



An Taisce

The National Trust for Ireland

5 Foster Place

Dublin 2, Ireland

D02 V0P9

20240801-06-0164W

South Dublin County Council,
County Hall,
Tallaght,
Dublin 24,
D24 A3XC.

Sent by email to: planningdept@sducoco.ie

1st August 2024

Ref: SD24A/0164W

App: Google Ireland Limited

For: Ten-year planning permission is sought for the expansion of existing Google Ireland Limited operations at Grange Castle Business Park South, Dublin, including the development of a 72,400m² data storage facility which will incorporate data halls with associated support areas, a high voltage compound, offices and staff facilities, a loading area, mechanical and electrical yards, internal and external utilities, security fence and gates, landscaping including acoustic screening, 2 no. stormwater attenuation ponds, additional internal vehicle and pedestrian infrastructure, together with ancillary buildings and site infrastructure. The development also includes the creation of a new active travel thoroughfare connecting Grange Castle Business Park South and Profile Park Road.

Site: Grange Castle Business Park South and Profile Park, Baldonnell, Dublin, D22 X602.

A Chara,

We thank you for referring the above application to An Taisce for comment.

1. Current Context

The annual growth in the storage of electronic data is a major global climate and resource consumption issue. Given the intensity of data centres' energy usage, their development requires the most energy-efficient data storage in an appropriate global distribution of locations. By increasing overall energy demand in Ireland through the uninhibited development of data centres, we are actively diluting the end benefit of renewable energy penetration that has been created and added to the grid over the past few decades.

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This proliferation of data infrastructure has largely gone unchecked, and data centres now consume 21% of Ireland's total metered electricity according to the most recent Central Statistics Office data¹. This is up from 5% in 2015 and represents more electricity use than all urban households in Ireland combined. Between 2022 and 2023 alone, data centre electricity use increased by 20%.

Progress to date in decarbonising Ireland's electricity supply notwithstanding, the increase in data centre projects around the country is entirely inconsistent with national climate and environmental policy objectives. The increase in emissions associated with further data centre expansion is incompatible with the achievement of Ireland's legally binding carbon budgets under the Climate Action and Low Carbon Development Act 2015 (as amended) and our EU emissions and renewable energy obligations and targets.

Overall, the proposal has failed to demonstrate compatibility with Ireland's legally binding emissions reduction obligations. Therefore, the granting of development consent would further compromise our ability to achieve compliance with our carbon budget limits and would put additional pressure on renewables capacity to deal with the significant additional power demand.

We note the letter from the applicant to the EPA regarding the decrease and offsetting of fossil fuel energy use, as part of condition 7.2.2 of Industrial Emissions Licence P.1189-01, which states that the applicant is targeting net-zero emissions across their operations and value chain by 2030. However, we would highlight that the applicant has stated elsewhere that its data centres have driven a 48% increase in its overall emissions in 2023 compared with 2019.² This has been largely driven by AI products and jeopardises the applicant's emissions reduction aspirations as well as Ireland's own legally binding carbon budgets and sectoral emissions ceiling obligations.

2. Emissions Impact

We submit that a sufficiently rigorous assessment of the direct, indirect and cumulative effects of the proposed development on energy demand and on the climate, in line with the obligations of the EIA Directive 2014/52/EU, has not been completed in the EIAR.

Section 8.4.4.2 of the EIAR states that the emissions from the proposal's power use will be 224,250 tonnes of CO₂eq per year, or .44% increase in Ireland's annual emissions. It assesses that in the following way:

"In the absence of mitigation, the Proposed Development is predicted to result in Adverse, Moderate effects in EIA terms during the Operational Phase in the absence of mitigation based on the criteria provided in Table 8.10. The duration of the effects on climate is considered to be Short-Term, as, in accordance with CAP24, 80% of the electricity grid will be renewable by 2030 (DoECC, 2024) thereby significantly reducing carbon emissions."

The applicant goes on to state in section 8.6.2.2 that following mitigation:

"the Proposed Development is expected to have an Indirect Adverse, Minor, Short-Term effect in EIA terms on carbon and climate during its Operational Phase. The longer-term effects are considered Not Significant due to the ongoing transition to grid decarbonisation."

¹ <https://www.cso.ie/en/releasesandpublications/ep/p-dcmec/datacentresmeteredelectricityconsumption2023/keyfindings/>

² <https://www.theguardian.com/technology/article/2024/jul/02/google-ai-emissions>

This increase in emissions has not been assessed against our legally binding commitments under the Climate Action and Low Carbon Development Act 2015 (as amended) (see section 3 of this submission). An increase of .44% in national emissions is entirely incompatible with our obligations to reduce emissions. Also, we consider an increase in national emissions of almost half a percentage point as a result of one singular development to be very significant.

Furthermore, no detailed quantitative analysis appears to have been carried out on the impact of the proposed mitigation measures, so it is unclear how the applicant was able to reach the above conclusion that the residual impacts would be minor and short term. It is also submitted that long-term effects should not be considered insignificant as grid decarbonisation is, as the applicant states, ongoing and still therefore uncertain. Moreover, the more large energy users, like the subject proposal, that come on stream, the more renewable energy capacity will be needed, making achievement of the 80% target and significant grid decarbonisation more uncertain.

2.1 Cumulative Emissions Impact

An Taisce submits that the cumulative impacts of a new data centre on climate needs to be considered in combination with all other recent and proposed data centre developments, regardless of their location in Ireland, as well as against the overall state of compliance with Ireland's legally binding carbon budgets and the emissions ceiling for the electricity sector.

For example, it is reasonable to look at the cumulative impact of an individual data centre on noise in the context of other local proposed/recent developments as noise pollution is only experienced locally. It is, however, unsatisfactory to simply look at the cumulative impact of this data centre on climate within the context of other locally proposed/recent developments. The impact on carbon emissions is not spatially bound to the immediate surrounds of the site, and emissions combine cumulatively with other proposed and recent data centre developments to consistently undermine Ireland's progress towards adherence to. Data centres contributing such a considerable amount of carbon to Ireland's overall greenhouse gas emissions must therefore be assessed on a macro scale and in the context of data on carbon budget adherence (see section 3 of this submission).

We note that the applicant states the following:

"The study area for potential climatic effects due to the Proposed Development differs from other aspects of the EIAR as emissions are compared to sectorial (e.g., transport) GHG emissions and Irish GHG emission targets. As a result, the potential effects on climate are based on the national implications of changes in carbon emissions due to the Proposed Development, considering Ireland's climate commitments and carbon budget. Therefore, the Proposed Development study area encompasses the Republic of Ireland."

This appears to acknowledge the need to assess climate impacts on national scale. However, with regard to cumulative operational phase climate impacts, the applicant states in EIAR section 19.3.4.3 that:

"It is expected that all major industrial facilities which generate significant carbon emissions will be regulated under the GHG permitting regulations. As outlined in Section 8.2.3 of Chapter 8 (Climate), the study area for the climate assessment encompasses the Republic of Ireland as the Project is assessed relative to climate commitments and carbon budget. CAP24 outlines

measures to achieve Ireland's climate commitments and carbon budgets on a national level. CAP24 sets out measures to reduce carbon emissions in electricity, industry, buildings, transport and agriculture to ensure these commitments are reached. On this basis, no significant adverse cumulative effects are likely to arise on climate."

No further analysis is provided there or in Chapter 8. Table 19.1 on Relevant projects for consideration in the cumulative assessments only lists developments in the local area of the site.

We submit that a full cumulative impact assessment has not been adequately conducted by the applicant and fails to provide a rigorous overview of the full range of in-combination effects between data centres and other large energy users nationally. It also does not assess the proposal cumulatively with the electricity sector generally in light of the sectoral emissions ceiling. Given that this proposed facility alone accounts for 224,250 tCO₂eq per year, such assessments are crucial.

2.2 Power Purchase Agreement

We note that it is proposed to offset data centre's energy use with 58MW provided from Tullabeg Solar Farm via a Power Purchase Agreement (PPA). As a preliminary matter, clarification is required on what the PPA is actually intended to offset. Section 8.2.5.3 of the EIAR states the following:

"In Ireland, GIL has signed a 14 year Power Purchase Agreement (PPA) (with the possibility to extend by five years) with Power Capital Renewable Energy for 58 megawatts (MW) of new-to-the grid capacity from the Tullabeg Solar Farm through an existing grid connection. This agreement has allowed the development of a new renewable energy project which was granted planning in 2022 is currently under construction. It will add new renewable energy to the grid that GIL's offices and data centres run on, contributing to the decarbonisation of Ireland's electricity system and of their operations.

GIL's current projections indicate that, once operational, this PPA will help its offices and data centres in Ireland to reach 60% carbon-free energy in 2025 when measured on an hourly basis. At present, GIL matches 100% of its electricity consumption of global operations with purchases of renewable energy on an annual basis. GIL will continue to apply that approach to mitigate carbon emissions generated during the Operational Phase of the development, in accordance with CAP24."

The above states that the PPA is for the applicant's offices and data centres in Ireland – not just this proposed data centre. Clarification is needed on the quantity of the proposed data centre's emissions specifically that the applicant is claiming will be offset by the PPA. It appears that no data is provided in the EIAR to support the stated 60% figure, either generally across the applicant's offices and data centres, or in relation to this specific proposal. If the PPA is already in place, as is implied, it should be clarified whether it accounted for the additional electricity demand of the subject proposal and whether it accounts for planned future development.

Regardless, the use of PPAs exacerbates the issue of data centres diluting renewables penetration into the electricity grid. Data centres with PPAs for renewables are still increasing the overall demand for electricity - the higher the total electricity demand, the more renewable capacity is needed to decarbonise the electricity sector and reach the national target of 80% renewable-generated electricity by 2030.

Furthermore, if new data centres use PPAs to buy renewable power, that renewable energy will simply cover new data centre energy demand rather than dealing with our existing emissions mitigation needs. Unless PPAs are used for *existing* large energy users or industrial developments, which is not

the case here, they are not actually contributing to decarbonisation. Therefore, PPAs such as the one proposed here, actually undermine our efforts to decarbonise. The applicant has not addressed these issues, particularly in the context of our legally binding carbon budgets (see section 3 of this submission), and as such we do not consider this to be an adequate mitigation measure.

2.3 District Heating

Section 8.5.2.3 of the EIAR states the following as a mitigation measure for the operational phase indirect emissions impact:

"The Proposed Development includes measures to facilitate district heating where excess heat is produced, in accordance with CAP24 and the SDCC CAP. This system has the potential to deliver heat for both space heating and water heating needs to nearby buildings through a network of insulated underground pipelines. This system will be realised once suitable offtakers are available."

Details of the technical measures to facilitate a district heating connection are discussed elsewhere, however, it is submitted that further information should be sought on the feasibility of such a connection with regard to existing infrastructure in the area. Analysis is also needed on the potential emissions impact of connecting the proposal to a district heating – this was not provided. Furthermore, it does not appear that suitable offtakers to use the waste heat are available yet, and it is unclear if they ever will be. The uncertainty regarding the feasibility and the availability suitable offtakers means this should not be considered to be an adequate mitigation measure for the operational phase emissions impact.

3. Climate Legal Obligations

3.1 Section 15 Obligations

We would highlight Section 15 of the Climate Action and Low Carbon Development Act 2015 (as amended) (hereafter referred to as the Climate Act) regarding obligations on relevant bodies, of which South Dublin County Council is one:

"15(1) A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

- (a) the most recent approved climate action plan,*
- (b) the most recent approved national long term climate action strategy,*
- (c) the most recent approved national adaptation framework and approved sectoral adaptation plans,*
- (d) the furtherance of the national climate objective, and*
- (e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State."*

Given that Climate Action Plans are bound by the carbon budgets and sectoral emissions ceilings, per s.15(1) of the Climate Act, the Council is also bound to the objectives of the carbon budgets and sectoral ceilings in its decision making, including in planning matters.

3.2 Carbon Budgets and Sectoral Emissions Ceilings

On time compliance with the carbon budgets and corresponding sectoral emissions ceilings, 295Mt for 2021-2025 and 200Mt for 2026-2030 (and then subsequent budgets) based on a 2018 baseline, is **legally binding** per the Climate Act.

We note that an assessment of the climate impacts of the subject proposal against the legally binding carbon budgets and the sectoral emissions ceiling for electricity has not been conducted by the applicant. Therefore, they have not demonstrated that the proposal is aligned with the budgets, the Climate Action Plan 2024, the national climate objective, etc. These objectives cannot be reconciled with the high energy demands of data centres; the associated emissions of GHGs; and their dilution of past, current and future renewables penetration on the electricity grid.

We would highlight that the EPA GHG Projections Report 2022-2050³ already emphasises that Ireland is projected to exceed its carbon budgets, which raises serious concerns about introducing further new energy-intensive data centre facilities, thereby exacerbating an already existing overshoot of the carbon budget:

"For Budget period 1 the latest EPA projections show that this is projected to be exceeded by 26 Mt CO2 eq in the WEM scenario and 19 Mt CO2 eq in the WAM scenario. Based on this assessment, Budget 2 from 2026- 2030 is projected to be exceeded by 109 Mt CO2 eq in the WEM scenario and by 67 Mt CO2 eq in the WAM scenario. Budget 3 from 2031-2035 is projected to be exceeded by 143 Mt CO2 eq in the WEM scenario and by 86 Mt CO2 eq in the WAM scenario.

It is an obligation under the Climate Act that, where the total greenhouse gas emissions for a preceding budget period exceed the carbon budget for that period, the excess greenhouse gas emissions from the preceding budget period is carried forward to the next period. The carbon budget for the next period is then decreased by the amount carried forward.

Using the projections presented for Budget 1 from 2021-2025, Budget 2 from 2026-2030 would decrease by 26 Mt CO2 eq in the WEM scenario to 174 Mt CO2 eq, and decrease by 19 Mt CO2 eq in the WAM scenario to 181 Mt CO2 eq. With this carryover, Budget 2 is projected to be exceeded by 135 Mt CO2 eq in the WEM scenario and by 85 Mt CO2 eq in the WAM scenario. Consequently, far higher emissions reductions will be needed in order to comply with Budget periods 2 and 3."

Furthermore, An Taisce's analysis shows that Ireland's carbon budgeting situation is even further off track than the EPA Projections Report indicates as the EPA has not factored in the need for any budget exceedances to be carried over to the next budget period as required by s.6(D)(5) of the Climate Act. These projected exceedances from the first carbon budget period (2021-2025) will ensure that the second carbon budget period (2026-2030) and the third carbon budget period (2031-2035) must be more stringent.

While the applicant briefly acknowledges the projected budget exceedances in Chapter 8 of the EIAR, there does not appear to be any analysis of how the subject proposal will impact Ireland's ability to stay within the increasingly tight budgets and the sectoral ceiling for electricity.

³ <https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/EPA-GHG-Projections-Report-2022-2050-May24--v2.pdf>

Therefore, granting development consent for the subject proposal, on its own terms and when considered cumulatively with the high concentration of other data centres, would greatly risk Ireland's ability to meet carbon budget and sectoral emissions ceiling obligations for the electricity sector.

We would also highlight that any participation in the EU Emissions Trading Scheme and the purchase of the associated emissions permits relates to mitigation obligations under EU climate law. This does not negate, prevent or act in place of the obligations under the national carbon budgets and sectoral emissions ceilings in accordance with the Climate Act, which covers both the ETS and non-ETS sectors.

4. Government Statement on Data Centres

The applicant relies on the Government Statement on the Role of Data Centres in Ireland's Enterprise Strategy⁴ as a key justification for and a policy under which they are making the proposal. Despite being repeatedly utilised as a basis, framework and justification for further data centre development, including in the subject case, the Statement was never subject to Strategic Environmental Assessment (SEA) per EU Directive 2001/42/EC. To An Taisce's knowledge no SEA screening was conducted.

We consider that the content of the Statement likely constitutes the setting a framework for future development consent of projects listed in Annexes I and II to the EIA Directive. Indeed, the Statement's Principles for Sustainable Data Centre Development are described as "*A set of national principles that should inform and guide decisions on future data centre development.*" Therefore, because it has not undergone SEA or SEA screening, we submit that the Statement and the content therein cannot be used as a framework or criteria to justify or permit development. Furthermore, given the significant and wide-ranging climate and environmental implications of data centre development, it is submitted the Statement falls within the ambit of the Aarhus Convention and should have been subject to public consultation, which, as far as An Taisce is aware, it was not.

It should be noted that the CJEU has generally taken a broad approach to the interpretation and application of the various aspects of the SEA Directive.

Additionally, we would highlight a quote from the Statement which in fact acknowledges the need limit to further data centre expansion:

"The capacity constraints experienced by our electricity system today, and the binding carbon budgets that require rapid decarbonisation of energy use across all sectors, necessarily mean that not all existing demand for data centre development can be accommodated."

5. Grid Capacity

The subject proposal will put great pressure on an already strained electricity grid in the Dublin region, particularly in light of the large number of existing and proposed data centres already in the area. In recent years, the Commission for the Regulation of Utilities (CRU) and EirGrid have both expressed serious concerns regarding data centre energy use and the implications for Ireland's energy security. The CRU went so far as to warn of the possibility of rolling blackouts due to data centre energy

⁴ <https://enterprise.gov.ie/en/publications/publication-files/government-statement-on-the-role-of-data-centres-in-irelands-enterprise-strategy.pdf>

demand in particularly grid-constrained areas. The capacity of the grid to absorb yet another large energy user must be fully assessed.

6. Water

Due to the impacts of climate change, Ireland is becoming a country increasingly at risk of water scarcity. It is of note that during periods of low rainfall or drought, the surrounding air temperature is generally warm/hot meaning that data centres will require a higher level of cooling functionality despite water resources being at lower levels. It is therefore imperative that the proposed water consumption levels are assessed against up-to-date climate modelling and forecasting with regard to the increasing likelihood of significant future water shortages. The EIAR must evaluate potential impacts when water supplies are low. Water use must also be assessed cumulatively with other large-scale users in the whole water supply catchment.

We also submit that the proposal should be assessed against **Article 4** of the WFD to determine whether the project may cause a deterioration of the status of a surface or ground water body or if it may jeopardise the attainment of good surface or ground water status or of good ecological potential and good surface or ground water chemical status.

Please acknowledge our submission and advise us of any decision made.

Is mise le meas,

Seán O'Callaghan
Planning Officer
An Taisce – The National Trust for Ireland

An Taisce The National Trust for Ireland
5, Foster Place
Dublin 2

Date: 01-Aug-2024

Dear Sir/Madam,

Register Ref: SD24A/0164W
Development: Ten-year planning permission is sought for the expansion of existing Google Ireland Limited operations at Grange Castle Business Park South, Dublin, including the development of a 72, 400m² data storage facility which will incorporate data halls with associated support areas, a high voltage compound, offices and staff facilities, a loading area, mechanical and electrical yards, internal and external utilities, security fence and gates, landscaping including acoustic screening, 2 no. stormwater attenuation ponds, additional internal vehicle and pedestrian infrastructure, together with ancillary buildings and site infrastructure. The development also includes the creation of a new active travel thoroughfare connecting Grange Castle Business Park South and Profile Park Road.
Location: Grange Castle Business Park South and Profile Park, , Baldonnell, Dublin, D22 X602
Applicant: Google Ireland Limited
Application Type: Permission
Date Rec'd: 28-Jun-2024

I wish to acknowledge receipt of your submission in connection with the above planning application. The contents of your submission will be brought to the attention of the Planning Officer during the course of consideration of this application.

This is an important document. You will be required to produce this document to An Bord Pleanála if you wish to appeal the decision of the Council when it is made. You will be informed of the decision in due course. Please be advised that all current applications are available for inspection at the public counter and on the Council's Website, www.sdblincoco.ie.

Please note: If you make a submission in respect of a planning application, the Council is obliged to make that document publicly available for inspection as soon as possible after receipt. Submissions are made available on the planning file at the Planning Department's public counter and with the exception of those of a personal nature, are also published on the Council's website along with the full contents of a planning application.

Yours faithfully,

Lorraine O'Neill
for **Senior Planner**