered as alternative renewable fuel options but were discounted as viable alternatives. The site constraints do not facilitate the installation of large-scale on-site renewables to support the entire data centre.

3.2.41. The OSPG plant equipment has been designed to accommodate flexible fuel, should advances be made to the grid in the future. This ensures the plant is future proofed to align with the evolution of the gas grid. The proposed OSPG does not exceed 10 MW in capacity and therefore is not required to provide secondary fuel storage. On-site renewables in the form of PV together with heat pump technology are incorporated into the design for the administrative areas.

3.2.42. The applicant intends to review the procurement of renewable energy for the project where available through biofuels such as biomethane, Guarantees of Origin (GO's) and corporate PPAs for the electrical grid connection solution once a grid connection is available.

3.2.43. **Item No. 2 (c):** The proposed development complies with Policy EDE7 insofar as it relates to sufficient capacity in the water, wastewater and electricity network. Uisce Éireann (Irish Water) has confirmed that water and wastewater connections can be facilitated (pre-connection confirmation of feasibility provided). No technical or commercial offer has been received from ESB Networks. The application for permanent power is for a power supply capacity of 9MW. Discussions have been held with ESBN and the current verbal direction is that a power supply will be available to the development in 6-8 years. The applicant has already received an agreed gas supply with GNI.

3.2.44. **Item No. 2 (d):** The purpose of the OSPG is to generate power until such time as that ESB/Eirgrid can make a formal, technical and commercial proposal to supply power to the site. The plant would be operational until electrical utility supply is available and would act in a flex capacity to allow demand to be removed from the grid if required by the utility provider. Once electricity is available and there is no requirement for flex, the intent is that the OSPG plant would be decommissioned. It is the applicant's strategic target for a Climate Neutral Data Centre and the current operational data centres in Ireland operate entirely on renewable energy. It is the applicant's referred solution to have a grid connection to help meet the company's global strategic targets. Given the uncertainty in relation to a grid connection, medium and long-term options for the OSPG are identified including: (i) medium term – decommission the OSPG plant, (ii) medium term – retain the OSPG plant with a grid connection after 6-8 years of full operation, (iii) long term option – retain the OSPG with no grid connection.

3.2.45. **Item No. 3:** An EIAR has been prepared and submitted to the Planning Authority.

3.2.46. **Item No. 4**

3.2.47. **EDE1 Objective 6** – The permitted data centre is a multi-storey development that maximises the efficiency of the site. The location of the access points aligns with the desire lines in the surrounding pedestrian environment. PV panels are provided at roof level. Excess waste heat arising from the facility can be processed for use by a district heating system should one be developed in the future. A heat recovery building and all necessary space for ducting has been incorporated into the layout and design. Extensive tree planting is provided to the southeast of the site. Perimeter planting contributes to green infrastructure and placemaking.

3.2.48. **EDE3 Objective 5** – The site is proximate to good road infrastructure and rail and bus services. The pedestrian network in Profile Park promotes walking and cycling and the internal environment encourages employees to utilise the outdoor environment.

3.2.49. **Policies QDP11 and E3 and their relevant objectives** – The design team has carefully chosen a range of finishes and materials that are durable and will help to create a high-quality built form at this prominent location. The energy efficient measures which are employed as part of the permitted and proposed development include PV panels, waste heat recovery and rainwater harvesting. An energy statement and Part L compliance report was submitted as part of the parent permission on the site. Equinix are the first operator of colocation data centres to commit to introducing sustainability measures to operate the temperature of their data centres at A1A conditions, which will reduce its overall power use.

3.2.50. **Policy IE6 and related objectives** – A typical ESBN connection will be made to facilitate internal electrical connections and street lighting. In the absence of a grid connection, the permitted data centre will be powered by gas. Therefore, the proposal does not compromise the performance of the national electricity grid.

3.2.51. **Section 12.4.2 Green Infrastructure and Development Management** – The landscape plan for the site includes wildflower and wetland habitats designed with pollinators in mind, tree and hedgerow planting and green roofs and trellises. Hibernacula and habitat piles will also be installed. The site has achieved 22.5% green cover and 12.5% permeable green infrastructure. All available roof space has

been greened as intensive green roofs with substantial native planting. The Green Space Factor for the overall project is 0.44, which is slightly below the requirement of 0.5. The applicant has made every effort to increase green infrastructure on site while balancing the viability of the scheme as permitted and proposed.

3.2.52. **Section 12.5.1 Universal Design** – The permitted and proposed development is a secure facility which will be accessible by employees and verified visitors only. Accessible parking and tactile paving areas are incorporated into the landscape design to facilitate wayfinding and ease of access for all staff and visitors.

3.2.53. **The Plan Approach Compliance Report (paragraph 12.5.2)** – The Design Statement prepared by RKD Architects demonstrates compliance with the Plan Approach.

3.2.54. **Section 12.7.5 Car Parking / Charging for Electric Vehicles** – All parking spaces are provided with EV ducting to facilitate EV charging spaces as required. EV charging points have been installed at 20% of the total parking spaces in line with development plan standards.

3.2.55. **Section 12.9.2 Enterprise and Employment Areas and Table 12.27: Key Principles for Development within Enterprise and Employment Zones** – The proposed development complies with Table 12.27 of the development plan.

3.2.56. **Section 12.9.4 Space Extensive Enterprises** – This item has been addressed in the response to Item No. 1.

3.2.57. **Section 12.10.3 Energy from Waste** – A waste heat recovery building is already permitted under the parent permission. This building is located to the southwest of the OSPG compound to facilitate waste heat arising from the data centre. All infrastructure and ducting are provided in the event a district heating system is developed in the area.

3.2.58. The applicant's Clarification of Further Information Response was deemed to contain significant additional information, and the development was readvertised to the public. Following an assessing the applicant's response, South Dublin County Council's Planning Officer recommended that planning permission be refused for 1 no. reason as set out in Section 3.1.1 of this report.

3.3. Other Technical Reports

3.3.1. **Environment, Water and Climate Change - Public Realm Section (30th June 2022):** No comment or objection.

3.3.2. **Environmental Health Officer (1st July 2022 and 6th July 2023):** Suitable conditions identified in the event permission is granted.

3.3.3. **Water Services Dept. (18th July 2022 and 7th November 2022):** Further information requested in relation to surface water (catchment drainage) and a flood risk report. Following the applicant's Further Information submission, no objections arose to the proposed development subject to conditions.

3.4. Prescribed Bodies

3.4.1. **Transport Infrastructure Ireland (27th June 2022, 8th May 2023 and 28th June 2023):** No observations to make.

3.4.2. **Uisce Éireann (Irish Water) (19th July 2022, 10th November 2022, 13th January 2021 and 24th June 2023):** Confirms that water and wastewater connections can be facilitated.

3.4.3. **Irish Aviation Authority (21st November 2022):** The Safety Regulation Division, Aerodromes has no observations to make.

3.4.4. **Inland Fisheries Ireland (19th May 2023):** Recommends that a condition be attached which prescribes adequate and appropriate SUDS maintenance measures which should be implemented by an appointed management company on an ongoing basis post construction. Notes that any instream works that may be required to make connections for the surface water discharges should only be undertaken at a suitable time of the year (1st July – 30th Sept. inclusive) and should not commence without prior consultation and agreement with IFI.

3.4.5. **Environmental Protection Agency (8th February 2024):** Notes that: (1) an Industrial Emissions Licence may be required for the proposed development, (2) emissions to air from the generators on site could potentially impact air quality, in particular from nitrogen oxides.

3.5. Third Party Observations

3.5.1. Two no. third party observations were made on the application. The issues which are raised can be summarised as follows:

3.5.2. (1) CRU has not been notified of the proposed development, (2) development is premature given the 6–8-year timeline to connect to the grid, (3) EIAR required, (4) no alternative energy supply, (5) limited green roofs and green walls, (6) yellow site notice required, (7) proposed development does not comply with SDCC development plan, national climate obligations or the South Dublin Climate Action Plan, (8) inadequate AA screening report and NIS, (9) increased carbon emissions, (10) disproportionate number of data centres in South Dublin area, (11) water demand, (12) electricity demand, (13) inadequate/deficient EIAR.

3.5.3. Following the applicant's Clarification of Further Information Response, 2 no. further third-party observations were made on the application. The additional issues which are raised can be summarised as follows:

3.5.4. (1) insufficient information submitted to determine the application in accordance with law, (2) information should be provided on the specific model of the proposed generator, (3) the planning authority should define the operational phase timeline given the development's dependence on fossil fuels and EU climate targets, (4) the maximum number of hours the plant will generate in an average year should be defined, (5) absence of necessary infrastructure to power a renewable rich power grid, (6) large generators of electricity at low electrical efficiency raise emissions which imposes costs in terms of climate fines and increased gas prices, (7) Section 37 of the Electricity Act, 1999 (as amended) gives a lot of discretion to the Commission that is not compatible with securing the climate objectives and facilitating public participation in decision-making, (8) the failure of the State to put an enabling framework in place for Direct Lines to incorporate more renewable power into industry should not be used as an excuse to permit additional private thermal generation with private distribution without climate mitigation measures, (9) offsetting fossil fuel use by the use of renewable power purchase agreements is criticised by the European Investment Bank.

4.0 Planning History

4.1. Subject Site

4.1.1. **Planning Authority Reg. Ref. SD21A/0186:** Planning permission granted on 5th May 2022 for the construction of a 3-storey (part 4-storey) data centre known as DB8.

4.1.2. **Planning Authority Reg. Ref. SD12A/0150:** Planning permission granted on 3rd December 2012 for the erection of a 2.4 m high perimeter fence along the Nangor Road boundary (approx. 250 m long) with separate entrance gates for vehicular, bicycle and pedestrian access and the construction of a single-storey security hut with security barriers.

4.1.3. **Planning Authority Reg. Ref. SD07A/1059:** Planning permission granted on 1st April 2008 for Phase 1 of a services and retail centre consisting of 3 no. office blocks.

4.1.4. **Planning Authority Reg. Ref. SD06A/0568/EP:** Extension of duration of permission granted until 19th January 2017.

4.1.5. **Planning Authority Reg. Ref. SD06A/0568:** Planning permission granted on 19th January 2007 for the provision of roads and services infrastructure to facilitate the future development of a business park to be known as 'Profile Park'.

4.2. Recent Planning History on Lands to the West

4.2.1. **ABP Ref. 317446-23; Planning Authority Reg. Ref. SD22A/0420:** Planning permission refused by South Dublin County Council on 29th May 2023 for development including the demolition of existing 2-storey dwelling and associated outbuildings and farm structures and the construction of 1 no. 2-storey data centre with plant at roof level and associated ancillary development.

4.2.2. Permission was refused for 2 no. reasons: (1) the reliance of the proposed development on a predominantly gas powered plant to provide energy to the development, and (2) the Planning Authority is unable to determine whether the information contained within the EIAR allows for adequate assessment of the potential impacts of the proposed development on the receiving environment and

complies with Article 94 of the Planning and Development Regulations, 2001 (as amended).

4.2.3. A 1st party appeal against this decision is currently before the Board.

4.3. Recent Planning History on Lands to South and South-West

4.3.1. **ABP Ref. 320852-24; Planning Authority Reg. Ref. SD24A/0164W:** Planning permission refused by South Dublin County Council on 22nd August 2024 for the expansion of existing Google Ireland Limited operations at Grange Castle Business Park South, including the development of a 72,400 m^2 data storage facility.

4.3.2. Planning permission was refused by South Dublin County Council for 2 no. reasons including: (1) the applicant had 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, (2) the proposed development does not comply with stated Objectives of the South Dublin County Development Plan 2022-2028 in relation to the retention and protection of existing green infrastructure.

4.3.3. A first party appeal against this decision is currently before the Board.

4.3.4. **ABP Ref. 314461-22; Planning Authority Reg. Ref. SD21A/0217:** Planning permission refused by the Board on 14th February 2024 for the removal of an existing unused wastewater treatment facility and the erection of 2 no. data centre buildings, gas powered energy generation compound and all other ancillary buildings and works.

4.3.5. Permission was refused for 1 no. reason relating to: (a) the existing constraints in capacity in the electricity network, (b) the lack of significant on-site renewable energy to power the proposed development, (c) the lack of a fixed connection agreement to connect to the grid and the lack of evidence provided in relation to engagement with EirGrid, and (d) the lack of evidence provided in relation to the applicant's engagement with Power Purchase Agreements (PPAs) in Ireland. Based on the foregoing, the Board was not satisfied the applicant had demonstrated that the proposed use on EE zoned lands, is in accordance with EDE7 Objective 2 and Section 12.9.4 of the South Dublin County Development Plan 2022-2028.

4.3.6. **SD21A/0241:** Planning permission granted on 19th July 2022 for the demolition of the abandoned single storey dwelling and associated outbuilding and the construction of 2 no. 2-storey data centres with plant at roof level of each facility and ancillary development. The development also includes a temporary gas-powered generation plant and diesel-powered back-up generators.

4.3.7. The applicant proposed the removal of the temporary power plant and its replacement with a 50% multi-fuel generation plant at Further Information stage. The plant was proposed to operate primarily on hydrotreated vegetable oil from Q4 2023 to Q1 2025 and will supply and reinforce the national grid on a permanent basis under the Eirgrid DCCOPP which comes into effect in January 2025.

4.3.8. This site is located on the western side of Falcon Avenue, fronting onto the Nangor Road.

4.3.9. **SD21A/0167:** Planning permission granted on 30th August 2022 for the construction of a gas-fired power plant with an electrical output of up to 125MW.

5.0 Policy Context

5.1. South Dublin County Development Plan 2022-2028

5.2. Land Use Zoning

5.2.1. The site is subject to land use zoning EE (Enterprise and Employment) which has the objective “to provide for enterprise and employment related uses”. Data centre uses are open for consideration under this zoning objective.

5.3. Economic Development and Employment

5.3.1. **Policy EDE1: Overarching** - 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.

5.3.2. **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.

5.3.3. **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.

5.3.4. **Policy EDE3: Innovative Economy** - Promote an innovative economy, fostering an environment which supports creativity and new technologies in the places we live, work and invest in, supported through orderly growth at strategic population and employment locations.

5.3.5. **EDE3 Objective 1:** To support the provision of a highly interconnected “ecosystem” or network of entrepreneurs and investors, technologists and innovators in the County.

5.3.6. **Policy EDE5: Building on Clusters** - Support clustering, by creating, maintaining, or upgrading economic strongholds in a favourable business ecosystem.

5.3.7. Section 9.3 of the plan notes that data centres are one of the most space extensive land uses in the County. Dublin is one of the fastest growing data centre markets in Europe with a significant element of this growth located in South Dublin County. Such uses generally have a higher carbon footprint and the plan will encourage 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.

5.3.8. **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.

5.3.9. **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.

5.3.10. **EDE7 Objective 2:** To require that space extensive enterprise demonstrates the following:

- The appropriateness of the site for the proposed use having regard to EDE7 Objective 1.
- Strong energy efficiency measures to reduce their carbon footprint in support of national targets towards a net zero carbon economy, including renewable energy generation.
- 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).
- Sufficient capacity within the relevant water, wastewater and electricity network to accommodate the use proposed.
- Measures to support the just transition to a circular economy.
- Measures to facilitate district heating or heat networks where excess heat is produced.
- A high-quality design approach to buildings which reduces the massing and visual impact.
- A comprehensive understanding of employment once operational.
- A comprehensive understanding of levels of traffic to and from the site at construction and operation stage.
- Provide evidence of sign up to the Climate Neutral Data Centre Pact.

5.3.11. The same criteria are reflected in Section 12.9.4 of the plan (development management) regarding space extensive enterprises.

5.4. Casement Aerodrome

5.4.1. The site is located within the Department of Defence Inner Zone of Casement Aerodrome.

5.4.2. **Policy IE9: Casement Aerodrome** - Safeguard, having regard to the requirements of the Department of Defence, the current and future operational, safety and technical requirements of Casement Aerodrome and facilitate its ongoing development for military and ancillary uses.

5.4.3. **IE9 Objective 2:** To maintain the airspace around Casement aerodrome free from obstacles to facilitate aircraft operations to be conducted safely, as identified in the Development Plan Index map and Map 12 and as outlined in Chapter 12: Implementation and Monitoring.

5.5. South Dublin Climate Change Action Plan 2024-2029

5.5.1. The Climate Change Action Plan sets out mitigation, adaptation and other climate action measures to create a low carbon and climate resilient County. The Plan is centred around actions that collectively address four key targets which are framed by the Climate (Amendment) Act, 2021 and the national Climate Action Plan:

- 50% improvement in the Council's energy efficiency by 2030
- 51% reduction in the Council's 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 communities on climate action.

5.6. Climate Action and Low Carbon Development (Amendment) Act 2021

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

5.7. Climate Action Plan 2024

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

5.7.2. Sectoral emissions ceilings set out the maximum amount of GHG emissions that are permitted in different sectors of the economy during a carbon budgetary period. The ceiling for the built environment commercial sector in the period 2021-2025 is 7 MtCO2 eq. and in the period 2026-2030 is 5 MtCO2 eq.

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

5.8.1. The Strategy notes that data centres comprise core digital infrastructure and play an indispensable role in our economy and society. The current constraints in the electricity system will result in limited capacity for further data centre development in the short term. The Government has agreed a set of national principles that should inform and guide decisions on future data centre development as summarised below.

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

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

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

(4) **Co-location or Proximity with Future-Proof Energy Supply** – a preference for data centre developments in locations where there is the potential to collocate a

renewable generation facility or advanced storage for the data centre, supported by a CPPA, private wire or other arrangement.

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

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

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

5.8.3. Where a 'behind-the-metre' generation solution is proposed with limited or no connection to the electricity system, it is essential that developments are consistent with a planned trajectory to net zero emissions, including through decarbonised gas if applicable and that they do not threaten energy security. 'Islanded' data centre developments that are not connected to the electricity grid and are mainly powered by on-site fossil fuel generation, would not be in line with national policy. Such projects would run counter to emissions reduction objectives and could risk security of supply being transferred from electricity to gas supply.

5.9. Government Policy Statement on Security of Energy Supply (2021)

5.9.1. Section 2 of the Statement identifies most renewable energy generated by 2030 will be from wind and solar. Given the variable nature of these sources, other technologies will be required to support their operation and provide electricity supply when they are not generating. This will require a combination of technologies, including conventional generation typically powered by natural gas. As more wind, solar, storage and interconnection are added to the system, conventional generation is expected to operate less, but sufficient conventional generation capacity will still

be required. It will spend much of its time in reserve for when needed – to balance the system in times of high demand and low wind/solar generation.

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

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

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

5.10.2. The CRU expects that any dispatchable on-site generation that uses fossil fuel sources developed by data centre operators will use natural gas as its fuel source, which the CRU considers to be a transitional fuel in meeting Ireland's Climate Action Plan targets. The CRU also expects that fossil-fuel powered dispatchable on-site generation that is installed by data centre operators will be futureproofed and will have the ability to run, or be capable of being retrofitted to run, on alternative fuel sources such as natural gas/biomethane, natural gas/hydrogen blends, 100% biomethane and 100% hydrogen. The installation of dispatchable on-site generation should be equivalent or greater than the electrical demand of the data centre.

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

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

5.10.4. 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.

5.11. National Planning Framework (NPF)

5.11.1. The NPF is the Government's high-level strategic plan for shaping the future growth and development of the country to the year 2040. The plan sets out a shared set of goals for every community across the country which are expressed as National Strategic Outcomes. National Strategic Outcome No. 8 seeks to transition to a low carbon and climate resilient society.

5.11.2. **National Policy Objective 54:** Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaption objectives, as well as targets for greenhouse gas emissions reductions.

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

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

5.12.1. **Regional Policy Objective 8.25** – Local Authorities shall (inter alia):

- Promote and facilitate the sustainable development of a high-quality ICT network throughout the Region in order to achieve balanced social and economic development, whilst protecting the amenities of urban and rural areas.
- Support the national objective to promote Ireland as a sustainable international destination for ICT infrastructures such as data centres and associated economic activities at appropriate locations.

5.13. Natural Heritage Designations

5.13.1. The appeal site is not located within and does not directly adjoin any Natural Heritage Area. The nearest such sites are the Grand Canal pNHA which is located approx. 1.4 km to the north at its closest point and the Liffey Valley pNHA which is located approx. 4.9 km to the north of the site.

6.0 The Appeal

6.1. Grounds of Appeal

6.1.1. A first party appeal against the Planning Authority's decision has been lodged by the applicant, the grounds of which can be summarised as follows:

- The applicant received confirmation as of 1st June 2023 that the DB8 data centre (Reg. Ref. SD21A/0186 – parent permission) cannot be connected to the grid as the subject site is located within a constrained area.
- The applicant believes that ESBN's refusal is invalid and has subsequently raised a dispute pursuant to Section 34(6) of the Electricity Regulation Act, 1999 (as amended) requesting that the CRU issue a direction to ESBN requiring it to issue a connection offer.
- The verbal direction from ESBN is that a power supply will be available to the development in 6-8 years' time. The OSPG plant is proposed to fuel the development until such time as a connection is available.

- The data centre is different to the “hyperscale” or “single tenant” datacentres that the public are more aware of. It offers retail colocation or International Business Exchanges (IBX) with these facilities hosting many tenants that collocate their IT equipment in individual secure cages.
- This allows customers to take their on-site premises IT infrastructure and move it into modern and highly optimised data centres. This leads to improved security and performance and reduces total energy use.
- The data centre design includes several energy efficient measures to reduce its carbon footprint. Existing site services and road infrastructure will be used. Supplementary power to the administrative areas of the centre will be provided by PV roof panels on the data centre building and above the car parking areas. The development will also include low energy lighting, sensor lighting controls, EV charging points in the parking area and variable speed pumps.
- The Board is invited to attach a condition to a grant of permission which requires the developer to submit details of a corporate PPA prior to the commencement of development, which demonstrates that the energy consumed by the development on site is offset with new renewable energy generation (suggested condition wording included).
- The lack of a grid connection is not an appropriate refusal reason in this case as the proposal does not relate to a connection to the grid. Rather the proposal is for on-site power generation for the data centre and modifications to the permitted development.
- The OSPG will serve the development in the interim. It will consist of gas generators using a gas supply from GNI. It also incorporates a battery energy storage system and gas engines to provide stability. This system will allow the data centre to operate in island mode when required, drawing no power from the grid.
- The OSPG has the capability to act in a flex capacity once it has grid connection to allow the data centre to be removed from the grid if required by the utility operator. This would form part of the connection agreement with

ESBN. CRU/21/124 requires data centre operators to provide on-site power generation to support the security of the grid.

- The applicant has made a commitment to implement a corporate PPA with a renewable energy plant that is in the development stage (2 no. wind projects currently before the Board are referenced), delivering additional renewables directly into the Irish electrical grid (letter provided in Appendix A of the appeal refers). The applicant commits not to commence the operation of the data centre prior to the operation of the renewable energy plant. This will offset the energy that is consumed by the data centre with the production of renewable energy.
- The applicant is committed to sourcing PPAs and to powering the development using renewable energy and considers that the OSPG will allow for a transition towards carbon neutrality that is in line with the National Hydrogen Strategy.
- Due to the site size and height restrictions associated with Casement Aerodrome, it is not possible to generate substantial power from renewable sources such as PV and wind to power the data centre.
- The proposal has included renewable technologies such as photovoltaic panels, heat pumps and provision of a waste heat building to facilitate future connection to a district heating system.
- Hydrogenated vegetable oil and biodiesel were considered as alternative fuel options, but due to the limited space available on the site, it is not possible to store the large volumes of fuel that would be required to run the OSPG plant.
- The proposal is in accordance with relevant CRU regulations. The CRU expects that any dispatchable on-site generation developed by data centre operators that uses fossil fuel sources, will use natural gas. Natural gas is considered a transitional fuel in meeting Ireland's Climate Action Plan targets. The CRU also expects that such projects will be future proofed to have the ability to run, or be capable of being fitted to run, on alternative fuels.
- The proposal is designed to accommodate alternative biofuels. The OSPG plant can run efficiently on natural gas and alternative biofuels such as

biomethane, hydrogen/natural gas mix or pure hydrogen when GNI commence distribution. Natural gas and hydrogen are seen as transitional energy sources that will lead the gas and electricity utility networks to a decarbonised status and will provide support to those utilities in the event insufficient power can be generated by solar and wind.

- Having regard to the Government's Strategy and CRU Direction to System Operators, the proposed gas powered OSPG for use in this private development is considered an appropriate and suitable transition fuel while access to the grid is being established.
- The proposed use is acceptable on EE zoned lands. The Final Ministerial Direction of 18th November 2022 on the county development plan is noted whereby 'data centre' reverted to an 'open for consideration' use under this zoning objective.
- The medium and long-term options for the OSPG are: (1) medium term - decommission the plant, (2) medium term - retain the plant with a grid connection after 6-8 years full operation, (3) long-term - retain the OSPG with no grid connection – assessed in the Climate Chapter of the EIAR.
- The applicant disagrees that the proposed development is not in accordance with EDE7 Objective 2 of the development plan. Every effort has been made to utilise on site renewables as far as possible.
- PV panels and heat pump technology are incorporated into the design of the administrative areas of the data centre which do not have the specific reliability requirements of the data hall.
- The best use of renewable energy for a project of this type is made at the utility level. The proposed OSPG will support the full power requirements of the data halls and the entire development as customers onboard. This project will not only provide additional capacity to meet growing demand for the applicant's services, but also serve to demonstrate how the data centre sector can become a stabilising component of the overall energy system by providing stabilising services to Ireland's power grid.

- The proposal complies with the zoning objective for the site and all relevant national and local planning and environmental policy. It also complies with the Government's statement on the Role of Data Centres in Ireland's Enterprise Strategy.
- The facility is of strategic importance at a national economic level and the Board is requested to grant permission for the proposed development.

6.1.2. The appeal submission includes details of the applicant's engagement with PPAs (Appendix A) and correspondence from ESBN which confirms the applicant's grid connection for the data centre has been refused (Appendix B).

6.2. Planning Authority Response

6.2.1. The Planning Authority submitted an appeal response on 22nd September 2023. The Planning Authority confirms their decision and notes that the issues raised in the appeal have been covered in the Chief Executive's Order.

6.3. Observations

6.3.1. None.

7.0 Assessment

7.1. Having considered the contents of the planning application and appeal, the submissions on file, having regard to relevant national, regional and local planning policy, and having undertaken an inspection of the subject site and surrounding area, I consider that the key issues arising for assessment in this case include:

- Principle of the Development / Compliance with Development Plan Policy
- Environmental Impact Assessment
- Appropriate Assessment

7.2. Each of these issues is considered in turn below.

7.3. Principle of the Development / Compliance with Development Plan Policy

7.3.1. This appeal case relates to proposed modifications to a data centre development which was permitted on the site by South Dublin County Council on 5th May 2022 (Planning Authority Reg. Ref. SD21A/0186 refers). A connection to the national electricity network (grid) to power the permitted data centre cannot be secured at this time and will not be available for a period of 6-8 years. Thus, the purpose of the proposed development is to secure an alternative energy source to power the permitted data centre in the interim. In summary, this will involve the development of an onsite gas power generation compound on the south-western portion of the site, an area which was previously reserved for a future data centre development. The power plant will be supplied with gas provided by GNI.

7.3.2. In refusing permission for the proposed development, South Dublin County Council had regard to the existing insufficient capacity in the grid, the lack of a fixed connection agreement to the grid, the lack of significant on-site renewable energy to power the proposed development, the lack of evidence in relation to the applicant's engagement with PPAs in Ireland and the reliance on a gas-powered plant to provide energy to the permitted development. Based on the foregoing, it was considered that the applicant had failed to demonstrate that the proposed development 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.

7.3.3. In responding to this refusal reason, the applicant submits that the lack of a grid connection is not an appropriate refusal reason as the proposed development does not relate to a connection to the grid. The applicant submits that the gas powered OSPG also incorporates a battery energy storage system and gas engines to provide stability which will allow the data centre to operate in island mode when required, drawing no power from the grid. The applicant will enter a corporate PPA with a renewable energy plant prior to the operation of the data centre and has suggested the wording of a condition in relation to this matter should the Board decide to grant planning permission for the proposed development.

7.3.4. The applicant also submits that, due to the site size, it is not possible to generate substantial power from renewable sources or to store sufficient volumes of alternative fuels to power the plant. The applicant highlights that the CRU expects

that dispatchable on-site power generation that uses fossil fuel sources will use natural gas, which is considered a transitional fuel in meeting Ireland's Climate Action Plan targets. The applicant disagrees that the proposed development does not accord with EDE7 Objective 2 of the development plan and notes that every effort has been made to use on-site renewables as far as possible. This includes photovoltaic panels, heat pumps and the provision of a waste heating building to facilitate a future connection to a district heating system.

7.3.5. EDE7 Objective 2 and Section 12.9.4 of the development plan set out the criteria which must be demonstrated in applications for space extensive enterprise developments. Each of these criteria are considered in turn below.

- The appropriateness of the site for the proposed use having regard to EDE7 Objective 1.

7.3.6. This objective seeks to ensure that space extensive enterprise is located on lands outside the M50. The proposed development complies with this requirement. A data centre development has already been permitted on the appeal site. As such, the principle of the development has already been established at this location.

- Strong energy efficiency measures to reduce their carbon footprint in support of national targets towards a net zero carbon economy, including renewable energy generation.
- 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 PPA in Ireland.

7.3.7. In my opinion, the development's compliance with these criteria is the key issue for consideration in this case. The Government's Statement on the Role of Data Centres in Ireland (2022) confirms that such developments are considered core digital infrastructure which play a vital role in the Irish economy and society. The Statement also confirms that 'islanded' data centres which are not connected to the grid and are mainly powered by on-site fossil fuel generation, are not in line with national policy. Having regard to the foregoing, I consider that the operation of the OSPG on a long-term basis in the absence of a grid connection would be inappropriate and contrary to national climate obligations. In the event the Board considered granting

permission for the proposed development, I consider that the long-term operation of the OSPG should not be permitted. This matter could be addressed by condition.

7.3.8. The CRU's 2021 Direction to System Operators was issued to balance the needs of the electricity system against the demand for new data centre connections. In considering the medium-term options for the OSPG, I note that the CRU identified onsite power generation as a mitigation measure to maintain security of supply while connecting new load to the system. The CRU acknowledges that the installation of dispatchable onsite generation for data centres that uses fossil fuel as the primary fuel source is a concern in terms of meeting Ireland's CAP targets. However, it is further acknowledged that, other than imposing a moratorium on data centre demand connections (which is considered inappropriate), there are no other viable short-term options that will continue to facilitate such connections while mitigating threats to security of supply. The CRU expects that natural gas will be used as the fuel source in such instances, which is considered a transitional fuel in meeting Ireland's CAP targets. The CRU also expects that fossil-fuel powered dispatchable on-site generation that is installed by data centre operators will be futureproofed and capable of running on alternative fuel sources. Having regard to the foregoing, I consider that the operation of the OSPG on a medium-term basis could be considered.

7.3.9. In reaching this conclusion, I note that the data centre can host many tenants seeking to collocate their IT equipment in individual secure cages. I also accept that the site size does not facilitate onsite renewable energy generation or the storage of sufficient volumes of alternative fuels to power the data centre. The applicant has sought to integrate renewable energy measures into the development where possible. The OSPG has also been designed to accommodate alternative biofuels, and as such, is future proofed to align with the evolution of these fuels. The climate impacts of the proposed development have been assessed in Chapter 18 of the EIAR and are considered further in Section 7.25 of this report below.

7.3.10. Where onsite power demand cannot be met from renewable energy sources, EDE7 Objective 2 allows applicants to provide evidence of engagement with PPA in Ireland. The applicant has committed to entering into an agreement with a renewable energy plant to offset its energy use before the data centre starts operating and has set out progress in relation to this matter in Appendix A of the appeal submission

(correspondence from Schneider Electric refers). The applicant has suggested the wording of a condition to address this matter if considered appropriate by the Board (page 28 of appeal submission refers). In my opinion, the wording of this condition, which requires that the renewable energy projects shall not be supported by government, consumer or other public subsidies, shall be located in Ireland and shall relate to energy that is not being generated at the date of grant of permission, would be appropriate if the Board decided to grant permission for the proposed development.

7.3.11. Given the indicative grid connection timeline which has been identified, I consider the operation of the OSPG should be restricted to a maximum of 8 years, following which it should be decommissioned and this part of the site restored, unless a subsequent permission to extend its duration has been obtained. In my opinion, this matter could be addressed by condition.

7.3.12. While the applicant has sought a 10-year duration to implement the permission, in my opinion the granting of permission on this basis would be inappropriate given that the parent permission (SD21A/0186) has a 5-year duration (date of Final Grant of Permission 5th May 2022). If the Board decides to grant permission for the proposed development, I recommend that its duration should be linked to that of the parent application. This matter can be addressed by condition.

- Sufficient capacity within the relevant water, wastewater and electricity network to accommodate the use proposed.

7.3.13. Uisce Éireann (Irish Water) has no objection to the proposed development prior to the applicant entering into water and wastewater connection agreements. The capacity of the electricity network to accommodate the proposed development has already been addressed above.

- Measures to support the just transition to a circular economy.

7.3.14. This issue is assessed in Chapter 13 (Waste Management) and Appendix 13 (Resource Waste Management Plan) of the EIAR and is summarised in Item No. 1 of the applicant's CFI response. This issue is discussed further in Section 7.20 of this report below. I am satisfied that the information which has been provided in relation to this matter is sufficient.

- Measures to facilitate district heating or heat networks where excess heat is produced.

7.3.15. This issue is addressed in Item No. 1 of the applicant's CFI response. It notes that the Dublin South-West area, including Grange Castle and Profile Park, has been identified as having potential for district heating as per Fig. 118 of the Codema – Dublin Region Energy Masterplan. Grange Castle has an abundance of potential heat sources, including substantial heat from a number of data centres. There is further potential to develop district heating within the development area of Grange Castle West.

7.3.16. The proposed development includes a heat recovery building adjoining the south-western end of the OSPG compound. All infrastructure, including plant and ducting, is provided in the event a future district heating system is developed in the area. I am satisfied that the measures which have been taken by the applicant in relation to heat recovery are reasonable.

- A high-quality design approach to buildings which reduces the massing and visual impact.

7.3.17. This item was addressed in the applicant's CFI response. The proposed development comprises modifications to a permitted data centre building. The applicant submits that the OSPG building has been sensitively designed having regard to the road frontage to the west of Profile Park and the potential visual impact from Nangor Road to the north. CGIs and verified views of the proposed development are included in Appendix 11 of the EIAR.

7.3.18. The overall height of the previously permitted development is proposed to be reduced from 4 to 3-storeys. The separation of building function within the data centre has been translated in the façade design through the use of different materials and colours. The colour palette is limited to dark and light grey complimented by small red accents, which helps to avoid the building looking monotonous.

7.3.19. The data centre is clad with horizontally fixed, composite flat metal panels with mineral wool core, powder coated to a dark grey colour. The uniform appearance of the cladding is decorated using metal fins, installed at 2.5 m intervals and 150mm

depth. The colour of the fins matches the cladding colour, adding texture to the large surfaces of the wall cladding.

7.3.20. The previously proposed hot air plenums on the northern façade of the data centre building are proposed to be omitted and replaced with screens to fully conceal the generator flues. The screens are finished with light grey horizontally fixed cladding and further enhanced with stainless steel wire mesh vertical panels. The treatment of the flue screens assists in breaking up the massing of the front façade. The external stairs on the southern façade are clad with stainless steel woven mesh cladding. Their steel support structures and stringers will be painted red to add interest.

7.3.21. The office block façades at the western end of the data centre building are differentiated by feature curtain walling. The inclusion of glazing mullion feature fins reflects the fins used on the data centre elevations. Solid sections of the front of house façades are clad with fibre-cement cladding panels in a mid-grey colour. Curtain wall framing will be in selected grey colour to match the cladding. The building entrance is the focal point of the office block façades and has been accentuated by a metal clad canopy. The single storey loading dock structure protruding from the building to the east will be finished in the same type of cladding as the office block.

7.3.22. The generators yard enclosure to the north of the building will be constructed of composite metal panels reaching up to a max. of 6.15 m above ground level to screen the highest elements in the yard. The section of the enclosure along the office block will be at a height of 3.5 m in order not to detract from the feature curtain wall element. The OSPG compound will have the same construction and detail.

7.3.23. The chillers' yard to the south of the building will be enclosed with acoustic panels in light grey colour to an overall height of 3.5 m above ground level. The design of ancillary structures such as the pump house, substation and waste store will be in keeping with the main data centre building through the use of flat composite panels in a dark grey colour.

7.3.24. It is submitted that the combination of screening through natural planting and physical boundary treatments, combined with the sympathetic design of the OSPG building mitigate against any negative impact in terms of massing or visual impact when viewing from within Profile Park or the public road.

7.3.25. In my opinion, the photomontages included in Appendix 11.1 of the EIAR confirm that the visual impact of the proposed development will largely reflect that of the permitted data centre in views of the site from the Nangor Road. The impact from these views will be slightly reduced on foot of the design amendments to the elevational treatments, in particular, the omission of the hot air plenums from the northern façade (view nos. 2, 3 and 7: permitted and proposed refer). While the data centre is inherently a bulky structure, I consider that the design of the building reflects that of the existing developments within Kilcabery Park on the northern side of the Nangor Road and similar boxy industrial units which are currently under construction elsewhere within Profile Park. Having regard to the nature and scale of the proposed development, I am satisfied that due consideration has been given to the building design to reduce its massing and visual impact.

- A comprehensive understanding of employment once operational.

7.3.26. This issue is considered in Chapter 4 of the EIAR which is discussed further in Section 7.19 of this report below. In summary, the Overall Project will require 14 no. full-time employees and 4-6 contractors. The OSPG will be operated/maintained by 1 no. plant manager with 2 no. specialists on call during nighttime periods. I am satisfied that the information provided by the applicant in relation to this matter is adequate.

- A comprehensive understanding of levels of traffic to and from the site at construction and operation stage.

7.3.27. This issue is considered in Chapter 12 of the EIAR. The effects of the proposed development during the construction phase would be slight negative, not significant and temporary for pedestrian amenity, driver delay and accidents and safety. The effects during the operational phase would be slight negative, not significant and permanent. The predicted effects of the replacement of large equipment and emergency maintenance of equipment on site during the operational phase would be slight negative, not significant and temporary. Standard mitigation measures are proposed to address the predicted effects.

7.3.28. In terms of residual effects, the number of construction vehicle movements will be low compared to the wider road network. During the operational phase the development will result in a minor uplift in congestion and delay locally, with no

significant effects on the wider road network. I am satisfied that traffic levels to and from the site during the construction and operational phases of the proposed development have been comprehensively addressed.

- Provide evidence of sign up to the Climate Neutral Data Centre Pact.

7.3.29. This evidence was provided in the applicant's response to the Planning Authority's request for Clarification of Further Information.

7.4. Environmental Impact Assessment

7.5. Introduction & Statutory Provisions

7.5.1. The proposed development comprises modifications to a permitted data centre development located on "EE (Enterprise and Employment) zoned land with a stated site area of c. 2.65 ha within the 'Profile Park' Business Park, Nangor Road, Dublin 22. The proposed development does not fall within the activities listed in Schedule 5, Part 1 of the Planning and Development Regulations, 2001 (as amended). As such, mandatory EIA is not required.

7.5.2. The applicant's EIA screening document identifies the following classes of development which are relevant in this case as set out in Schedule 5, Part 2 of the Regulations:

Energy Industry

- 3 (a) – Industrial installations for the production of electricity, steam and hot water not included in Part 1 of this Schedule with a heat output of 300 megawatts or more.

7.5.3. The applicant submits that the output of this facility will be 27.48 megawatts.

- 3 (c) – Installations for surface storage of natural gas, where the storage capacity would exceed 200 tonnes.

7.5.4. The applicant submits that there will be no storage of gas on-site and this threshold will not be reached.

- 3 (e) – Installations for the surface storage of fossil fuels, where the storage capacity would exceed 100,000 tonnes.

7.5.5. The applicant submits that the total amount of fuel stored on site is a max. of 112.3 tonnes, which is significantly below the mandatory EIA threshold.

Infrastructure Projects

- 10 (a) – Industrial estate development projects, where the area would exceed 15 hectares.

7.5.6. The applicant submits that the site area is significantly below this threshold and notes that an EIS was submitted with the parent application for Profile Park (Planning Authority Reg. Ref. SD06A/0568).

7.5.7. The applicant undertook a screening exercise for sub-threshold EIAR, which concluded that the proposed development does not meet the criteria where such an assessment would be required. Having regard to the number of similar existing and permitted data centres in the vicinity, South Dublin County Council considered that the proposal was likely to result in significant effects on the environment. The applicant was requested to undertake an EIA of the proposed development under Item No. 3 of the Clarification of Further Information request dated 17th November 2022, which was submitted to the Planning Authority on 14th June 2023.

7.6. EIA Structure

7.6.1. This section of the report comprises the environmental impact assessment 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 Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and
>
> (b) includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

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

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

7.7. Issues Raised in Respect of EIA

7.7.1. Issues raised in respect of EIA by parties to the appeal are:

- The EPA notes that emissions to air from the onsite generators may potentially impact air quality, particularly from nitrogen oxides.
- Third parties submit that the proposed development is premature pending a connection to the national grid; does not comply with national and local climate obligations / plans; will result in increased carbon emissions; has no alternative energy supply; and will increase water and electricity demand. It is also submitted that there is a disproportionate number of data centres in the South Dublin area.

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

7.8.1. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.

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).
A description of the proposed development and the site context is provided in Chapter 2, Volume 2 of the EIAR. The EIAR describes the following: (1) the "**Permitted Development**" for which permission was granted comprising a 3-storey, part 4-storey data centre development known as DB8 (Planning Authority Reg. Ref. SD21A/0186). (2) the **"Proposed Development"** for which permission is sought under the current application comprising modifications to the permitted data centre development, including an On-Site Power Generation (OSPG) using gas supplied via the Gas Networks Ireland (GNI) grid. (3) the **"Overall Project"** which includes the permitted data centre, and the amendments proposed under this appeal case. Medium and long term options for the operation of the proposed OSPG are also identified including: (1) Decommission the OSPG plant in the next 6-8 years when a grid connection becomes available, (2) Retain the OSPG plant after 6-8 years and operate it on the basis of the flex agreement with ESBN to support the security of the new decarbonised national grid, (3) long-term retention of OSPG with no grid connection. Information is also provided in relation to associated infrastructure, construction/operational staff, development outputs, the design and development rationale, the characteristics of the construction and operational phases, decommissioning and sustainability measures. I am satisfied that sufficient information has been provided in relation to this matter.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).
A description of the likely significant effects (direct, indirect and cumulative) of the development on the environment in provided in the technical chapters and associated documentation of the EIAR. The technical chapters reflect the environmental parameters set out in Article 94. I am satisfied that the information provided is comprehensive.
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).
The proposed development includes designed in mitigation measures and measures to address potential adverse effects identified in technical studies. These, and arrangements for monitoring (if required), are identified in each of the technical chapters and are summarised in Chapter 21. Mitigation measures are largely capable of offsetting significant adverse effects identified in the EIAR.

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).
A description of the alternatives considered by the applicant is set out in Chapter 3, Vol. 2 of the EIAR. The alternatives considered include: • Operational Scenarios • Locations • Design and Layouts for the Overall Project • Technologies • Size and Scale • Construction and Decommissioning • Do-nothing I am satisfied that the applicant has undertaken a study of reasonable alternatives in assessing the proposed development and has outlined the main reasons for opting for the current proposal before the Board 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.
Details of the existing baseline environment are provided in each technical chapter of the EIAR.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.
Forecasting methods and evidence used to identify and assess the significant effects on the environment for each environmental factor are described in each chapter. Any issues or significant difficulties that were encountered during the assessment of individual factors are noted within the relevant chapters.
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 considered in Section 7.6 of the EIAR. Mitigation against the risk of major accidents and/or disasters is embedded through the design and in accordance with planning and legislative requirements. There are no likely cumulative effects under the Seveso Directive.
Article 94 (c) A summary of the information in non-technical language.
This information has been submitted as a standalone document (EIAR – Volume 1: Non-Technical Summary). I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that can be easily understood by the public.

Article 94 (d) Sources used for the description and the assessments used in the report
The sources used for the description and the assessment of the potential environmental impact are set out in each technical chapter of the EIAR.
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 preparation of the report is provided in Section 1.4.1 of Volume 2 of the EIAR. A description of the competencies and experience of the contributors is also provided.

7.9. Consultations

7.9.1. 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. 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

7.9.2. Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer is sufficient to comply with article 94 of the Planning and Development Regulations, 2001. Matters of detail are considered in my assessment of likely significant effects below.

7.10. Assessment of Likely Significant Effects

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

7.10.2. 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 is therefore structured around the following headings:

- Issues Raised
- Examination, Analysis and Evaluation
- Assessment / Conclusion

7.11. Population and Human Health

7.11.1. Issues Raised

No issues have been raised by parties to the appeal in respect of population and human health.

7.11.2. Examination, Analysis and Evaluation

Context

Chapter 4 of the EIAR deals with population and human health. It assesses the likely effects of the development having regard to population and demographics, socioeconomics, population health, natural resources, tourism and social infrastructure in the identified study area of the site. Effects on humans arising from other issues such as natural hazards, soils, geology and hydrogeology, water, air quality, noise, vibration, traffic and landscape are considered in the relevant chapters of the EIAR. Cumulative effects are considered in Chapter 19, with the list of cumulative developments considered provided in Appendix 19.1.

The assessment is undertaken in accordance with government and industry best practice guidelines. The assessment methodology primarily comprises a desk top examination of published data sources. No limitations are identified or evident in the assessment.

Baseline

The overall project is located in South County Dublin, approx. 3km west of Clondalkin town centre, within the electoral divisions of Clondalkin Village and Clondalkin Dunawley. This study area was chosen as it relates to the surrounding environment of the site and captures the environmental sensitivity of the geographical areas likely to be affected by the Overall Project. Using the precautionary principle, it is assumed that the receiving population is of a consistent high sensitivity to effectively assess the effect of the proposed development on human health and population.

The subject site is greenfield in nature and forms part of Profile Park Business Park. The surrounding land uses comprise large industrial, manufacturing and data storage buildings similar to the permitted and proposed development. There is a residential development located adjacent to the Circle K filling station c. 70 m from the site on the northern side of the Nangor Road. Two detached units to the west of the site are vacant/derelict or planned for demolition. There are some residential areas to the east at Oldcastle Drive, including traveller accommodation c. 600m distant.

According to 2016 CSO data, the population of Clondalkin Village and Clondalkin Dunawley was 9,152 persons and 11,323 persons respectively. This represents a 7.8% and 4.1% increase from the 2011 CSO population figures for these areas. The age profile of the study area is generally weighted towards an older population group and is dominated by people in the working age group (30-44 years of age). The population density of the area is low compared to the County overall.

There is a higher proportion of employment in commerce and trade and in professional services amongst employees within the study area. Unemployment rates have decreased between 2011-2016. The study area is categorised as “marginally below average” with respect to the deprivation index score. A total of 45% of persons within the study area were recorded as having third level educational qualifications in 2016. The median price of residential properties sold across Dublin 22 is €345,000.

The majority of the population in the study area have good general health according to the CSO census data, with life expectancy for males and females in the County

increasing consistently between 2006 – 2016 (80.1 and 83.4 years respectively in 2016). There is an Upper Tier Seveso Site located approx. 3.26 km south of the subject site in Greenouge Industrial Estate.

The proposed development does not detract from natural resources or result in loss of available farmland. Apart from the adjoining Grange Castle Golf Club, no tourism assets are present within the immediate vicinity of the site.

In terms of the baseline social infrastructure, a total of 21 no. school facilities are identified within 4km of the site. Two Garda stations and 1 no. fire station are located within 4 km of the site. Tallaght Hospital is the nearest hospital.

7.11.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR, are summarised in Table 7.1 below.

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• Under a do-nothing scenario, the existing patterns and trends in population and human health are likely to continue.
Construction	• **Population:** Short term positive effect on local population. • **Human Health:** Imperceptibly negative impact to air quality in the short term. • **Health and Safety:** Construction activities will be carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations, 2013 (as amended). • **Property Values:** Construction works will have no impact on local property values. Neutral, not significant and long-term. • **Employment:** Approx. 100-120 workers will be required on site, increasing local employment levels and spending by construction workers. • **Amenity and Tourism:** The development will change the site from a greenfield site to an industrial infrastructure use with associated planting.
Operation	• **Population:** No permanent change to local population trends. • **Human Health:** The proposed development will remain in compliance with ambient air quality standards. • **Employment:** 14 full-time staff and 4-6 contractors for the overall project. OSPG will be operated/maintained by 1 no. plant manager, with 2 specialists on call at night. Positive, moderate and long-term.

	• **Health and Safety:** Negligible risk of landslides, no history of seismic activity and no risk of volcanic activity. Neutral, moderate and long-term.
Decommissioning	• Considered in other technical chapters of the EIAR.
Monitoring	• Measures to avoid negative effects are largely integrated into the overall design of the overall project and proposed development. Monitoring for compliance with health and safety requirements will be undertaken by the project supervisor for the construction process.
Cumulative	• The Overall Project, cumulative developments identified in Appendix 19.1 and existing developments within the vicinity of the site are considered to have a negligible effect on the local population. • The predicted cumulative effects on Air Quality and Noise are deemed short-term and not significant during the construction phase. • Cumulative effects of the Overall Project and developments likely to overlap during the operational phase is permanent, slight, not-significant and neutral. • Should decommissioning of the OSPG be required, the cumulative effects would be short-term, slight, not significant and neutral.

Table 7.1: Summary of Potential Effects: Population and Human Health

7.11.4. Mitigation

Any perceived nuisance effects on the immediate local population will be short-term and temporary in nature due to the 16–18-month duration of the construction process. No remedial or mitigation measures are required beyond normal landscaping, noise and construction mitigation outlined in the EIAR and a CEMP, which will be prepared in advance of construction works.

The Overall Project and the Proposed Development will be beneficial with respect to employment and no remedial or reductive measures are considered necessary.

Mitigation measures in relation to air quality, climate, noise and vibration during the construction and operational phases are considered in the relevant technical chapters of the EIAR and are summarised in Chapter 21.

7.11.5. **Residual Effects**

There will be a temporary, imperceptible, positive effect on local businesses with the presence of construction workers during the construction phase. The health effects associated with the employment generation during the construction phase (and decommissioning if required) would be temporary, not significant and slight positive in nature.

The residual impacts on air quality from the construction of the proposed development will be short-term and imperceptibly negative and for the operational phase will be long-term, negative and slight. The residual effect is not significant.

The overall project would contribute to the planned urbanisation of an area where an expansion of business and industrial uses is envisioned. The effects on amenity and tourism will be neutral, imperceptible and long-term.

There will be no significant residual impacts on landscape character or visual amenity. The impact on the landscape is identified as slight and moderate in magnitude, negative and neutral in quality and long term/permanent in duration.

Residual effects in relation to air quality, noise, visual effects and traffic are addressed in more detail in the relevant technical chapters of the EIAR.

7.11.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 4 of the EIAR and all associated documentation and submissions on file. The proposed development will have a short-term positive effect on local employment and spending levels during the construction phase and a moderate, positive and long-term impact on employment during the operational phase. Construction works will be carried out in accordance with relevant health and safety standards and procedures.

There will be an imperceptibly negative impact on air quality in the short-term and the proposed development will remain in compliance with relevant air quality standards during the operational phase. The predicted cumulative effects on air quality and noise are deemed short-term and not significant during the construction phase. Cumulative effects during the operational phase will be permanent, slight, not significant and neutral.

Having regard to the foregoing, and to the site location and character of the adjoining land uses, I am satisfied that the potential for significant adverse effects on human health during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on population and human health.

7.12. Biodiversity

7.12.1. Issues Raised

No issues have been raised by parties to the appeal in respect of biodiversity.

7.12.2. Examination, Analysis and Evaluation

Context

Chapter 5 of the EIAR sets out a description and assessment of the potential, likely and significant effects of the proposed development on ecology and biodiversity. The site boundary for the purposes of this assessment comprises the red line boundary for the Overall Project. The assessment was undertaken having regard to the requirements for the protection of habitats, species and biodiversity, as set out in international, European, national legislation and national and local policy and government and industry guidelines for EIA and EcIA.

The assessment included a desk study and a field study to establish the flora, fauna and habitat baseline of the site. The survey methods employed are identified. No survey limitations were encountered or are evident in the assessment.

The chapter should be read in conjunction with the NIS submitted under separate cover with the planning application. Associated appendices include a Bat Survey Report (Appendix 5.1) and an Updated External Lighting Layout (Appendix 5.2).

Baseline

The site is greenfield in nature, comprising disturbed ground which forms part of the Profile Park Business Park. The site is of low ecological value. There are 7 no. European sites within 15 km of the subject site. Further consideration of these sites

is provided in the Stage 2 AA which accompanies the application. There are 2 no. pHNA within 5 km of the site. A total of 18 no. legally protected or notable species have been recorded within 2km of the subject site over the last 10 years.

The site is primarily comprised of a construction compound, disturbed ground and spoil heaps, which have overgrown with vegetation. A drainage ditch and hedgerow border the southern and eastern site boundaries. The drainage ditch discharges into the Baldonnelll Stream in the south-western corner of the site. The ditch along the southern site boundary was wet at the time of the inspection. A connection from Grange Castle Golf Club appears to discharge into this ditch. The ditch along the eastern boundary was dry at the time of the inspection. Surface water ponds were noted throughout the site.

No plant species recorded under a Flora Protection Order were recorded onsite. No amphibians were recorded in the onsite surface water ponds, which are considered temporary in nature. A common frog was observed in the drainage ditch bordering the site in 2021. In March 2022, frogspawn was noted in the stagnant drainage ditch at the southern site boundary.

There was no evidence of badger activity within the site, although it is possible they may commute through the site. The bat surveys only identified commuting/foraging activity, with the majority recorded along the existing hedgerow / treeline within the golf course to the east of the site. The site is not considered to be of importance for any notable or protected bird species. The hedgerow / treeline on site has the potential to provide suitable nesting habitat for a range of common bird species.

No evidence of otter was identified in the drainage ditch and no suitable habitat for otter was found on site or within the surrounding area. There is a potential indirect hydrological link between the site and watercourses further down the catchment which potentially support otter. No invasive species were noted within the study area.

No evidence of hedgehogs and pygmy shrews was identified on site. The hedgerow / tree line bounding the site has the potential to support foraging and commuting hedgehogs and pygmy shrews. It is likely that foxes forage and commute within the site. No fox dens were identified. Aquatic surveys undertaken on the Baldonnelll Stream for a nearby proposed development did not identify any notable or protected species within the stream.

7.12.3. **Potential Effects**

Likely significant effects of the development, as identified in the EIAR, are summarised in Table 7.2 below.

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• It is likely that the site will be encroached by pioneer species and will transition to scrub, which will provide some additional habitat for species at a local level – not of considerable conservation value.
Construction	• **Natura 2000 sites:** Scoped in for further consideration (NIS provided). • **Nationally Designated Sites**: There is a hydrological connection between the site and the Grand Canal pNHA. Without appropriate water quality mitigation measures, there is potential for adverse impacts to this pNHA. • **Hedgerows / Treelines**: Construction works could impact on this habitat type, which will require maintenance and protection. • **Drainage Ditches:** Construction works (sediments / pollutants run-off) could impact on the onsite drainage ditches which potentially support local biodiversity and are connected to the Baldonnelll Stream and the wider river network. • **Amphibians:** There are opportunities to enhance the site for amphibians by creating an attenuation pond. The placement of hibernacula and habitat piles around the margins of the pond would create refuges for amphibians. • **Badgers:** Construction works could disturb badgers commuting through the site. • **Bats:** Site lighting could impact on bats commuting and foraging along the site boundaries. The creation of a wildflower and wetland habitat and the strengthening of existing hedgerows/treelines will provide suitable foraging and commuting areas for a range of species including bats by supporting increased insect populations. • **Otter:** There is potential for otter using the surrounding river network to be impacted during the construction phase without appropriate water mitigation measures. • **Invasive species:** There is potential for invasive species to be introduced to the site during construction.
Operation	• **Otter:** There is potential for otter using the surrounding river network to be impacted during the operational phase without appropriate water mitigation measures. • Proposed landscape planting and biodiversity enhancement measures will provide additional habitats and opportunities for species already existing within the area.

Decommissioning	• An updated ecological appraisal of the site will need to be undertaken at the time of decommissioning to ensure no notable or protected species are using the site and adjoining areas. Given the nature of the OSPG compound, it is not considered likely that this facility will support significant biodiversity receptors.
Monitoring	• Measures to avoid negative effects are largely integrated into the overall design of the overall project and proposed development. Monitoring for compliance with health and safety requirements will be undertaken by the project supervisor for the construction process.
Cumulative	• No cumulative effects on biodiversity will occur as a result of the Overall Project. • The cumulative effect on ecology arising from the Overall Project in-combination with other developments is imperceptible.

Table 7.2: Summary of Potential Effects: Biodiversity

7.12.4. Mitigation

Mitigation and remedial measures with respect to biodiversity are set out in Section 5.5 of the EIAR. The key measures can be summarised as follows:

Construction Phase

- All works will comply with all relevant legislation and best practice guidance to reduce environmental impacts.
- All works to be undertaken in accordance with the "Requirements for the Protection of Fisheries Habitat during Construction and Development".
- Updated CEMP will be agreed with Planning Authority if required.
- An Ecological Clerk of Works (ECoW) will be appointed for the construction works and will be available should protected or notable species be encountered.
- All boundary treelines/hedgerows will be retained and protected (Arboricultural Impact Plan and Arboricultural Inventory and Impact Assessment – Appendix 11.4 and 11.5).
- The retained trees will be assessed by a suitably qualified arborist following completion of construction works and the findings will be submitted to the Planning Authority.

- Additional landscape planting along the southern and eastern boundaries will provide cover and potential foraging opportunities for wildlife.
- Vegetation clearance and ground stripping adjacent to the drainage ditch will be supervised by the ECoW to ensure no adverse effects occur to amphibians.
- Hibernacula and habitat piles will be installed in the landscaped area around the drainage ditch network and along the attenuation pond to support any potential amphibians in the area.
- Terrestrial Mammals: (i) project ECoW will be consulted if works required outside daylight hours; (ii) where deep excavations required, appropriate measures to protect mammals from ingress will be installed as required; (iii) if unidentified burrows are identified, works will cease in that area and the ECoW will be consulted for advice; (iv) noise mitigation measures (detailed in Chapter 8) will be implemented to minimise impacts arising from the proposed works.
- Mitigation measures (detailed in Chapter 7: Water) will be implemented to ensure works do not impact on drainage ditches or further downstream in the Griffeen or Liffey Rivers.
- Invasive species: all vehicles, machinery and equipment will be washed and visually inspected prior to entry/use on site; imported materials sourced from a reputable supplier.

Operational Phase

- Nocturnal Species: lighting plan has been designed to mitigate potential impacts; following installation, ECoW will inspect lighting patterns and lux levels along the site boundaries.
- Water Quality: drainage system and fuel storage onsite designed to avoid adverse effects on water quality within the onsite drainage ditches and further downstream in the Griffeen and Liffey Rivers (full measures described in Chapter 7: Water).

- Ecological Enhancement Measures: additional planting along the hedgerow/treeline bordering the site; creation of surface water attenuation pond will foster a variety of wildlife and marsh vegetation; introduction of bee-friendly wildflower planting mix; artificial hibernacula / habitat piles will be installed around the attenuation pond to provide shelter and hibernation sites for amphibians and act as a host for other species of inverts and small mammals; the addition of green roofs and trellises on site.

7.12.5. **Residual Effects**

Imperceptible residual effects will arise to all the identified receptors except in relation to site planting, which will result in a slight positive impact on foot of the introduction of additional trees and reinforcement planting on the site.

7.12.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 5 of the EIAR and all associated documentation and submissions on file. The site is of low ecological value and comprises disturbed ground within the Profile Park Business Park. However, in the absence of appropriate mitigation measures, there is potential for construction works to impact on the hedgerows/treelines and drainage ditches bordering the site and to disturb fauna species which may be foraging/commuting through the site. Otter species using the surrounding river network may be impacted during the operational phase in the absence of water mitigation measures.

The EIAR states there is a hydrological connection between the site and the Grand Canal pNHA. However, the applicant's NIS further clarifies that the Griffeen River (of which the Baldonnelll Stream is a tributary), crosses under the Grand Canal through a siphon system. As such, I am satisfied that there is no direct hydrological connection in this instance. Notwithstanding the foregoing, the applicant has identified mitigation measures with respect to surface water during the construction and operational phases of the proposed development.

A range of suitable mitigation measures has been identified to mitigate the potential effects as summarised above. The proposed development will not result in any significant impacts on ecological receptors identified onsite and in the surrounding area following the implementation of these measures. The proposed landscaping

and biodiversity enhancement measures will supplement the existing vegetation on site and provide additional habitats and opportunities for existing species in the area.

Having regard to the foregoing, including the low ecological value of the site and the character of the adjoining land uses, I am satisfied that the potential for significant adverse impacts on biodiversity during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on biodiversity.

7.13. Land, Soil, Geology & Hydrogeology

7.13.1. Issues Raised

No issues have been raised by parties to the appeal in respect of land, soil, geology and hydrogeology.

7.13.2. Examination, Analysis and Evaluation

Context

Chapter 6 of the EIAR contains an assessment of the proposed development on the land, soil, geology and hydrology of the subject site. The assessment is undertaken in accordance with government and industry best practice guidelines. The methodology includes a review of records from standard sources, the undertaking of a site inspection and the submission of a questionnaire to the landlord to gather information about current, past uses and conditions of the site. No limitations are identified or evident in the assessment.

The identification of geological characteristics and potential sources of contamination of the site and its environs has been undertaken with reference to assessments undertaken by the chapter author in 2021. These include Phase 1 Environmental Site Assessment provided in Appendix 6.1, Geo-Environmental Assessment in Appendix 6.2 and the 2006 EIS prepared for Profile Park (Chapter 6 and Appendix B – Soils, Geology and Hydrogeology including trial pit logs) which is included in Appendix 6.4 of the EIAR. It is noted that most of the information relates to historical features/records which are unlikely to have changed since 2021. It has been

assumed there will be no significant differences between existing and future baseline conditions given that no other significant sources of contamination have been introduced to the site since the 2021 assessments. In my opinion, this assessment approach is reasonable.

The study area for this assessment includes the subject site and any areas of contamination within 1km of the site boundary based on historical and current land mapping and records.

Baseline

The majority of the site (c. 60%) is vacant land dominated by stockpiles of construction and demolition materials and course infill. No evidence of asbestos containing materials was visible. Ground cover in peripheral areas comprises scrub type vegetation. A construction site compound is located in the west of the site comprising prefabricated cabins and converted storage containers. No strong, pungent or noxious odours were noted during the site survey. Pools of standing water were observed between material stockpiles in the east of the site and in compacted gravel hardstanding in the south. No pits, ponds or lagoons were noted.

GSI mapping data indicates that the site is underlain by superficial deposits of till derived from limestones. The underlying bedrock is described as dark limestone and shale of the Lucan formation. Ground investigations have identified topsoil up to 0.25 m thick localised in the southeast of the site. Hardstanding up to 0.95 m thick was encountered in the north centre and western areas of the site underlying which is made ground. Made ground was encountered to 1.60 m bgl (1.45 m thick) across the site with a sporadic distribution. Reworked made ground was encountered in the north-east of the site to 3 m bgl (1.55 m thick). Superficial deposits of glacial till were encountered across the whole site underlaying all made ground and topsoil deposits. The till was encountered to 4.35m bgl (3.90 m thick). No visual or olfactory evidence of potential gross contamination was observed in soils during the intrusive site investigations.

GSI mapping data classifies the bedrock underlying the site as a locally important aquifer which is moderately productive only in local zones. It is part of the Dublin WFD groundwater body, is not within a drinking water protection area and there are no proximate abstractions recorded. Previous ground investigations (2021)

encountered groundwater across the site at 0.5 m bgl and 2.9 m bgl. Resting groundwater levels of 0.37 m bgl and 2.46 m bgl were recorded. It is not clear how consistent groundwater levels are across the site and with depth due to the presence of shallow bedrock. No visual or olfactory evidence of potential gross contamination was observed in groundwater during the investigations.

The main watercourses in the vicinity of the site are: (1) Baldonnelll Stream – abuts the southwest corner of the site and flows northwest to join the Griffeen River, (2) the Griffeen River – 1km northwest of the site and joins the River Liffey 4 km north of the site, (3) River Liffey – 4 km north of site. The Grand Canal is located 1.4 km to the north. The Griffeen River intersects the canal to the north-west of the site on its path to the River Liffey. The fluvial flood risk at the site is considered very low.

The site is not located in an area of known coal mining. The site lies in an area where between 5-10% of homes are above the EPA reference level for radon. Radon protection measures may be necessary in the construction of new buildings at the site.

Construction materials stockpiled on the site may contain contaminants of concern. Potential storage of fuels and materials at the petrol filling station and warehouses and depots on the northern side of the R134 road could represent a potential off-site source of contamination. Intrusive investigations (soil and groundwater) and follow-on monitoring were undertaken on the site in 2021 and did not encounter visual and/or olfactory evidence of contamination.

The assessment of risk to human health has been undertaken using Generic Assessment Criteria (GAC). None of the contaminants reported in the soil samples exceed the relevant GAC and are not considered likely to represent a risk to human health. Based on the soil and groundwater chemical data, none of the site-specific contaminants of concern were recorded at concentrations in excess of their respective GAC. Gas monitoring undertaken at the site in 2021 indicated elevated concentrations of carbon dioxide and methane, with negligible flow rates localised to the south of the site. Concentrations of ground gases were very low-negligible across most of the site. Based on these results, and in the absence of any appreciable ground gas source, it is considered appropriate to apply a very low risk condition to the site.

Localised concentrations of cadmium, copper, naphthalene and total TPH have been identified as exceeding the relevant GAC in samples collected during the first groundwater monitoring. Subsequent sampling at the same locations found concentrations either below GAC or below laboratory detection limits. Initial exceedances are likely the result of ground disturbance from drilling and installation of monitoring wells. The initial concentrations are not considered to represent a potential risk to controlled waters.

7.13.3. **Potential Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The site will remain in its current condition under a do-nothing scenario.
Construction	• **Construction Workers and Adjacent Land Users**: There is a low risk from soil/groundwater contamination sources. Unforeseen contamination exposure is greatest for this group from dust, soils and shallow groundwater encountered during excavation works. • **Controlled Water:** Activities associated with enabling and construction works may affect the quality of groundwater and surface waters – introduction of new potentially polluting activities, sediment laden runoff during earthworks, new contaminant migration pathways during excavations, dewatering of excavations (if required), removal of hardstanding, leaching and/or contaminated runoff from material stockpiles, earthworks temporarily increasing the leaching of soluble contaminants within Made Ground.
Operation	• **Site Users and Adjacent Land Users:** The contaminant concentrations within the site soils tested are below stringent assessment criteria protective of human health receptors. The quality of groundwater below the site is such that it is considered unlikely to pose a potential vapour risk to the site users. The overall risk - negligible long-term permanent effect, which is classed as not significant. • **Controlled Waters:** Potential for contamination of ground and surface waters from uncontrolled spillages and leaks of fuels, oils and chemicals. • **Buildings, Utilities and Services:** Potential to be affected by previously unidentified contaminated soil. Buried concrete structures may be susceptible to chemical attack from contaminates such as sulphates. Hydrocarbons are known to permeate and corrode plastic water supply pipes. • **Risk of Major Accidents:** The risk of seismic activity or landslides initiating a major accident at the proposed development is negligible and not significant.

Decommissioning	• The medium-term scenario where the OSPG plant is decommissioned in the next 6-8 years would result in no adverse impact which is not significant. Potential risks associated with decommissioning works can be effectively managed by application of good enabling works and implementation of a management plan. • The medium-term scenario where the OSPG is retained with a flex agreement, would result in no adverse effect which is not significant. Regular maintenance and minor upgrade works will maintain the functional operation of the development. • The long-term scenario where the OSPG is retained would result in no adverse effect which is not significant. Regular maintenance and minor upgrade works will maintain the functional operation of the development.
Monitoring	• Measures to avoid negative effects are largely integrated into the overall design of the overall project and proposed development. Monitoring for compliance with health and safety requirements will be undertaken by the project supervisor for the construction process.
Cumulative	• The operation of the Proposed Development and Overall Project is concluded to have a long-term, imperceptible significance with a neutral impact on soil and water quality. • No land contamination has been identified on the site, which indicates that no contamination from off-site sources which could cause a detrimental cumulative effect is currently migrating on to the site.

Table 7.3: Summary of Potential Effects: Land, Soil, Geology & Hydrogeology

7.13.4. **Mitigation**

The following mitigation measures are proposed:

- Adoption of safe working practices, high standards of personal hygiene, the use of appropriate PPE and measures to mitigate fugitive dust emissions during earthworks will result in a negligible, short-term temporary effect on construction workers and residents which is not significant.
- The successful implementation of the CEMP would mitigate potential risks to groundwater and / or surface watercourses from contaminated runoff. Such effects are considered negligible short-term and temporary in nature, which are not significant.
- The implementation of an agreed remediation strategy, where required, for previously unidentified contamination within the soils, will result in the overall

betterment of potential risks to controlled waters. This is considered to represent a permanent minor beneficial effect, which is not significant.

- The risk of contamination of ground and surface waters from uncontrolled spillages and leaks of fuels, oils, chemicals, or spillages from vehicles will be mitigated by using storage facilities with secondary containment and the incorporation of well-maintained petrol/oil interceptors into the surface water drainage system. The likely effects are considered minor adverse long-term and permanent in nature and not significant.
- Any previously unidentified contaminated soils which are encountered during excavations will be removed and address by hot-spot protocol. An appropriate specification should be produced for buried concrete and/or potable water supply pipes to mitigate against aggressive ground conditions. The use of 'clean' service corridors is also recommended. Based on the foregoing, the effects to buildings, utilities and services during enabling and construction works are considered negligible, permanent and not significant.
- Regular maintenance of the OSPG and the undertaking of minor upgrade works will maintain the functional operation of the development over the medium to long term.
- Potential risks posed by spillages during the decommissioning of the OSPG plant will be managed by the implementation of embedded mitigation measures such as the use of storage containers with secondary containment and incorporation of well-maintained petrol/oil interceptors into the surface water drainage system.
- Potential risks of decommissioning works can be effectively managed by application of good enabling works and implementation of a decommissioning management plan.

7.13.5. **Residual Effects**

No significant long-term adverse effects are likely to arise from the enabling works, the construction phase and the completion and occupation of the proposed development (summary provided in table 6.7). No additional mitigation or monitoring is required.

7.13.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 6 of the EIAR and all associated documentation and submissions on file. Most of the site is vacant land dominated by stockpiles of construction and demolition materials and course infill. No evidence of potential gross contamination was observed in soils or groundwater during intrusive site investigations. The bedrock underlying the site is classified as a locally important aquifer which is moderately productive only in local zones.

There is a low risk to construction workers and adjacent land users from soil/groundwater contamination sources during the construction phase. There is potential for contamination of ground and surface waters during the operational phase from uncontrolled spillages and leaks of fuels, oils and chemicals.

A range of standard mitigation measures are proposed to mitigate the potential effects to land, soil, geology and hydrogeology including safe working practices, the implementation of an approved CEMP and remediation strategy (if required), the use of appropriate storage facilities for fuels, oils and chemicals and regular maintenance of the OSPG. The operation of the proposed development and overall project is concluded to have a long-term, imperceptible significance with a neutral impact on soil and water quality. No land contamination which represents an unacceptable potential risk to human health and controlled water receptors has been identified at the site.

Having regard to the foregoing, I am satisfied that the potential for significant adverse effects on land, soil, geology and hydrogeology during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts on land, soil, geology and hydrogeology.

7.14. Water

7.14.1. Issues Raised

Third parties note that the proposed development will increase local water demand.

7.14.2. Examination, Analysis and Evaluation

Context

Chapter 7 of the EIAR assesses the potential impact of the proposed development on the surface water environment of the site. The assessment is undertaken in accordance with government and industry best practice guidelines. The attributes of each surface water body considered are hydrology, hydro-morphology and water quality. Potential construction phase impacts considered include construction runoff and watercourse disturbance due to utility diversions, road resurfacing and road realignments. Operational phase impacts considered include surface water impacts associated with changes in surface water runoff, increased hardstanding and watercourse disturbance. Associated appendices are Appendix 7.1 (Flood Risk Assessment) and Appendix 7.2 (Confirmation of Feasibility). No limitations are identified or evident in the assessment.

Baseline

There is an existing 160 mm diameter watermain along the western boundary of the site at Falcon Avenue. Two capped connections with sluice valves have been left off the watermain to facilitate the development of the subject site. There is also an existing 700 mm diameter watermain running parallel to the New Nangor Road adjacent to the northern site boundary. Uisce Éireann (Irish Water) has confirmed there is adequate capacity within the existing watermain network to supply the proposed development, which will be served by the watermain at Falcon Avenue.

A topographical site survey has identified a dry open ditch which forms the southern boundary of the site, which runs in a westerly direction and is then drained via a tributary into the Camac River. The open ditch network has been identified as having the capacity to accommodate the proposed surface water discharge from the subject site. The storm water management system has been designed in accordance with the GDSDS.

3 no. 150 mm/225 mm spur foul water connections are located adjacent to the western boundary of the site. These spur connections were left out to facilitate the development of the site and are joined into the reticulation network for Profile Park. This network connects into the Grange Castle Pumping Station (under control of SDCC), from which effluent is pumped and ultimately connected to the Ringsend WWTP. It is proposed to discharge foul water from the proposed development into the existing 225 mm diameter spur connection laid across Falcon Avenue, which is connected to the existing foul sewer network laid along the western edge of Falcon Avenue. Uisce Éireann (Irish Water) has confirmed there is adequate capacity in the foul water network to serve the proposed development.

7.14.3. Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• A do-nothing scenario is not considered. The site would remain in its current state under this scenario.
Construction	• There is potential for pollutants (suspended solids, oil, chemicals, cement, cleaning materials and paints) to enter controlled waters via watercourses, public sewers, ditches, drains, seepage into groundwater and through excavations and disturbance. • The potential effects with respect to major accidents or disasters is low.
Operation	• The sources of pollution that could potentially have an effect on surface or groundwater during the operational phase will be oil and fuel leaked from parked cars, service vehicles, etc.
Decommissioning	• No effects identified.
Monitoring	• None required.
Cumulative	• Construction Phase: The potential for cumulative impacts due to contaminated run-off impacts on local surface water quality is low as there is only a weak indirect hydrological connection through the local drainage network to the Baldonnell Stream. • During the operational phase, there is no potential for an increase in flooding. • There is sufficient capacity in the local water supply network to facilitate the development. • No likely cumulative effects under the Seveso Directive.

Table 7.4: Summary of Potential Effects: Water

7.14.4. **Mitigation**

The identified mitigation measures in relation to water quality can be summarised as follows:

- Sediment control measures will be put in place to prevent suspended solids in runoff from entering the ditch network bordering the site and ensure works are in line with IFI guidelines – silt traps, silt fence along the southern and eastern boundaries, existing vegetation retained where possible, working area clearly defined and ground disturbance minimised; runoff diverted away from stripped areas.
- Best practice guidelines will be followed based on Inland Fisheries Ireland and National Roads Authority guidance documents.
- Construction works will be undertaken in accordance with an approved CEMP.
- Weather conditions will be considered when planning construction activities to minimise risk of runoff from the site.
- Materials only transported to the works zone immediately prior to construction.
- Any chemical / oils to be stored on site will be placed in a bund on an area of hardstanding.
- All bunds will have the capacity of the largest tank volume plus a min. of 10% with additional capacity to hold 30 mm of rainfall.
- All construction equipment will be checked to ensure it is mechanically sound and to avoid leaks. Vehicle and equipment maintenance to be carried out in a designated area.
- Excavations will be left open for minimal periods to avoid acting as a conduit for surface water flows.
- Any pouring of concrete will be carried out in dry weather only. Washout of equipment used for concrete operations will be carried out offsite or within a designated washout area. Any spills will be cleaned up immediately.
- Steel tanks will be protected from corrosion.

- All drainage from bund areas must be directed to secure containment prior to suitable disposal.
- Fuels will be delivered onsite by a dedicated tanker or in a delivery bowser dedicated to that purpose. An appointed contractor will put in place a refuelling procedure which will be communicated to all relevant employees on site.
- Fuels, lubricants and hydraulic fluids will be carefully handled, properly secured and provided with spill containment in accordance with best practice.
- No surface water runoff will be discharged onto public roads, foul sewers or adjacent property.
- No discharges to the surface water drainage system at the site will be made until all drains are fully connected to the proposed and approved petrol interceptor.
- Adequate spill kits will be maintained on site and workers trained appropriately.
- Any sediments impacted by contamination will be excavated and stored in appropriate sealed containers for disposal offsite.

7.14.5. **Residual Effects**

None identified.

7.14.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 7 of the EIAR and all associated documentation and submissions on file. The site forms part of Profile Park Business Park and comprises zoned land which has been designated for enterprise and employment uses. Provision has been made in the local water supply and wastewater drainage networks to accommodate the proposed development and there is sufficient capacity to facilitate same. The open ditch network adjacent to the site has the capacity to accommodate the volumes of surface water runoff arising on foot of the proposed development.

The construction and operation of the proposed development has the potential to result in the discharge of pollutants to surface and ground waters. A range of standard mitigation measures has been identified to mitigate these potential effects. No significant cumulative effects are predicted.

Having regard to the foregoing, I am satisfied that the potential for significant adverse effects on water during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on water.

7.15. Noise and Vibration

7.15.1. Issues Raised

No issues have been raised by parties to the appeal in respect of noise and vibration.

7.15.2. Examination, Analysis and Evaluation

Context

Chapter 8 of the EIAR contains an assessment of the likely environmental noise and vibration effects on noise sensitive locations in the vicinity of the subject site on foot of the proposed development. Associated appendices include Appendix 8.1 (Glossary of Acoustic Terminology), Appendix 8.2 (Noise Modelling Details and Assumptions), Appendix 8.3 (Noise Model Parameters) and Appendix 8.4 (Indicative Construction Noise and Vibration Management Plan).

The methodology includes a review of relevant guidance to identify appropriate noise and vibration criteria for the construction, operational and decommissioning phases, the carrying out of noise monitoring to identify existing noise levels in the vicinity of the development, and the development of a detailed 3D noise model to consider the proposed development. The site will not generate any significant vibration off-site, and as such, criteria for same has not been set. No limitations are identified or evident in the assessment.

Baseline

Condition no. 14 of the permitted data centre development (SD21A/0186) sets limits for operational noise at noise sensitive locations, which shall not exceed the daytime background level by more than 10dB(A) and shall not exceed the background level

for evening and nighttime. The site is not located within a quiet area with reference to EPA NG4 guidance and is not located within an area of low background noise.

The nearest noise sensitive locations are identified in Table 8.13 and Figure 8.3 of the EIAR. These include 2 no. residential dwellings to the west of the site (1 no. derelict and 1 no. due to be demolished), residential dormer bungalows on the northern side of the Nangor Road, 2 no. golfing greens and 1 no. golfing tee associated with Grange Castle Golf Club, a commercial marketing suite within Profile Park to the south and commercial offices associated with Kilcarbery Business Park to the northwest of the site. The nearest residential noise sensitive location (NSL07) is located approx. 80 m north of the proposed buildings and the nearest commercial property (NSL08) is located 115m to the north.

Noise monitoring was undertaken at 4 no. locations as identified on Figure 8.4 of the EIAR including on the northern side of the Nangor Road, in the vicinity of the marketing suite, to the east of the site in the vicinity of the golf course and to the south in a location representative of noise levels of properties along Baldonnelll Road. Noise measurements were conducted during weekday day, evening and nighttime periods on 2nd and 3rd March 2021. The results are set out in Table 8.14 of the EIAR.

7.15.3. **Potential Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The do-nothing scenario is identified as the permitted data centre (i.e. without the OPSG) for the purposes of this assessment.
Construction	• The largest noise and vibration impact will occur during this phase due to the operation of various plant machinery and HGV movement to, from and around the site. • The predicated noise levels are within the adopted construction noise criteria of 65 $dB_{LAeq,12\ hr.}$ Construction noise effects are negative, slight to moderate and short-term. • Vibration levels at the nearest buildings are not expected to pose any significance in terms of cosmetic or structural damage. The range of the levels is typically below that which would cause any disturbance to occupants of nearby buildings. The effects are negative, not significant and short-term. • The effect of increased noise from construction traffic is neutral, imperceptible and short term. • Construction of the permitted data centre would result in similar activities to the proposed development at similar distances to

	NSL07. The impact remains negative, slight to moderate and short term. • Construction impacts of the proposed development on nearby noise sensitive properties due to noise emissions from the site will be negative, not significant and short term.
Operation	• The primary sources of outward noise are building services noise, emergency site operations and additional vehicular traffic on public roads. • Six scenarios are considered including: (i) permitted development - day-to-day operations (scenario A), (ii) permitted development - emergency operations with diesel generators (scenario B), (iii) permitted development - diesel generator testing (scenario C); (iv) overall project - day-to-day operations (scenario D), (v) overall project - emergency operations with diesel generators (scenario E); (vi) overall project – diesel generator testing (scenario F). • The predicted increase in existing noise levels at the nearest noise sensitive locations on foot of the overall project (scenario E) is not significant during the daytime and evening periods. A not significant to slight impact is noted during nighttime periods. • A comparison of the noise levels of the permitted development and overall project indicates that all predicted noise levels are within the criteria for each scenario. • Proprietary noise control measures have been employed to ensure noise emissions from building services plant do not exceed the adopted criterion at the façade of nearby noise sensitive locations. • Noise emissions will be broadband in nature and will not contain any tonal or impulsive elements. The resultant effect is negative, not significant and slight to long term. • The impact from increased traffic noise is negative, imperceptible to not significant and long term.
Decommissioning	• The noise and vibration effect associated with decommissioning works are comparable to those outlined in relation to the construction of the overall project. Decommissioning noise effects are negative, slight to moderate and short-term.
Monitoring	• Vibration from construction activities to off-site residences will be limited to values identified in table 8.7 through monitoring at site boundary or at noise sensitive locations.
Cumulative	• During the construction phase, there will be some impact on nearby noise sensitive properties due to noise emissions from site traffic and other activities. Management of noise and vibration in accordance with planning conditions will ensure the impact is slight, negative and short term. • Noise emissions from operation of the data centre and OSGP compound will not exceed the adopted criterion at the façade of any nearby sensitive locations. • There will be no significant effects from the operation of the permitted and proposed developments.

	• The cumulative noise impact of the overall project and other permitted developments would result in a +5dB noise impact (moderate) on the nearest noise-sensitive residential location. The cumulative impact (42dB $L_{Aeq,T)}$ is within typical EPA NG4 nighttime noise criterion of 45dB $L_{Aeq,T.}$

Table 7.5: Summary of Potential Effects: Noise and Vibration

7.15.4. Mitigation

Construction phase mitigation measures will include:

- Limiting hours during which site activities likely to create high levels of noise or vibration are permitted.
- Establishing communication channels between the contractor/developer, the Local Authority and residents.
- Appointing a site representative responsible for matters relating to noise and vibration.
- Monitoring of noise and/or vibration levels during critical periods and at sensitive locations.
- All site access roads to 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 around the site and around items such as generators or high duty compressors if necessary to comply with construction noise criteria.
- Situate noisy plant as far away as possible from sensitive properties and use of vibration isolated support structures where necessary.

Operational phase mitigation measures will include:

- Noise from external plant will be controlled by adhering to the sound power levels of plant items and the application of attenuators and barriers.

7.15.5. **Residual Effects**

There is a not significant impact at noise sensitive locations in terms of ambient noise levels subject to the appropriate management of on-site issues. There will be a negative, not significant and slight, long-term effect at the closest residences. The predicted change in background noise levels due to the proposed development is in the order of 1dB during daytime periods and between 1 and 4 dB during night-time periods, while remaining within identified noise criteria. Ambient noise levels are and will continue to be dictated by road traffic noise in the area. A low level of plant noise is expected to be audible during lulls from other sources. The predictions assume that day to day plant is operating at full / high duty which is a conservative assumption. The actual noise levels on the ground will likely be lower. There will be an imperceptible impact at off-site noise sensitive locations on foot of vehicle movements associated with the site.

7.15.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 8 of the EIAR and all associated documentation and submissions on file. The site is zoned to facilitate enterprise and employment uses and is located in an area which is characterised by a number of similar industrial developments. The site is not located within a quiet area with reference to EPA NG4 guidance and is not located in an area of low background noise. Condition no. 14 of the parent permission sets operational noise limits at noise sensitive locations.

The largest noise and vibration impact will occur during the construction phase of the proposed development due to the operation of plant machinery and HGV movement to, from and around the site. Predicted noise levels are within the adopted noise criteria. The range of vibration levels is typically below that which would cause disturbance to occupants of any nearby buildings. During the operational phase, the predicted increase in existing noise levels at the nearest noise sensitive locations on foot of the overall project (emergency operations with diesel generators) is ‘not significant’ during the daytime and evening periods. A ‘not significant’ to ‘slight’ impact is noted during nighttime periods.

A range of standard mitigation measures are identified to address the identified effects. There will be no significant effects from the operation of the permitted and

proposed developments. The cumulative noise impact of the overall project and other permitted developments would result in a moderate noise impact on the nearest noise-sensitive residential location which is within the typical EPA NG4 nighttime noise criterion.

Having regard to the foregoing, I am satisfied that the potential for significant adverse noise and vibration impacts during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative noise or vibration effects.

7.16. Air Quality

7.16.1. Issues Raised

7.16.2. The EPA notes that emissions to air from the on-site generators could potentially impact air quality, particularly from nitrogen oxides.

7.16.3. Examination, Analysis and Evaluation

Context

The impact which the proposed development may have an Air Quality is examined in Chapter 9 of the EIAR. The assessment is undertaken in accordance with government and industry best practice guidelines. Air dispersion modelling was carried out using the United States EPA regulated model AERMOD, an advanced model recommended within the air modelling guidance document ‘Air Dispersion Modelling from Industrial Installations Guidance Note’ published by the EPA in Ireland in 2020. The modelling of air emissions from the site was carried out to assess concentrations of NO_2 at a variety of locations beyond the site boundary.

Associated appendices include Appendix 9.1 (Description of the AERMO model), Appendix 9.2 (Description of Aermet – meteorological pre-processor incorporated into AERMOD) and Appendix 9.3 (Thermal Plume Modelling Assessment of Proposed Onsite Power Generation). No limitations are identified or evident in the assessment.

The proposed development will have 10 no. gas generators on the OSGP facility, while the permitted development has 9 no. diesel generators associated with the DB8 data centre. A maximum of 7 no. diesel generators will be operating at any one time. These will provide power to the site when power from the OSGP is not available. A front of house generator will also be in operation.

Baseline

Due to reduced traffic on foot of Covid-19 restrictions, data from 2016-2019 and 2021 has been used to determine the baseline air quality in the region of the site. The site is located within Zone A (Dublin) of the air quality zones that have been identified for Ireland.

Continuous monitoring data from the EPA (2022) shows that NO_2 levels at suburban Zone A background locations are below both the annual and 1-hour limit values, with annual average levels ranging from 11-20 $\mu g/m^3$ over the period 2016-2021. The station at Swords is at a similar distance outside the M50 and provides a suitable indication of background NO_2 concentrations in the region. Annual average results at the Swords site range from 11-16 g/m^3 between the 5-year period (2016-2019, 2021) with an average of 14 $\mu g/m^3$. Based on these results, an estimate of the background NO_2 concentration in the region is 15 $\mu g/m^3$. It is expected that background levels of pollutants will remain at a similar level in the opening year.

Continuous $PM_{2.5}$ monitoring carried out in the location of Zone A Rathmines showed an average concentration of 10 $\mu g/m^3$ in 2019. The ratio of $PM_{2.5}$ to PM_{10} is estimated to be in the region of 0.7 with a representative background concentration of 10 $\mu g/m^3$ estimated for the region.

7.16.4. **Potential Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• Construction phase: Ambient air quality at the site will remain as per the baseline and will change in accordance with trends in the wider area. This scenario is neutral in terms of air quality. • Operational Phase: This scenario considers the backup generators operating for 72 hours per year, which involves the emergency operation of 7 of the 8 generators. This scenario also included weekly testing of all 8 generators. The impact is long-term, localised, negative and slight.
Construction	• Proposed Development & Overall Project: Construction dust emissions from excavation works, infilling and landscape activities and storage of soil in stockpiles leads to the potential for nuisance dust. • Fuel will be stored in sealed containers and emissions to air are likely to be minimal – unlikely to be an impact to air quality. • Initial commissioning activities will involve testing of backup generators on site. Operational modelling has considered weekly testing of the generators which does not result in a significant impact to air quality. • The construction phase and initial commissioning tests will result in an imperceptibly negative impact to air quality in the short-term and will have a not significant impact.
Operation	• Potential impact to air quality is a breach of the ambient air quality standards as a result of air emissions from the gas engines and backup generators. An iterative stack height determination was undertaken to ensure adequate release height was selected for all emission points to aid dispersion of plume and ensure compliance with limit values at all locations beyond the site boundaries. • The operational phase of the development will remain in compliance with ambient air quality standards.
Decommissioning	• If decommissioning of the OSGP is required, the construction stage mitigation measures will be employed.
Monitoring	• None identified. An Industrial Emissions Licence may be required for the proposed development.
Cumulative	• Construction Phase: Subject to mitigation measures, cumulative fugitive emissions of dust and particulate matter from the Overall Project and nearby facilities under construction will be negligible, short-term and not significant, posing no nuisance at nearby receptors. • Operational Phase: Ambient NO_2 concentrations as a result of the Overall Project and nearby facilities within 1km are in compliance with the relevant ambient air quality limit values at all locations at or beyond the site boundary. The cumulative impact is long-term, localised, negative and slight.

Table 10.6: Summary of Potential Effects: Air Quality

7.16.5. **Mitigation**

The following construction stage mitigation measures are proposed:

- At construction planning stage, the siting of activities and storage piles will take note of the location of sensitive receptors and prevailing wind directions to minimise the potential for significant dust nuisance.
- Identification of site management responsibilities for dust issues.
- Development of a documented system for managing site practices for dust control.
- Good site management will include the ability to respond to adverse weather conditions by either restricting operations on site or implementing effective control measures before the potential for nuisance occurs.
- The development of a means by which the performance of the dust minimisation plan can be regularly monitored and assessed, and
- Measures to deal with any complaints received.

The following is noted with respect to operational stage mitigation measures:

- The stack heights of the gas engines and backup generators have been designed in an iterative manner to ensure an adequate height was selected to aid dispersion of emissions and achieve compliance with EU ambient air quality standards at all off-site locations. No additional mitigation measures are proposed.

7.16.6. **Residual Effects**

Construction Phase: Proposed Development – (i) OSGP and (ii) Data Centre and OSGP

- Subject to the implementation of identified dust mitigation measures, fugitive emissions of dust and particulate matter will be negligible, short-term and not significant.
- The mitigation measures will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health.

Operational Phase: Proposed Development – OSGP

- Comprises the gas engine emission points running on gas for the full year. The impact is considered long-term, localised, negative and slight.

Operational Phase: Proposed Development – Overall Project (Data centre and OSGP)

- Comprises the gas engine emission points running on gas for the full year in addition to the operation of the backup generators for 72 hours per year involving the emergency operation of 7 of the 8 generators. Weekly testing of all 8 generators also included. The impact is considered long-term, localised, negative and slight.

Regional Air Quality (Ireland's obligations under Directive (EU) 2016/2284)

- Permitted Development: Data Centre Scenario

The NO_x, SO_2, NMVOC and $PM_{2.5}$ emissions based on electricity from the national grid are indirect, long-term, negative and slight with respect to regional air quality.

- Proposed Development: OSGP Scenario

The NO_x, SO_2, NMVOC and $PM_{2.5}$ emissions associated with the operation of the proposed development based on natural gas are direct, long-term and negligible.

- Overall Development: Data Centre and OSGP

The NO_x, SO_2, NMVOC and $PM_{2.5}$ emissions associated with the operation of the overall project based on natural gas are direct, long-term, negative and slight.

7.16.7. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 9 of the EIAR and all associated documentation and submissions on file. The greatest potential impact on air quality during the construction phase of the proposed development and overall project is from dust emissions arising from construction activities. I note that the majority of such dust emissions occurs within the first 50 m of construction sites. Fuels will be stored in sealed containers and emissions to air are likely to be minimal. Initial commissioning activities on the site will include testing of the back-up generators. Operational modelling has considered weekly testing of the generators, which does not result in a significant impact to air quality.

The potential impact on air quality during the operational phase of the proposed development and overall project is a breach of ambient air quality standards on foot of air emissions from the gas engines and back-up generators. Air dispersion modelling has been used to determine the appropriate stack height to ensure an adequate release height was selected for all emissions to aid dispersion of the plume and ensure compliance with ambient air quality limit values at all locations beyond the site boundaries. The operational phase of the development, including when considered in combination with nearby facilities within 1 km, will remain in compliance with the ambient air quality standards.

The consideration of residual effects of the proposed development includes the construction and operational phases of the proposed development (OSPG) and the overall project (data centre and OSPG). Subject to the implementation of the identified mitigation measures, the fugitive emissions of dust and particulate matter during the construction phase will be negligible, short-term and not significant. The operational phase of the overall project, which comprises the gas engine emission points running on gas for the full year in addition to the operation of the backup generators for 72 hours per year and weekly testing of all 8 no. generators, results in an air quality impact which is long-term and slight in terms of significance and negative in terms of quality. No significant impacts will arise to regional air quality on foot of NO_x, SO_2, NMVOC and $PM_{2.5}$ emissions based on the use of electricity from the national grid or the use of natural gas in the OSPG.

Having regard to the foregoing, I am satisfied that the potential for significant adverse impacts on air quality during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in respect of air quality.

7.17. Microclimate - Wind

7.17.1. Issued Raised

No issues have been raised by parties to the appeal in relation to wind.

7.17.2. Context

The effect of the proposed development on the microclimate of the site is considered in Chapter 10 of the EIAR. The assessment is undertaken in accordance with government and industry best practice guidelines. No limitations are identified or evident in the assessment.

A Wind Micro-Climate Modelling study has been undertaken to determine how the proposed development may modify wind patterns that form when wind moves through the built environment. The effect of the geometry, height and massing of the proposed development and existing surroundings including topography, ground roughness and landscaping of the site on local wind speed and direction is considered as well as the pedestrian activity to be expected (sitting, standing, strolling and fast walking). The study analyses wind flow to develop a 'Lawson Comfort and Distress Map' which identifies where a specific pedestrian activity can be carried out comfortably most of the time.

The study considers buildings within a 400 m radius of the centre of the site which is more than 10 times the height of the buildings in the site location. The study area is identified in Figure 10.6 of the EIAR. Potential receptors are identified in Section 10.2.3 of the EIAR. The onsite receptor is the circulation area of the site where pedestrians/workers could potentially carry out activities. Grange Castle Golf Course and other data centre/office buildings to the north and west of the site are identified as sensitive off-site receptors.

Baseline

The baseline environment is defined as the permitted data centre development and the surrounding existing environment. The wind at the site is mostly blowing from the south-west direction with a wind velocity of approx. 5 m/s. A similar wind speed is blowing from the south-south-west direction.

Wind flow speeds at pedestrian level (1.5m) in the existing site are shown to be within tenable conditions, although some high velocity and recirculation effects are

found. The assessment of the baseline scenario has shown that no area is unsafe, and no conditions of distress are created in the existing environment under the local wind climate. The site is usable for walking and sitting and the roads in the surrounding are usable for their intended scope.

7.17.3. **Predicted Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• If the development is not constructed, the wind conditions on the site will be in line with those observed and shown in the results of the wind analysis of the baseline wind microclimate.
Construction	• Since windier conditions are acceptable within a construction area (not accessible to the public), the impacts evaluated on-site are considered insignificant. The predicted impacts are not significant or negligible and are similar to the existing (baseline) wind conditions.
Operation	• Wind speeds at pedestrian level are within tenable conditions and are generally similar to the wind speed of undisturbed flow for the direction considered. • No area is unsafe, and no conditions of distress are created by the proposed development. • The proposed development does not pose any increased risk related to wind comfort and distress. • The wind microclimate of the proposed development is suitable for the type of activities expected (walking). • The proposed development does not enhance any critical wind conditions on the off-site areas. • The impact significance on the potential on-site and off-site receptors is negligible.
Decommissioning	• No effects identified.
Monitoring	• None required during the construction phase. • The development has been designed to conform to acceptable Lawson Criteria for Comfort and Distress. No monitoring required.
Cumulative	• Assessment considers projects which have been granted planning permission but not yet constructed and those submitted for planning but not yet consented. • No area is unsafe, and no conditions of distress are created by the proposed development. • The proposed development does not pose any increased risk related to wind comfort and distress. • The wind microclimate of the proposed development is suitable for the type of activities expected (walking).

	• The proposed development does not enhance any critical wind conditions on off-site areas. • The impact significance on the potential on-site and off-site receptors is negligible.

Table 7.7: Summary of Potential Effects: Microclimate (Wind)

7.17.4. Mitigation

No mitigation measures required.

7.17.5. Residual Effects

Wind cannot be eliminated or mitigated as it depends on weather conditions which can vary. The wind speeds likely to occur on the site are below critical values and a pleasant and comfortable microclimate can be maintained most of the time and under most frequent wind scenarios. Gusts and storms can still occur and can create unpleasant and sometime unsafe conditions. In general, the pedestrian activities concerning the Lawson Comfort and Distress Criteria are not carried out during these weather conditions.

7.17.6. Assessment / Conclusion

I have examined, analysed and evaluated Chapter 10 of the EIAR and all associated documentation and submissions on file. I am satisfied that the potential for significant adverse impacts on foot of wind during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in respect of wind.

7.18. Landscape and Visual Impact Assessment

7.18.1. Issues Raised

No issues have been raised by parties to the appeal in relation to landscape and visual impact.

7.18.2. Examination, Analysis and Evaluation

Context

The landscape and visual impact of the proposed development is assessed in Chapter 11 of the EIAR. The assessment is undertaken in accordance with government and best practice industry guidelines. It considers the proposed development and the overall project. No limitations are identified or evident in the assessment.

Associated appendices include Appendix 11.1 (photomontages submitted at planning application stage), Appendix 11.2 (photomontages submitted at Further Information stage), Appendix 11.3 (Tree Survey Plan), Appendix 11.4 (Arboricultural Impact Plan), Appendix 11.5 (Arboricultural Inventory and Impact Assessment incorporating Tree Protection Strategy), Appendix 11.6 (Landscape Architect Design Report incorporating Landscape Specifications and Landscape Management Plan), Appendix 11.7 (Landscape Masterplan) and Appendix 11.8 (Preliminary CEMP).

Baseline

The site is greenfield in nature and is located at the entrance to Profile Park Business Park on the western outskirts of Dublin. The lands to the north and west are characterised by large-scale built industrial developments. The wider area is a popular area for data centres. Various office, commercial and industrial buildings are located across the road from the site within Kilcarbery Business Park. A petrol station is located directly north of the site. A small residential dormer bungalow block is located approx. 70m north of the site adjacent to the petrol station. A small residential housing estate is located 600m to the east of the site. Further to the west beyond IDA Grange Castle South Business Park, the landscape is of a rural typology with medium to large fields and individual houses. The fields are separated by tree lines and hedgerows which often block otherwise open landscapes. To the east and south of the site lies Grange Castle Golf Course, with artificial mounds and ponds

and managed landscaping. Original treelined field boundaries have been retained within the golf course which block open vistas across these lands.

A rural area is located directly south of Profile Park and includes a detached house and agricultural buildings which are screened by vegetation. The fields surrounding them provide an open landscape with views in all directions. Baldonnelll Casement Aerodrome dominates the landscape further south.

7.18.3. **Predicted Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The site will remain in its current state.
Construction	• Landscape Impact: Construction works will alter the character of the environment in a manner consistent with existing and emerging baseline trends. • The construction phase of the proposed development and overall project may have a negative impact on landscape character, which will be moderate in significance and short-term in duration. • Visual Impact: The overall impact during construction activities will be negative, moderate and short-term.
Operation	• Landscape Impact: The impact of the proposed development will not be that noticeable given the context of the permitted data centre building. • The proposed development will have a positive impact on the integration of the permitted data centre into the surrounding landscape via reduced overall height and omission of hot air plenums. The scale of the OSGP compound is not significant in the context of the permitted building and other buildings in the area. The impact of the proposed development is neutral, moderate and long-term / permanent. • The Overall Project will cause a transition from a greenfield site to a commercial/employment use. The scale of the building and ancillary buildings and equipment matches that of other buildings in the wider area. The site landscaping will improve the appearance of the site from public areas. • The Overall Project would have a noticeable impact on the current landscape character but will not adversely impact the sensitivity of the character. The changes are positive, moderate and long-term / permanent. • Visual Impact: The OSGP is located southwest of the permitted data centre and will be well screened by this building and existing vegetation. The effects can be rated as neutral and moderate. • The modifications to the permitted building will reduce its visual impact via omission of hot air plenums to the north façade and

	omission of gantry screening on roof. The impact of the changes is positive and moderate. • Due to the existing topography conditions and vegetation, the Overall Project will generally be well-screened with an impact rating from significant to imperceptible depending on the view and a quality rating of negative/neutral/positive. All effects are long term/positive. • 12 no. viewpoints adjoining the site were selected for a detailed assessment of visual impact of the existing, permitted and proposed development (photomontage views in Appendix 11.1). The magnitude of impacts ranges from imperceptible – insignificant - slight – neutral – moderate - significant. The quality of impacts ranges from negative – neutral – positive. The duration of impacts is long-term/permanent. • The visual impact of new lighting for the Overall Project is slight in magnitude and negative to neutral in quality. • The associated infrastructure projects (connections to services) will not have a significant impact on landscape character or visual amenity.
Decommissioning	• Construction phase visual impact associated with decommissioning of the OSGP would be negative, moderate and short-term. • Retaining the OSGP in the medium and long term would result in long-term/permanent visual and landscape impacts.
Monitoring	• Monitoring of construction works by site contractor and Ecological Clerk of Works. Landscape contractor will monitor/maintain site vegetation during the operational phase.
Cumulative	• Landscape Impact Proposed Development: Slight in magnitude, neutral in quality, long-term/permanent in duration. • Landscape Impact Overall Development: Moderate in magnitude, negative in quality, long-term/permanent in duration. • Visual Impact Proposed Development: Not significant to imperceptible in magnitude, positive - neutral in quality, long-term/permanent in duration. • Visual Impact Overall Development: Moderate in magnitude, negative in quality, long-term/permanent in duration.

Table 7.6: Summary of Potential Effects: Landscape & Visual Impact

7.18.4. **Mitigation**

The proposed mitigation measures include:

- Replacement of hot air plenum towers with panels to screen the generator flues. Flues' height matches screen heights, so the flues are not visible from the public road.

- Provision of a green wall and additional native trees in front of the OSGP compound.
- Flues associated with generators in OSGP compound arranged into 2 no. groups of 5 to lessen their visual impact.
- Scheme design has sought to develop an attractive façade and reduce the effect of building massing.
- External stairs on rear elevation break up the massing. Their steel support structure and stringers will be painted red to add interest to the rear façade.
- Separation of building function into data centre and office area further assists with breaking up the building massing, translated into the design using different materials and colours.
- Construction phase mitigation measures will include the use of solid hoarding around the site area; buffer zones of unexcavated ground will be maintained to protect root systems; no materials or equipment will be stored close to retained vegetation; appointment of Ecological Clerk of Works; and temporary construction compound lighting will be directed downwards.
- A maintenance contractor will be appointed to look after site vegetation during the operational phase.

7.18.5. **Residual Effects**

Once the project is completed and all landscape works are fully established, there will be no significant residual effects on landscape character or visual amenity.

7.18.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 11 of the EIAR and all associated documentation and submissions on file. I note that the overall visual impact of construction activities associated with the proposed development will be negative, moderate and short-term. The Overall Project will result in a transition from a greenfield site to an industrial/commercial use. The scale of the development matches that of other buildings in the adjoining area. It will have a noticeable impact on the current landscape character, but the changes are positive, moderate and long-term/permanent.

The modifications proposed to the permitted data centre will reduce its visual impact via the omission of hot air plenums on the north façade and the omission of gantry screening on the roof. The impact of these changes is positive and moderate. Due to the existing topography conditions and vegetation, the Overall Project will generally be well-screened with predicted impact ranging from significant to imperceptible depending on the view, with a quality rating of negative/neutral/positive. The proposed mitigation measures largely relate to design measures undertaken to reduce the massing of the building and screening treatments in the form of a green wall and additional tree planting to the front of the OSPG. I consider that the identified measures to be reasonable.

Having regard to the foregoing, I am satisfied that the potential for significant adverse landscape and visual impacts during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect landscape and visual impacts.

7.19. Traffic and Transportation

7.19.1. Issues Raised

No issues have been raised by parties to the appeal in relation to traffic and transportation.

7.19.2. Examination, Analysis and Evaluation

Context

The impact of the development with respect to traffic and transportation is considered in Chapter 12 of the EIAR. The assessment is undertaken in accordance with government and industry best practice guidelines. IEMA Environmental Assessment for Road Traffic has been used for the appraisal of traffic impacts for the proposed overall project. Potential impacts arising from changes in traffic levels include driver severance and delay, pedestrian severance and delay, pedestrian amenity, accidents and safety and hazardous and dangerous roads. Sensitive

receptors include pedestrians, cyclists and road users of the local road network. The study area includes links and junctions which provide the most direct access routes to the application site and are most likely to be affected by traffic travelling to/from the development. No limitations are identified or evident in the assessment.

Associated appendices include Appendix 12.1 (Site Map), Appendix 12.2 (Traffic Counts), Appendix 12.3 (Traffic Flow Diagrams) and Appendix 12.4 (Modelling Results).

The subject site will be accessed from the existing left-in/left-out junction located on the southwest boundary onto Falcon Avenue. The access located on the northwest boundary of the site is to be closed as part of this application. The new access will allow access for construction traffic and car parking within the construction compound to the immediate north of the entrance and in the longer term, will facilitate employee access to the development. The new access will include security gates located 40m into the site, thus ensuring there is no potential for queuing onto the public road.

It is proposed to provide 65 car parking spaces comprising 50 standard, 8 EV and 5 no. accessible spaces on site for all employees, visitors and contractors. Provision for cycle parking will also be made. Provision will also be made for an HGV turning area to allow for deliveries in a safe and efficient manner and to exit the site in forward gear.

Baseline

There are currently 2 no. vehicular access points into the site via Falcon Avenue. This dual carriageway road connects Profile Park to the external road network via a 4-arm roundabout to the north. The subject site will be accessed from the existing left-in/left-out junction located on the southwestern site boundary. The access located on the northwestern boundary is to be closed.

The roundabout at the northern end of Profile Park connects to the R134 New Nangor Road which is a 2-way regional road forming junctions with the R134 to the west and R136 to the east. A 60 km/hr speed limit is in operation on the R134 on approach to the junction while an 80 km/hr speed limit is in operation on approach from the R136.

Classified traffic counts were undertaken at the Profile Park/R134 roundabout on 16th March 2023 to quantify the volume of traffic movements on the road network adjacent to the site. The traffic surveys indicated an AM network peak period of between 08:00 and 09:00 and a corresponding PM peak of between 16:00 and 17:00.

A planning search was undertaken to identify any developments that have planning permission that are not yet implemented or any schemes that are implemented but are unlet or empty. The purpose of the search was to determine if there were other committed developments that would have a similar impact on the local road network. The identified developments were included in the modelling of the impacted junctions. The trips associated with these developments were assigned to the local road network and combined with the traffic count data to form the baseline traffic data. Growth factors were applied to the base network traffic flows to allow for a reflective analysis of the future year scenario.

Profile Park has the benefit of a combined 3 m footpath/cycle path and associated grass verge. The R134 has cycle paths on either side. A cycle greenway runs along the Grand Canal with access on to the R136 which in turns connects onto the R134. Existing cycle routes in the vicinity of the site are identified on Fig. 12.4 of the EIAR.

Several bus stops are located within 500 m/6-minute walking distance of the site. The nearest stops are on route Nos. 13 and 68. Dedicated bus lanes are provided in both directions on the R136 Outer Ring Road and the R134 Nangor Road east of the Profile Park roundabout. The site is within 500 m walking distance of Route No. 356 (peak hour only) and Route No. 256 (hourly services) which are proposed under the Bus Connects proposals. The bus network in the vicinity of the site will continue to operate at relatively low frequency following the implementation of the Dublin Area Bus Network Redesign Project.

The nearest rail station is Clondalkin-Fonthill station approx. 2.8km to the northeast. This station is served by approx. 20 suburban commuter trains in each direction during weekdays.

7.19.3. **Predicted Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The access roads and infrastructure will remain in their current state and there will be no change. Background traffic would be expected to grow over time. Given the site zoning, it is reasonable to assume that a similar development, with a potentially more intensive requirement for vehicular trips would be established on the site at some future stage.
Construction	• The effects of the construction phase would be slight negative, not significant and temporary for pedestrian amenity, driver delay and for accidents and safety.
Operation	• The effects of the operational phase would be slight negative, not significant and permanent. • Replacement of large equipment on site – slight negative, not significant and temporary effect. • Emergency maintenance of equipment may occur during network peak periods - slight negative, not significant and temporary effects.
Decommissioning	• Effects would be slight negative, not significant and temporary in terms of pedestrian amenity, driver delay and accidents and safety.
Monitoring	• The contractor will be required to agree and implement monitoring measures to confirm the effectiveness of mitigation measures outlined in the Construction Traffic Management Plan (CTMP). • Compliance with construction vehicle routing practices, construction vehicle parking practices, internal and external road conditions and timings of construction activities.
Cumulative	• Assessed in relation to developments that have planning permission but are not yet built or those which are built but not occupied that have the potential to travel through Profile Park roundabout. Substantial development in the planning system also considered (see page 399 of EIAR for schemes considered). • Cumulative effects will increase traffic at the Profile Park roundabout by 14.73% in the AM peak. The roundabout was put forward for further analysis, with modelling illustrating that the roundabout operates within capacity in the AM peak in all scenarios. The effects of the operation of the proposed development would be permanent, slight negative and not significant for driver delay.

Table 7.9: Summary of Potential Effects: Traffic & Transportation

7.19.4. **Mitigation**

The following mitigation measures are proposed during the construction phase:

- CMP includes a range of integrated control measures and associated management initiatives to minimise the impact of on-site construction activities – site will be securely fenced off; road works will be adequately signposted and enclosed; dedicated site access/egress junction; provision of sufficient on-site car parking; site offices and compound located within the site boundary; material storage zone; use of wayfinding signage; dedicated construction haul routes; truck wheel washes; reinstatement of site compound area on completion of site works.
- All construction activities will be governed by the CTMP.
- On-site holding area for the delivery of construction materials. No roadside offloading will be permitted.
- All construction vehicles tracked by traffic marshals. Logistics manager will control deliveries with help from traffic marshals and the gateman.
- Delivery of site supplies during off-peak periods.
- Site arrivals and departures to be carried out in as few vehicle movements as possible to minimise parking requirements and potential impacts on local road network.
- Construction traffic will be restricted to primary routes and will not be permitted to use residential routes.

The following mitigation measures are proposed during the operational phase:

- Staff and visitors to be made aware of sustainable modes of travel to the site.
- On-site replacement of larger equipment will be a planned intervention that can be undertaken outside of the network peak periods.

7.19.5. **Residual Effects**

- Construction Phase: The number of construction vehicle movements is less than 10% of the background traffic and is therefore considered relatively low compared to the wider road network. It is likely that the construction phase will have a negligible impact on pedestrian and cycle infrastructure.
- Operational Phase: The development will result in a minor uplift in congestion and delay locally with no significant effects on the wider road network. There will be no impact on the network PM peak period due to shift patterns falling outside of this time.
- The effects of the operation of the proposed development would be permanent, slight negative and not significant in terms of pedestrian severance, delay, amenity, fear and intimidation, driver delay, and accident and safety.

7.19.6. **Assessment / Conclusion**

I have examined, analysed and evaluated Chapter 12 of the EIAR and all associated documentation and submissions on file. The effects of the proposed development during the construction phase would be slight negative, not significant and temporary for pedestrian amenity, driver delay and accidents and safety. The effects for the operational phase would be slight negative, not significant and permanent. The predicted effects of the replacement of large equipment and emergency maintenance of equipment on site during the operational phase would be slight negative, not significant and temporary. Standard mitigation measures are proposed to address the predicted effects, including a CTMP and scheduling of deliveries outside of peak periods during the construction phase and the promotion of sustainable modes of travel during the operational phase. I am satisfied that the identified mitigation measures are reasonable and appropriate.

In terms of residual effects, I note that the number of construction vehicle movements will be low compared to the wider road network. During the operation phase the development will result in a minor uplift in congestion and delay locally, with no significant effects on the wider road network.

Having regard to the foregoing, I am satisfied that the potential for significant adverse impacts associated with traffic and transportation during the construction

and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect to traffic and transportation.

7.20. Material Assets - Waste Management

7.20.1. Issues Raised

No issues have been raised by parties to the appeal in relation to material assets – waste.

7.20.2. Examination, Analysis and Evaluation

Context

Chapter 13 of the EIAR evaluates the likely significant effects, if any, which the development may have on material assets (waste). A Site-Specific Resource Waste Management Plan (RWMP) has been prepared to deal with waste generation during the excavation and construction phases of the proposed development (included in Appendix 13.1 of the EIAR). The RWMP and the assessment have been prepared in accordance with government and industry best practice guidelines. No limitations are identified or evident in the assessment.

Section 13.10 notes that until final materials and detailed construction methodologies are confirmed, it is difficult to predict with a high level of accuracy the construction waste that will be generated from the proposed works. It is also noted that the ultimate selection of waste contractors and waste facilities will be subject to appropriate selection criteria including proximity, competency, capacity and serviceability.

Baseline

The receiving environment is largely defined by South Dublin County Council (SDCC) as the local authority responsible for setting and administering waste management activities in the area. This is governed by the requirements set out in the EMR Waste Management Plan 2015-2021 (to be replaced in 2023) and the Waste Action Plan for a Circular Economy – Waste Management Policy in Ireland.

These waste management plans set out the following targets for waste management in the region: (1) achieve a recycling rate of 55% of managed municipal waste by 2025, and (2) reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices. A specific target for C&D waste in the region is to achieve 70% for reuse, recycling and other recovery by 2020.

The National Waste Statistics published by the EPA in December 2022 identifies that Ireland met the 2020 target of preparing for reuse and recycling of 50% by weight of household derived paper, metal, plastic and glass (54% achieved).

SDCC no longer operates any municipal waste landfill in the area. There are several waste-permitted and licensed facilities located in the EMR Waste Region for the management of waste from the construction industry as well as municipal sources.

Predicted Effects

During the construction phase of the proposed development and the overall project, waste will be produced from surplus materials. An oversupply of materials may also be generated. Soil and stones will be excavated to facilitate construction of new foundations and installation of underground services (estimated volume of c. 10,314.24 m^3). It is envisaged that there will be an opportunity to reuse c. 9,341,113 m^3 of excavated material for landscaping and fill purposes. The remaining material will be taken off-site for reuse, recovery, recycling and/or disposal.

Waste will also be generated from construction phase workers. Small volumes of waste may also be generated from site offices. The main types of waste likely to be generated during the construction phase are summarised in table 13.1 of the EIAR.

It is anticipated that the operational phase of the proposed development will generate a range of very small amounts of mostly non-hazardous wastes, with some hazardous wastes (mainly for maintenance of machinery). The management strategy to be used for typical wastes generated at the site during the operational phase of the proposed development and the overall project are set out in Tables 13.2 and 13.3 of the EIAR respectively.

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• If the proposed development did not proceed, there would be a neutral effect on the environment with respect to waste.
Construction	• Construction Phase: A range of non-hazardous and hazardous waste materials will be generated during site excavation and construction. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees. Incorrect management and storage of waste could result in litter, pollution issues or presence of vermin – short-term, significant and negative impact in the absence of mitigation. • Use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate waste management and result in indirect negative environmental impacts. Effect on local and regional environment likely to be long-term, significant and negative. • Waste arisings will need to be taken to appropriate waste facilities. In the absence of mitigation, the effect on the local and regional environment is likely to be short-term, significant and negative. • In the absence of mitigation, the effect of the removal of excavated material on the local and regional environment is likely to be short-term, significant and negative.
Operation	• Operational Phase: Improper or lack of waste management would be a diversion from the waste hierarchy, leading to small waste volumes being sent to landfill. The effect on the local and regional environment is likely to be long-term, significant and negative. • Incorrect management and storage of waste could result in litter, pollution issues or presence of vermin – short-term, significant and negative impact in the absence of mitigation. • Waste arisings will need to be taken to appropriate waste facilities. In the absence of mitigation, the effect on the local and regional environment is likely to be long-term, significant and negative.
Decommissioning	• No effects identified.
Monitoring	• The Operator / Building Manager will be required to implement the Operational Waste Management Strategy.
Cumulative	• In a worst-case scenario, multiple developments in the area could be developed concurrently or overlap in the construction phase. Due to a high number of waste contractors in the South Dublin region, there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans. The likely effect will be short-term, not significant and neutral. • All current and potential developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a

	minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely to improve the efficiencies of waste collections in the area. • Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and management. The likely effect will be long-term, imperceptible and neutral.

Table 7.10: Summary of Potential Effects: Material Assets (Waste)

7.20.3. **Mitigation**

The following mitigation measures will be implemented during the construction phase:

- Measures outlined in the RWMP will be implemented in full.
- Building materials will be chosen to design out waste.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery.
- Where possible, left-over materials and any suitable construction materials shall be reused on site.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated will be segregated and stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the Contractor to ensure effective management of waste during excavation and construction works.
- Waste management training for construction staff.
- All waste leaving the site will be reused, recycled or recovered where possible.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

- Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material.

The following mitigation measures will be implemented during the construction phase:

- All waste materials will be segregated into appropriate categories and temporarily stored in appropriate bins, skips or other suitable receptacles in designated, easily accessible areas of the site.
- The Operator / Building Manager will be responsible for ensuring the implementation of the Operational Waste Management Strategy, ensuring a high level of recycling, reuse and recovery at the site.
- The Operator / Building Manager will regularly audit the onsite waste storage facilities and infrastructure and maintain a paper trail of waste documentation for all waste movements from the site.
- The Operator will ensure on-site segregation of all waste materials into appropriate categories.
- The Operator will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials.
- The Operator will ensure that all waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

7.20.4. **Residual Effects**

The implementation of the identified mitigation measures will ensure that high rates of reuse, recovery and recycling are achieved at the site during the construction and operational phases. It will also ensure that European, National and Regional legislative waste requirements are met and that associated targets for the management of waste are achieved.

The overall predicted impact of the proposed development when mitigation measures, local and national waste requirements, guidance and legislation are followed will be long-term, imperceptible and neutral.

7.20.5. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 13 of the EIAR and all associated documentation and submissions on file. The quantities and type of waste that will be generated on site during the construction phase of the proposed development have been identified. The majority of excavated soil and stone will be reused on site for infill and landscaping purposes. The remaining waste will be removed offsite for appropriate disposal. Small quantities of waste will be generated by construction workers and in onsite offices. During the operational phase, the proposed development will generate a range of very small amounts of mostly non-hazardous wastes, with some hazardous waste (machinery maintenance).

A range of mitigation measures are proposed to address the effects of waste generated during the construction and operational phases of the development. These include appropriate reuse/recycling, storage, disposal and transportation of waste materials. I am satisfied that the identified measures are reasonable and appropriate.

Having regard to the foregoing, I am satisfied that the potential for significant adverse impacts associated with material assets (waste) during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts with respect to material assets (waste).

7.21. Material Assets - Utilities

7.21.1. Issues Raised

No issues have been raised by parties to the appeal in relation to material assets – utilities.

7.21.2. Examination, Analysis and Evaluation

Context

Chapter 14 of the EIAR examines the potential impact of the proposed development on material assets including ownership and access, built services and infrastructure not covered in other chapters of the EIAR. The potential impacts are considered in respect of: (i) land use, property and access, (ii) power and electrical supply, (iii) surface water infrastructure, (iv) foul drainage infrastructure, (v) water supply, (vi) gas supply, and (vii) telecommunications. Associated appendices include Appendix 14.1 (ESB Communication) and Appendix 14.2 (GNI Contract and Drawings).

The assessment is undertaken in accordance with government and best practice industry guidelines. No limitations are identified or evident in the assessment.

Baseline

No electrical connections are located within the site, but the land contains an ESB wayleave for a 220 kV cable corridor which runs along the western and northern boundaries. The site is currently greenfield in nature and has no surface water drainage infrastructure. South Dublin County Council record drawings identify 3 no. 150 mm / 225 mm diameter spur foul drainage connections in the western boundary of the site. The existing foul sewer network has the capacity to cater for the effluent discharge from the proposed development. South Dublin County Council record drawings also identify an existing 160 mm diameter water main located within Falcon Avenue adjacent to the western boundary of the site. 2 no. 160 mm diameter capped connections with sluice valves have been left off this watermain to facilitate the development of the subject site. There is also an existing 700 mm diameter trunk main running parallel to the New Nangor Road adjacent to the northern boundary. The proposed development will be connected to the GNI low pressure network as identified on figure 14.6 of the EIAR. Telecommunication lines for telephone and

broadband services exist in the area. There are existing underground carrier ducts adjacent to the site which will be used for the development.

7.21.3. **Potential Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• There will be no impact on any of the existing material assets in the area.
Construction	• The potential impact associated with land use and property for the construction phase (such as dust, noise, pollution of groundwater or existing drainage ditches) will be localised, negative, not significant and short term. • Laying of underground electricity cables and a gas pipeline has the potential to directly impact the electrical and gas network service. • Water supply and wastewater collection infrastructure has the potential to be directly impacted by digging works. • There is potential for unidentified utilities to be damaged during the construction phase – slight, negative temporary impact. • Power requirements for the construction phase will be relatively minor. The potential impact associated with power and electricity supply for the construction phase will be neutral, imperceptible and short-term. • Potential for increased surface water runoff due to introduction of impermeable surfaces and compaction of soils – potential for sediment loading which could potentially impact local drainage. • Potential impact on foul drainage is negative, imperceptible and short term. • Impact on potable water infrastructure is neutral, imperceptible and short term. • No potential impacts associated with telecommunications.
Operation	• Long term neutral impact on local utilities when the OSPG is operating. • When OSPG connected to the grid and providing dispatchable power, added security to grid – long term positive effect. • Potential impact on material assets during the operational phase is neutral, slight and long term. • Potential impact on foul drainage and potable water infrastructure is neutral, imperceptible and long term. • No potential impacts associated with telecommunications.
Decommissioning	• No effects identified.
Monitoring	• Monitoring arrangements will be reached with utility suppliers as required.

Cumulative	• No significant cumulative impact anticipated.

Table 7.11: Summary of Potential Effects: Material Assets (Utilities)

7.21.4. **Mitigation**

- Ongoing consultation with Uisce Éireann (Irish Water), EirGrid, ESB Networks, GNI and other relevant utility providers to ensure compliance with any requirements/guidelines.
- General contractor will be obliged to put best practice measures in place to ensure no disruption to utilities, unless agreed in advance.
- All mitigation measures identified in the CEMP will be implemented in addition to any requirements arising under planning conditions.
- To mitigate any impact on surface water runoff, the new drainage network shall be constructed on a phased basis and temporary pipes and detention ponds shall be constructed, as required.
- Storage of liquid materials within temporary bunded areas, double skinned tanks or bunded containers during the construction phase.

7.21.5. **Residual Effects**

The resulting predicted impacts on material assets from the overall project will be positive, slight and permanent.

7.21.6. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 14 of the EIAR and all associated documentation and submissions on file. The proposed development can be facilitated with water, foul water and surface water drainage connections. There is potential for local service networks to be damaged during construction works. The introduction of impermeable surfaces and compaction of soil during construction works could also cause sediment loading which could impact on local drainage networks. In the event the OSPG is connected to the grid during the operational phase, it will provide dispatchable power, providing added security to the grid, which is a long-term positive effect. Standard mitigation measures are proposed to address the potential effects including adherence to the requirements of utility providers, the implementation of best practice construction measures, adherence to the CEMP and

the construction of the new drainage network on a phased basis. I am satisfied that the identified mitigation measures are reasonable and appropriate.

Having regard to the foregoing, I am satisfied that the potential for significant adverse impacts associated with material assets (utilities) during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect to material assets (utilities).

7.22. Cultural Heritage (Architectural)

7.22.1. Issues Raised

No issues have been raised by parties to the appeal in relation to Architectural Cultural Heritage.

7.22.2. Examination, Analysis and Evaluation

Context

The impact of the development on Architectural Cultural Heritage is considered in Chapter 15 of the EIAR. The methodology is grounded in statutory requirements of legislation protecting architectural heritage in Ireland. The assessment is undertaken in accordance with government and industry best practice guidelines. No limitations are identified or evident in the assessment.

Baseline

The National Inventory of Architectural Heritage (NIAH) identifies 10 no. structures within 200 m of the proposed development. All these properties, excluding Kilcarbery House, are sufficiently distant such that the overall project will have little or no bearing on their visual integrity or any material change in their setting. Kilcarbery House (a Protected Structure), a detached 3-bay, 2-storey dwelling, is located approx. 400 m to the south-east of the application site and is obscured from the site by tree and vegetation cover. Other Protected Structures in the vicinity of the site are identified in table 15.2 of the EIAR. There are no ACA’s within or in the vicinity.

Upstanding monuments in the vicinity of the site are identified in table 15.3 of the EIAR. The closest monument listed in the Record of Monuments and Places (RMP) is Nangor Castle (DU017-037) which is located approx. 460 m to the north and is separated from the site by the Nangor Road. Kilbride Church and cemetery (DU021-004) lies approx. 700 m to the south.

There are no upstanding architectural features on the site and no record of any such structure having existed. The southern and eastern boundaries are formed of the Kilcarbery / Ballybane townland boundaries, which are well-preserved in most parts and form part of Kilcarbery Demesne listed in the NIAH. This boundary was previously the ancient boundary separating Ballybane from Kilbride.

7.22.3. Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• Incremental works could damage the ancient boundary where works are not subject to planning controls or a strategy of preservation.
Construction	• Potential risk to visual integrity and long-term preservation of southern and eastern portion of boundary caused by movement of plant, adjacent trenching etc.
Operation	• Additional changes to the configuration of services / utilities could affect the townland boundary. • Serious damage to the townland boundary is unlikely on foot of the implementation of the buffer zone.
Decommissioning	• No effects identified.
Monitoring	• None identified.
Cumulative	• None expected.

Table 7.12: Summary of Potential Effects: Cultural Heritage (Architectural)

7.22.4. Mitigation

Any limited breaches of the vegetation, banks or ditch of the townland boundary should be limited in nature, in consultation with an archaeologist/architectural historian.

A 10m buffer zone should be in place to ensure construction works will not cause more substantial damage to the boundary.

7.22.5. **Residual Effects**

Litter, decay and weather erosion may affect the boundary ditch/banks/vegetation.

7.22.6. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 15 of the EIAR and all associated documentation and submissions on file. I am satisfied that the potential for significant adverse effects on Architectural Cultural Heritage during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect to Architectural Cultural Heritage.

7.23. **Cultural Heritage (Archaeology)**

7.23.1. **Issues Raised**

No issues have been raised by parties to the appeal in relation to Archaeological Cultural Heritage.

7.23.2. **Examination, Analysis and Evaluation**

Context

The impact of the development on Cultural Heritage (Archaeology) is considered in Chapter 16 of the EIAR. The assessment is undertaken in accordance with national legislation and government and industry best practice guidelines. No limitations are identified or evident in the assessment.

Baseline

There are no archaeological monuments in State care in the vicinity of the overall project. Table 16.1 of the EIAR lists the archaeological monuments located within the vicinity of the proposed development. Previous archaeological fieldwork in the vicinity of the site is identified in Table 16.2. The closest listed monument is Nangor Castle (DU017-037) which is located approx. 460 m to the north and is separated from the site by the Nangor Road. Kilbride Church and cemetery (DU021-004) lies

approx. 700 m to the south. No finds are listed in the topographical files of the National Museum pertaining to the townlands within the vicinity of the overall project.

The site is situated entirely in the townland of Ballybane, within the parish of Clondalkin and the barony of Uppercross. There has been no evidence to date for Mesolithic presence in the immediate vicinity of the site. Neolithic activity has been recovered and it is possible that neolithic remains exist on the site. A range of Bronze Age finds were recently excavated in the vicinity including a Fulacht Fiadh and cremation pits. There is a high possibility of the remains of a Fulacht Fiadh existing on lands close to the townland boundary. A range of early Medieval enclosures have been found in the area. Medieval remains such as field boundaries may be extant under the surface of the site. The southern and eastern boundary is formed of the Kilcarbery / Ballybane townland boundaries.

7.23.3. Potential Effects

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The continuation of the current status of the lands will leave any subsurface archaeological remains intact. The integrity of the townland boundary may suffer as a result of neglect due to litter, dust and unsupervised nearby activities.
Construction	• Archaeological remains within the overall project are likely to be disturbed by associated groundworks.
Operation	• Significant impacts on archaeological remains are unlikely during the operational phase.
Decommissioning	• No effects identified.
Monitoring	• Monitoring of groundworks by a licensed archaeologist during construction works. None required during operational phase.
Cumulative	• None expected.

Table 7.13: Summary of Potential Effects: Cultural Heritage (Archaeology)

7.23.4. Mitigation

Test trenching prior to construction is identified as the most appropriate method of assessing the presence of any subsurface archaeology.

7.23.5. Residual Effects

None identified.

7.23.6. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 16 of the EIAR and all associated documentation and submissions on file. I am satisfied that the potential for significant adverse impacts associated with Cultural Heritage (Archaeology) during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect to Cultural Heritage (Archaeology).

7.24. Daylight, Sunlight and Overshadowing

7.24.1. **Issues Raised**

No issues have been raised by parties to the appeal in relation to daylight, sunlight and overshadowing.

7.24.2. **Examination, Analysis and Evaluation**

Context

Chapter 17 of the EIAR assesses any potential impact in respect of daylight, sunlight and overshadowing of the neighbouring buildings on foot of the proposed development. The assessment is undertaken in accordance with government and industry best practice guidelines. Appendix 17.1 includes a Shadow Study of the overall project. No limitations are identified or evident in the assessment.

Baseline

The site is currently greenfield in nature with some areas of hardstanding. There is no shadow cast from any structures in the baseline scenario. Two commercial buildings within Kilcarbery Business Park, a residential building (Nangor Lea) and a fuel station and retail unit are located on the northern side of the New Nangor Road opposite the subject site.

7.24.3. **Predicted Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• The site is greenfield in nature with no existing structures.
Construction	• During construction works, the presence of a crane or bore equipment would be considered imperceptible due to their slender size and temporary nature.
Operation	• There are no buildings within the Zone of Influence of the overall project. • Any reduction in available daylight or sunlight from the Proposed Development will be negligible and meets the recommendations of the BRE Guidelines BR209:2022 (3rd edition). • There is no additional shadowing to any of the adjacent buildings on 21st March on foot of the proposed development and the overall project. • Limited shadows are cast from the Proposed Development to a small area of ground in Grange Castle Golf Club in the late afternoon on the 21st March. • The impact of overshadowing from the proposed development and the overall project will be negligible.
Decommissioning	• None identified.
Monitoring	• None identified.
Cumulative	• Limited to permitted developments and developments currently in the planning process within a radius of 500 m of the site. • The duration and frequency of shadow effects will be momentary and will occur at the same time each day. The effect will extend further at the winter solstice and less at the summer solstice. • Loss of sunlight is well within guideline limits and a classification of negligible is appropriate.

Table 7.14: Summary of Potential Effects: Daylight, Sunlight & Overshadowing

7.24.4. **Mitigation**

During the construction phase, all scaffolding, hoarding and cranes will only be used for as long as necessary resulting in a negligible impact.

The overall project represents the worst-case scenario in terms of assessing the effect on daylight, sunlight and overshadowing. This is not projected to change over the operational phase of the development.

7.24.5. **Residual Effects**

The effect of the overall project has been mitigated through design. Any residual impact on the daylight, sunlight and overshadowing of the adjacent properties is not significant.

7.24.6. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 17 of the EIAR and all associated documentation and submissions on file. I am satisfied that the potential for significant adverse effects associated with daylight, sunlight and overshadowing during the construction and operational phases of the proposed development can be avoided, managed, and mitigated by measures that form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects with respect to daylight, sunlight and overshadowing.

7.25. **Climate**

7.25.1. **Issues Raised**

Third parties have raised concerns regarding the compliance of the proposed development with national climate obligations.

7.25.2. **Examination, Analysis and Evaluation**

Context

The impact the proposed development may have on climate is assessed in Chapter 18 of the EIAR. The assessment is undertaken in accordance with relevant policy and legislation and government and industry best practice guidelines. In the absence of specific Irish or UK guidance in relation to industrial facilities, the guidance from the UK Highway Agency “Design Manual for Roads and Bridges - LA114 Climate” has been consulted and is noted to be relevant to GHG emissions from industrial sources. It advises that the assessment of a proposed development should describe the likely significant effects on the environment resulting from both GHG emissions and the vulnerability of a project to climate change.

No limitations are identified or evident in the assessment.

Baseline

The region of the proposed development has a temperate, oceanic climate, resulting in mild winters and cool summers. Meteorological data recorded at Casement Aerodrome over a 30-year period from 1981 – 2010 indicates that the wettest months were October and December and the driest month on average was February. July was the warmest month with a mean temperature of 15.7ºC. A noticeable feature of recent weather has been an increase in the frequency and severity of storm events. Heavier historical rainfall events have also been recorded in recent years.

The baseline GHG emissions in Ireland in 2021 are estimated to be 61.528 Mt CO_{2eq}. The sector with the highest emissions is agriculture (37.5%), followed by transport (17.7%) and energy industries (16.7%).

7.25.3. **Predicted Effects**

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	• Construction Phase: If no construction works take place, the site will remain greenfield and will not lead to any GHG emissions – neutral impact in terms of climate. • Operational Phase: GHG emissions will take place from the permitted development - indirect (due to electricity) and direct (due to diesel usage) CO_2 emissions.
Construction	• Construction vehicles and machinery will give rise to CO_2 and N_2O emissions. Indirect emissions of GHG will also occur due to embodied carbon associated with the raw materials used in the construction of the development. • Emissions will have a short-term and imperceptibly negative impact on climate and thus have a not significant impact. • The likelihood of extreme weather and flooding is assessed to be of either very low or low likelihood and with a moderate adverse effect leading to a finding of low risk and thus a non-significant impact. • No major accident scenarios of concern have been identified due to climate change. As such, there is no risk of a major accident.
Operation	• In the absence of mitigation, the proposed development and overall project has the potential to release significant quantities of GHG emissions. • Climate change has the potential to alter weather patterns and increase the frequency of rainfall, leading to GHG impacts which include: (1) increased average temperatures will lead to requirement for greater cooling of the data centre leading to greater energy use and associated GHG emissions, (2) increased rainfall

	will lead to a greater risk of flooding, (3) periods of drought may lead to reduction in water availability. • The likelihood of extreme weather and flooding was assessed to be of low likelihood and with a moderate adverse effect leading to a finding of low risk and thus a non-significant impact. • Temperature increase due to climate change does not increase the risk of major accident at the proposed development – non-significant impact.
Decommissioning	• If decommissioning of the OSPG is required, the direct GHG emissions from the gas engines will not occur after 6-8 years and GHG emissions will occur indirectly from electricity generation from the national grid.
Monitoring	• None identified.
Cumulative	• All global cumulative GHG sources are relevant to the effect on climate change. Thus, the effects of GHG emissions from specified cumulative projects in general should not be individually assessed – there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other.

Table 7.15: Summary of Potential Effects: Climate

7.25.4. Mitigation

The mitigation measures proposed during the construction phase include:

- All vehicles required to switch off engines when stationary.
- All vehicles will be serviced and maintained to ensure emissions are minimised.
- Embodied carbon will be investigated at detailed design stage.
- Where practicable, materials will be reused and will be sourced locally to reduce the embodied emissions associated with transport.

The mitigation measures proposed during the operational phase include:

- Gas engines and diesel generators will be regularly serviced to ensure they operate to maximum efficiency.
- The data centre is designed to minimise energy use including the use of PV roof panels.

- A heat recovery building is provided in the event a future connection can be made to a local district heating system.
- From the chillers, water is circulated into data hall fan arrays which distribute cooled recirculated air back into the data hall.
- Plant future proofed to use biomethane.

7.25.5. **Residual Effects**

Construction Phase: Proposed Development - OSPG

- Site traffic and plant is unlikely to make a significant impact on climate.
- Likely impact on climate change is deemed to be short-term, imperceptibly negative and not significant in relation to Ireland's obligations under the EU 2030 target.

Construction Phase: Overall Development (Data Centre & OSPG)

- Site traffic and plant is unlikely to make a significant impact on climate.
- Likely impact on climate change is deemed to be short-term, imperceptibly negative and not significant in relation to Ireland's obligations under the EU 2030 target.

Operational Phase: Impact of Climate Change on Proposed Development – OSPG

- Climate change has the potential to alter weather patterns and increase the frequency of rainfall in future years.
- A detailed flood risk assessment has been undertaken and adequate drainage and attenuation has been provided to account for increased rainfall in future years.
- The impact of climate change on the Proposed Development – OSPG will be imperceptible.

Operational Phase: Impact of Proposed Development – OSPG on Climate

- The main GHG emissions will be associated with gas engines associated with the operation of the data centre and infrequent operation of the backup generators.

- It is assumed the facility will use natural gas from opening year until approx. 2031. The CO_2 emissions to operate the Proposed Development – OSPG is approx. 705 tonnes of CO_{2eq} per year based on the likely 2026 electricity mix and approx. 643 tonnes of CO_{2eq} per year based on the likely 2030 electricity mix.
- By 2032 it is assumed that the facility will operate using electricity from the national grid. The emissions are estimated to be 156 tonnes of CO_{2eq} per year based on the likely 2032 electricity mix.
- For the Proposed Development – OSPG scenario, the electricity provided through the national grid will fully operate under the ETS which will gradually increase the carbon price in future years to ensure all EU-wide GHG emission targets are met under the scheme.

Operational Phase: Impact of Overall Development (Data Centre & OSPG) on Climate

- The main GHG emissions will be associated with gas engines associated with the operation of the data centre and infrequent operation of the backup generators. It is assumed the facility will use natural gas from opening year (2025) to approx. 2031.
- The direct CO_2 emissions to operate the Overall Development equates to approx. 21,975 tonnes of CO_{2eq} per year (including generator testing) based on likely 2026 natural gas/biomethane fraction and approx. 20,002 tonnes of CO_{2eq} per year (including generator testing) based on the likely 2030 natural gas / biomethane fraction.
- By 2032 it is assumed that the facility will operate using electricity from the national grid – approx. 7,389 tonnes of CO_{2eq} per year (including generator testing) based on the likely 2032 electricity mix.
- For the Overall Development scenario, the electricity provided through the national grid will fully operate under the ETS.

Impact of the Operational Phase on Climate: Medium Term Option Scenario – Retain the OSPG with a Grid Connection

- Under this scenario, the facility will operate using electricity from the national grid by 2032 and infrequent operation of the OSPG for up to 500 hours per year.
- Predicted electricity use translates to approx. 8,878 tonnes of CO_{2eq} per year (incl. generator testing) based on likely 2032 emission rates and approx. 5,548 tonnes of CO_{2eq} per year (incl. generator testing) based on likely 2040 electricity emission rates.
- The power provided through the OSPG will fully operate under the ETS.

Impact of the Operational Phase on Climate: Overall Development (Data Centre and OSPG) based on Long-Term Operation of the OSPG

- The main GHG emissions will be associated with gas engines associated with the operation of the data centre, which is assumed to remain in operation for at least 15 years, and infrequent operation of the backup generators.
- It is assumed the facility will use natural gas from opening year until at least 2040.
- Predicted energy use translates to approx. 29,838 tonnes of CO_{2eq} per year (incl. generator testing) based on the likely 2032 natural gas/biomethane fraction and approx. 25,764 tonnes CO_{2eq} per year (incl. generator testing) based on likely 2040 natural gas / biomethane fraction.
- The power provided through the OSPG will fully operate under the ETS.

Subject to the implementation of the identified mitigation measures, the residual impacts on climate from the construction of the proposed development will be short-term and imperceptibly negative and for the operational phase of the proposed development will be long-term, negative and minor adverse. Thus, in terms of climate, both the construction and operational phases will be not significant.

7.25.6. **Analysis / Conclusion**

I have examined, analysed and evaluated Chapter 18 of the EIAR and all associated documentation and submissions on file. In a do-nothing scenario (i.e. the permitted development), GHG (CO_2) emissions will be generated indirectly through electricity use and indirectly through diesel usage in the generators. During the construction

phase, GHG emissions will have a short-term and imperceptibly negative impact on climate. In the absence of mitigation, the Proposed Development and Overall Project has the potential to release significant quantities of GHG emissions. Increased average temperatures on foot of climate change will result in a requirement for greater cooling of the data centre, with increased energy use and associated GHG emissions. Increased rainfall will result in a greater risk of flooding and drought periods may lead to a reduction in water availability.

The construction stage measures which are proposed to mitigate the predicted effects include the investigation of embodied carbon at detailed design stage, the use of locally sourced materials and regular maintenance and servicing of construction vehicles.

The operational stage mitigation measures include regular servicing of gas engines and diesel generators, the use of PV roof panels to minimise energy use, the inclusion of a heat recovery building to facilitate a future connection to a district heating system, the use of cooled recirculated air in the data hall and the future proofing of the plant to use biomethane.

The residual effects of the Proposed Development and the Overall Project on climate change during the construction phase is deemed to be short-term, imperceptibly negative and not significant in relation to Ireland's 2030 climate targets. During the operational phase, GHG emissions will be generated on foot of the gas engines associated with the operation of the data centre and infrequent operation of the backup generators. The impact of the Proposed Development and the Overall Project on climate is considered and vice versa. The medium and long-term scenarios for the retention of the OSPG are considered. In the medium-term scenario where the OSPG is retained with a grid connection and is operated without a grid connection in the long-term scenario, it is noted that the power provided will operate fully under the Emissions Trading Scheme, which will gradually increase the carbon price in future years to ensure all EU-wide GHG emission targets are met. The residual impact on climate from the operational phase of the proposed development is deemed to be long-term, negative and minor adverse and not significant.

Having regard to the foregoing, I am satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative impacts with respect to climate.

7.26. Interactions

7.26.1. Issues Raised

No issues are raised by parties to the appeal in relation to interactions.

7.26.2. Examination, Analysis and Evaluation

Chapter 20 of the EIAR deals with interactions between the environmental factors during the operational and construction phases of the development. The interactions can be summarised as follows:

Population & Human Health	
Planning & Alternatives	The Overall Project will have a **short-term positive effect** on employment in the local area during the construction phase and a **long-term positive effect** (creation of 14 no. full-time jobs).
Land, Soils & Hydrogeology	The risk to construction and groundworkers, residents adjacent to and within the Proposed Development and Overall Project is considered to result in a **negligible short-term, temporary effect**, which is not significant during the construction phase.
Water	The Overall Project will not result in offsite flooding or impact on surface water flows in the local area. There is no residual negative interaction between these factors. The effect is considered **long-term, imperceptible and neutral**.
Waste Management	A carefully planned approach to waste management and adherence to the project specific RWMP (Appendix 13.1) will ensure the appropriate management of waste and avoidance of negative impacts on the local population. The effect is **long-term, imperceptible and neutral**.
Air Quality	The impact of the construction of the Overall Project will be **short-term and imperceptibly negative** and for the operational phase of the Proposed Development will be **long-term, negative**

	and slight. In terms of air quality, both the construction and operational phase will be **not significant.**
Climate	The residual impacts on climate from the construction of the Proposed Development will be **short-term and imperceptibly negative** and for the operational phase will be **long-term, negative and slight**.
Noise & Vibration	The proposed development will not give rise to any significant levels of vibration offsite. The associated impact is **not significant.** Noise emissions during the construction phase will be **slight, negative and short-term** in nature. Any change in noise levels on foot of traffic associated with the operational phase is expected to be imperceptible. The resulting effect is **neutral, imperceptible and long-term**. The effect of noise emissions from the site during the operational phase is **negative, not significant to slight and long-term**.
Landscape & Visual Impact	Construction phase: the impact would be negative but **moderate in significance and short to medium term** in duration. Operational phase: the impact may be perceived as **negative, moderate to slight in significance and long-term** in duration.
Traffic & Transportation	Construction phase: The risk of accidents is not predicted to cause unusual, significant or adverse effects to the existing public road network. The risk of accidents onsite is expected to be low on foot of the use of standard construction practices. Operational Phase: Slight increase in traffic on the local road network during the operational phase.
Waste Management	
Land, Soils & Geology	Construction Phase: It is estimated that c. 10,314. 24 m^3 of excavated soil and stone will be generated, of which c. 973.11 m^3 will need to be removed off-site. The balance will be reused on site. The effect is **long-term, imperceptible and neutral.**

Traffic & Transportation	Traffic-related impacts during the construction and operational phases are predicted to be **short to long-term, imperceptible and neutral.**
Biodiversity	
Water	The effect is predicted to be **long-term, imperceptible** and **neutral**.
Noise & Vibration	The effect is predicted to be **long-term**, **imperceptible** and **neutral.**
Landscape & Visual	Construction Phase: Construction activities will have a **short-term, imperceptible and neutral effect**. Operational Phase: Due to ecological enhancement measures, the Overall Project will result in **a long-term, imperceptible and neutral interaction** with biodiversity.
Air Quality	Construction Phase: Residual impacts will be **short-term and imperceptibly negative**. Operational Phase: Residual impacts will be **long-term, negative and slight.**
Climate	Construction Phase: Residual impacts will be **short-term and imperceptibly negative**. Operational Phase: Residual impacts will be **long-term, negative and slight.**
Traffic & Transportation	
Air Quality	Construction Phase: **Temporary** in duration and **insignificant**. Operational Phase: **Long-term** and **imperceptible**.
Human Health	Construction Stage: The risks of accidents associated with the proposed development are not predicted to cause unusual, significant or adverse effects to the existing public road network. The risks of accidents onsite would be low on foot of the use of standard construction practices. Operational Stage: There will be a slight increase in traffic on the local road network.

7.27. Reasoned Conclusions

7.27.1. Having regard to the examination of environmental information provided in respect of the proposed development, in particular the EIAR and the supplementary information provided by the applicant, the submissions from the planning authority, prescribed bodies and third parties in the course of the application, it is considered that the main significant, direct, indirect and cumulative effects on the environment, with the implementation of proposed mitigation measures are:

- Climate

7.27.2. In the absence of mitigation, the proposed development and overall project has the potential to release significant quantities of GHG emissions, mainly associated with the operation of the gas engines and backup generators. Appropriate mitigation measures have been identified for the construction and operational phases of the proposed development. Subject to the implementation of these measures, the residual impact on climate from the construction phase will be short-term and imperceptibly negative and for the operational phase will be long-term, negative and minor adverse.

- Landscape and Visual Impact

7.27.3. The proposed development will alter the long-term character of this undeveloped site through the introduction of a 3-storey data centre and associated OSPG. The visual impact of the proposed development will range from imperceptible to significant depending on the view of the site.

7.27.4. The visual impact will be significant in views of the site from the Nangor Road and at the entrance to Profile Park Business Park. The design of the building has sought to minimise its impact through the omission of the hot air plenum towers from the Nangor Road elevation of the data centre, the inclusion of a green wall and additional native tree planting to the front of the OSPG compound and the grouping of the generator flues within the compound. The design of the development will reflect other existing and permitted developments in the immediate vicinity of the site.

7.27.5. Site landscaping measures will also assist in integrating and screening the proposed development within the landscape and will increase the biodiversity of the site, which is a long-term, positive and significant effect.

7.27.6. In conclusion, having regard to the identified significant impacts, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation measures outlined in the EIAR and any recommended conditions.

7.28. Appropriate Assessment (AA): Screening Determination

7.28.1. 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 uncertainty exists in relation to the significance of potential effects on South Dublin Bay and River Tolka Estuary SPA on foot of the proposed development. As such, I consider that this matter requires further detailed assessment under a Stage 2 Appropriate Assessment.

7.29. Appropriate Assessment

7.29.1. The qualifying interests and conservation objectives for **South Dublin Bay and River Tolka Estuary SPA** are set out in Appendix 2 of this report. The appeal site is not located within or directly adjacent to this Natura 2000 site, and as such, there is no potential for direct impacts to occur on foot of the proposed development.

7.29.2. In considering the potential for **indirect impacts** to occur, I note there is potential for runoff of pollutants/sediments during the construction phase including suspended solids, cementitious materials, silt and hydrocarbon leaks or spills. Should hydrocarbons enter the river network, there is potential that the chemical balance of the river network could change, which could be toxic for fish and other wildlife. This may also result in decreased food availability, which could indirectly affect designated bird species by impacting their food supply.

7.29.3. It is considered highly unlikely that construction work pollutants could impact on the water quality of the SPA given the localised nature of the construction works, that there will be no direct discharge of surface water or groundwater and the separation distance arising (c. 27 km downstream).

7.29.4. Taking a precautionary approach, the following mitigation measures are proposed during the **construction stage** of the project:

- Sediment control measures will be put in place to prevent suspended solids in runoff from entering the drainage network bordering the site and ensure works are in line with IFI Guidelines.
- Construction works will be undertaken in accordance with an approved CEMP.
- Weather conditions will be considered when planning construction activities to minimise risk of runoff.
- All materials to be stored at the main compound and only transported to the works zone immediately prior to construction.
- Any chemicals/oils stored on site will be placed in a bund on an area of hardstanding.
- All bunds will have the capacity of the largest tank volume plus a min. of 10% with additional capacity to hold 30 mm rainfall.
- All construction equipment will be checked to avoid leaks of oil, fuel, hydraulic fluids and grease.
- Preventative maintenance logs will be kept on site for all plant and equipment.
- Excavations will be left open for minimal periods to avoid acting as a conduit for surface water flows.
- Pouring of concrete only in dry weather and no washout of concrete trucks permitted.
- Any spills of cementitious material will be cleaned up immediately.
- All drainage from bund areas will be directed to secure containment prior to suitable disposal.
- Fuel delivered on site by dedicated tanker or in a delivery bowser; step-by-step refuelling procedure communicated to all employees; careful handling to avoid spillages and secured to prevent vandalism.

- Vehicle or equipment maintenance work will be carried out in a designated area on site. In the event refuelling is required outside of this area, a spill tray will be used during the refuelling operation.
- No surface water runoff will be discharged onto public roads, foul sewers or adjacent property.
- No discharges to the surface water drainage system will be made at the site until all drains are fully connected to the proposed and approved petrol interceptor.
- Measures will be implemented to minimise waste and ensure correct handling, storage and disposal.
- Emergency procedures used in the event of accidental release or spill of potentially contaminating substances will be communicated to all relevant site staff:
    - adequate spill kits maintained on site
    - any spillage of cementitious materials will be cleaned up immediately,
    - all contractors trained in the use of spill kits,
    - any sediments impacted by contamination will be excavated and stored in appropriate sealed containers for disposal offsite in accordance with all relevant waste management legislation.

7.29.5. Subject to the implementation of these mitigation measures, there will be no adverse effects on water quality to the nearby watercourses. As such, the construction of the proposed development will not cause any adverse effects to the surface water drainage network or the qualifying species of South Dublin Bay and River Tolka SPA.

7.29.6. The additional built structures on the site will result in an increase in storm water runoff during the **operational phase** of the proposed development. An approved petrol interceptor, attenuation pond and hydrobrake will be used in the proposed drainage system, and as such, it is not considered that the proposed development will have any adverse effect on water quality within the Baldonnelll Stream, the

Griffeen River or further downstream. The foul drainage will connect into the existing infrastructure within Profile Park.

7.29.7. The development includes on-site diesel fuel tanks which will be installed and used in the event the gas supply from the proposed development is compromised. These tanks will be double skinned and have a minimum of 10% additional capacity. The tanks will be stored on an area of hardstanding and protected by a wall. A dedicated refuelling point for these tanks will be located in an area of hardstanding and all relevant personnel will be trained in the prevention and control of spillages. Spill kits will be located at various locations around the facility.

7.29.8. Subject to the implementation of these mitigation measures, no adverse effects on the integrity, designated habitats or species of the South Dublin Bay and River Tolka SPA or any other Natura 2000 site will occur as result of the operational phase of the proposed development.

7.29.9. In considering the potential for **in-combination** impacts to occur on foot of the proposed development, I note that the applicant's NIS confirms the identified mitigation measures include potential in-combination effects between the Proposed Development and the Permitted Development and that no such impacts will occur. Having regard to the planning applications in the vicinity of the site identified in the NIS and the additional applications identified in Section 4.0 of this report, I consider that no in-combination effects would occur on any qualifying habitats or species designated under the Natura 2000 network on foot of these projects given that each of these was also subject to appropriate assessment screening / appropriate assessment and no significant effects on any Natura 2000 site were deemed likely to occur. I also note that the South Dublin County Development Plan 2022-2028 was subject to a Stage 2 AA, which concluded that the plan will not adversely affect the integrity of any European site, either alone, or in combination with other plans or projects.

7.29.10. Having regard to the foregoing, I consider it reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of

South Dublin Bay and River Tolka Estuary SPA (site code: 004024), or any other European Site, in view of the site's Conservation Objectives.

7.30. **Conclusion**

7.30.1. While I acknowledge the objections which have been raised by the Planning Authority and third parties in relation to the proposed development, I consider that the fuelling of the permitted data centre using a gas-powered onsite power generation compound on a temporary basis would not be unreasonable. The importance of such infrastructure for Irish businesses and the public has been clearly acknowledged and a permission for a data centre development currently exists on the site. While I acknowledge the emissions which would arise on foot of the proposed development, I note that these would not be significant and will remain within emission limit values.

7.30.2. I have considered and reviewed the recommended conditions set out in internal reports of the Planning Authority and the prescribed bodies. I note the Environmental Health Officer has identified 13 no. conditions to be attached should permission be granted for the proposed development. In my opinion, these matters are already covered under the parent permission or can be accounted for by a single condition requiring the preparation of a CEMP for the written agreement of the Planning Authority. I also consider that these matters will be addressed by conditions which require the developer to implement the mitigation measures identified in the EIAR, NIS and EcIA.

7.30.3. The Water Services Department recommends the developer submit a report and drawing showing the location of the site on a CRFAM flood map and clarifying the proposed floor levels relative to the highest known flood level for the site. It is stated that proposed floor levels shall be a min. of 500 mm above this flood level. In my opinion, these matters have already been clarified in the applicant's Flood Risk Assessment, which confirms that the peak water level is c. 74.5 m, with the lowest building finished floor level set at 75.5 m. As such, I am satisfied that a condition is relation to this matter is not required. This Department also requested additional details in relation to SUDS. In my opinion, this matter can be addressed by a general condition which requires the development to comply with the relevant standards of the Planning Authority.

7.30.4. I consider that details of the construction, planting and maintenance of the proposed green wall around the OPPG compound should be agreed in advance with the Parks Department of the Planning Authority. I recommend that this matter be addressed by condition.

8.0 Recommendation

8.1. I recommend that planning permission be granted for the proposed development.

9.0 Reasons and Considerations

9.1. Having regard to the EE (Enterprise and Employment) land use zoning which applies to the site, the existing permission for a data centre development at this location, the nature and scale of the proposed development, comprising modifications to the permitted data centre, and having regard to the nature and scale of existing and permitted developments on neighbouring lands, it is considered that, subject to compliance with the conditions set out below, including the prohibiting of the long-term operation of the on-site power generation compound and the requirement to enter into a Corporate Purchase Power Agreement with a renewable energy provider prior to the operation to the data centre, the proposed development would be acceptable at this location and would have no unacceptable impacts on the environment or property in the vicinity. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

10.0 **Conditions**

1.	The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars received by the Planning Authority on the 21st day of October 2022 and on 14th day of June 2023, 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.	Apart from any departures specifically authorised by this permission, the development shall comply with the conditions of the parent permission (Planning Authority Reg. Ref. SD21A/0186) unless the conditions set out hereunder specify otherwise. This permission shall expire on the same date as the parent permission. **Reason:** In the interest of clarity and to ensure that the overall development is carried out in accordance with the previous permission.
3.	The developer shall pay to the Planning Authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the Planning Authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the Planning Authority and the developer or, in default of such agreement, the

	matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme. **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.
4.	(a) The on-site power generation (OSPG) compound hereby permitted shall operate for a maximum period of 8 years from the date of the commencement of data centre operations, after which time, the OSPG plant shall be decommissioned unless prior to the end of that period, planning permission has been granted for the continuation of the use for a further specified period. (b) The date of commencement of data centre operations shall be confirmed in writing with the Planning Authority. (c) Prior to the decommissioning of the proposed OSPG, the developer shall submit details of the proposed remedial works for this area of the site for the written agreement of the Planning Authority. **Reason:** To enable the planning authority to review the operation of the OSPG at the end of the stated time period, having regard to circumstances then prevailing, and in the interest of site restoration upon cessation of this element of the proposed development.
5.	Prior to the commencement of the operation of the development hereby permitted, the developer shall submit details of a Corporate Purchase Power Agreement that the developer has entered into which demonstrates that the energy consumed on site is offset with new renewable energy generation for the written agreement of the Planning Authority. The Agreement 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, and (c) the new renewable energy generation shall relate to energy that is not being generated at the date of grant of this permission.

	Reason: In the interests of sustainable development.
6.	(a) A Construction and Environmental Management Plan (CEMP) shall be submitted to and agreed in writing with the Planning Authority prior to the commencement of development. The CEMP shall include but not be limited to construction phase controls for dust, noise and vibration, waste management, protection of soils, groundwaters, and surface waters, site housekeeping, emergency response planning, site environmental policy, and project roles and responsibilities. The CEMP shall also include proposals for the proposed decommissioning of the OSPG plant. **Reason:** In the interest of environmental protection.
7.	(a) 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. (b) Prior to the commencement of development, the developer shall submit details of proposed measures for the ongoing maintenance of SUDS infrastructure on the site for the written agreement of the Planning Authority. **Reason:** To prevent flooding and in the interests of sustainable drainage.
8.	Prior to the commencement of development, the developer shall submit full details of the proposed green wall around the OSPG compound including construction details, planting schedules and ongoing maintenance proposals, for the written agreement of the Planning Authority. **Reason:** In the interest of visual amenity and to ensure an appropriate standard of development.
9.	Any instream works that may be required to make connections for surface water discharges shall only be undertaken between 1st July and 30th September inclusive and shall not commence without prior consultation and agreement with Inland Fisheries Ireland.

	Reason: To ensure an appropriate standard of development and to protect the environment.
10.	The mitigation measures contained in the submitted Environmental Impact Assessment Report (EIAR), shall be implemented. **Reason:** To protect the environment.
11.	The mitigation measures contained in the submitted Natura Impact Statement (NIS), shall be implemented. **Reason:** To protect the integrity of European Sites.
12.	The mitigation measures contained in the submitted Ecological Impact Assessment Report (EcIA), shall be implemented. **Reason:** To protect the environment.
13.	Prior to the commencement of development, the developer shall enter into Connection Agreements with Uisce Éireann (Irish Water) to provide for service connections to the public water supply and wastewater collection network. **Reason:** In the interest of public health and to ensure adequate water/wastewater facilities.
14.	Site development and building works shall be carried out only between the hours of 0700 to 1900 Mondays to Friday inclusive, between 0900 to 1300 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority. **Reason:** In order to safeguard the residential amenities of property in the vicinity.

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.

Louise Treacy
Senior Planning Inspector

17th December 2024

Appendix 1: Appropriate Assessment Screening Determination

I have considered the proposed development, comprising amendments to a permitted data centre development and all associated works in light of the requirements of S177U of the Planning and Development Act 2000, as amended. A screening report has been prepared on behalf of the applicant and the objective information presented in that report informs this screening determination.

Description of the Proposed Development

This application seeks to modify a permitted data centre development within Profile Park Business Park, Nangor Road, Dublin 22. The proposed amendments include the provision of an on-site power generation compound which will be fuelled by natural gas to power the permitted data centre until such time as a grid connection is available. I have provided a detailed description of the development in Section 2.0 of my report and detailed specifications of the proposal are provided in the AA screening report, the EIAR and other planning documents provided by the applicant.

A drainage ditch extends along the southern and eastern boundaries of the site. This ditch discharges into the Baldonnelll Stream which adjoins the south-western corner of the site. The Baldonnelll Stream is a tributary to the Griffeen River and flows in a north/north-westerly direction for approx. 1.9 km prior to discharging into the river. The Griffeen River flows in a northerly direction approx. 4.2 km from this convergence point before crossing under the Grand Canal and discharging into the River Liffey, which in turn discharges into Dublin Bay.

European Sites

The subject site is not located within or directly adjacent to any Natura 2000 site, and as such, there is no potential for **direct impacts** to occur. In considering the potential for **indirect impacts** to occur, I note that a total of 4 no. European sites are within the potential zone of influence of the proposed development.

- The site is hydrologically connected to **South Dublin Bay SAC** (site code: 000210) and **South Dublin Bay and River Tolka Estuary SPA** (site code: 004024) via the Baldonnelll Stream which eventually drains into Dublin Bay (both located approx. 15km to the east of the site).

- **North Dublin Bay SAC** (site code: 000206) and **North Bull Island SPA** (site code: 004006) form part of Dublin Bay and are located approx. 19 km north-east of the site.

The applicant included a greater number of European sites within 15km of the development site in their initial screening consideration. I have only included those with any possible ecological connection or pathway in this screening determination.

Although South Dublin Bay SAC is located downstream of the site, it is not considered that this site could be affected by the proposed development given that the Great South Wall separates any water discharging into Dublin Port from the South Dublin Bay Annex I habitats. A similar breakwater in the form of the North Bull Wall protects the North Dublin Bay SAC and North Bull Island SPA from potential pollutants. Thus, given the finding of no significant effects, both of these sites can be screened out from any further assessment.

Although the site is located approx. 27 km upstream of the South Dublin Bay and River Tolka Estuary SPA, the qualifying interest species may utilise the wider river network including the River Liffey and Griffeen River. Should a major pollution event occur during the construction or operational phases of the proposed development and effect the water quality of local watercourses or further downstream in the SPA, this could adversely affect the foraging habitats of the qualifying interest species. Given the hydrological connection between the application site and this Natura 2000 site, in the absence of further analysis, it is not possible to come to a finding of no significant effects and therefore further detailed assessment is required i.e. appropriate assessment.

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 uncertainty exists in relation to the significance of potential effects on South Dublin Bay and River Tolka Estuary SPA on foot of the proposed development. As such, I consider this matter requires further detailed assessment under a Stage 2 Appropriate Assessment.

Appendix 2: Conservation Objectives and Qualifying Interests – South Dublin Bay and River Tolka Estuary SPA

South Dublin Bay and River Tolka Estuary SPA (site code: 004024)	
Qualifying Interests	Light-bellied Brent Goose (Branta bernicla hrota) [A046] Oystercatcher (Haematopus ostralegus) [A130] Ringed Plover (Charadrius hiaticula) [A137] Grey Plover (Pluvialis squatarola) [A141] * proposed to be removed 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] Wetland and Waterbirds [A999]
Conservation Objective(s)	To maintain the favourable conservation condition of Light-bellied Brent Goose. To maintain the favourable conservation condition of Oystercatcher. To maintain the favourable conservation condition of Ringed Plover. To maintain the favourable conservation condition of Knot. To maintain the favourable conservation condition of Sanderling. To maintain the favourable conservation condition of Dunlin. To maintain the favourable conservation condition of Bar-tailed Godwit. To maintain the favourable conservation condition of Redshank. To maintain the favourable conservation condition of Black-headed Gull. To maintain the favourable conservation condition of Roseate Tern. To maintain the favourable conservation condition of Common Tern.

	To maintain the favourable conservation condition of Arctic Tern. To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.