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For a fossil free future for Ireland

Data centre Submission FW23A/0184

<https://planning.agileapplications.ie/fingal/application-details/95342>

Planning Section,
Fingal County Council
County Hall
Main Street
Swords
Co Dublin

Planning Application Reference Number: FW23A/0184

Applicant: Servecentric

Location: Plot 3, Old Corduff Road, Blanchardstown Corporate Park 2, Ballycoolin, Dublin 15

Description:

"Data Centre - Servecentric intends to apply for permission for development to amend a previously permitted scheme (Reg. Ref. FW22A/0038) at this c. 0.76 ha site known as Plot 3, Old Corduff Road, Blanchardstown Corporate Park 2, Ballycoolin, Dublin 15.

The development will consist of the change of use of the permitted warehouse/logistics unit to a data centre,

including: a minor increase in site area (c. 42 sq m); the reduction in floor area at ground floor level (c. 360 sq m); the provision of a double height delivery bay at ground floor level; the provision of a first-floor level mezzanine (c. 2,574 sq m) to include data storage floorspace and ancillary uses; the increase in floor area of the ancillary office at ground and first floor level (c. 340 sq m); the provision of a plant floor level (c. 377 sq m) located above the ancillary office floorspace; the provision of air handling units (AHU), variable refrigerant flow (VRF) condenser units and solar panels at roof level; revisions to the staircore and lift arrangements of the ancillary office at ground floor and first floor level and the provision of a stairwell extending to the plant floor level and roof level; the provision of 2 No. staircores located to the north-east and south-west of the building; the provision of a medium voltage transformer enclosure adjoining the south-east building elevation at ground floor level and all associated alterations to the north-east, south-east and south-west building elevations (The maximum building height permitted under Reg. Ref. FW22A/0038 will decrease from c. 16.9m to c. 14.5m. The gross floor area of the

previously permitted building will increase by c. 2,931 sq m to c. 6,524 sq m primarily due to the inclusion of the first-floor level mezzanine).

The development will also include: modifications to the HGV service yard to include the provision of enclosed bio-diesel (HVO) standby generators, 2 No. flue stacks (c. 19m in height), a sprinkler tank and a pump house; minor alterations to the permitted car parking areas, resulting in a total of 36 No. car parking spaces (an increase of 1 No. car parking space), including 4 No. electric vehicle (EV) spaces and 2 No. accessible spaces; increase in the bicycle parking provision (64 No. short and long terms spaces in total); provision of 4 No. motorcycle spaces; the provision of a 2m shared pedestrian and cyclist pathway linking the Old Corduff Road to the adjoining lands to the south-east, including associated access gates, site lighting, boundary treatments and landscaping; the provision of security gates at the 2 No. permitted vehicular entrances; modifications to landscaping areas and perimeter fencing; relocation of waste management areas and all associated site excavation and development works above and below ground.”

This submission is made on behalf of Not Here Not Anywhere (NHNA), a nationwide, all-volunteer, grassroots, non-partisan group campaigning to end fossil fuel exploration and the development of new fossil fuel infrastructure in Ireland. To avoid the most severe impacts of climate change, global temperatures must be kept below 1.5°C above pre-industrialised levels, and we will need rapid and widespread action to decarbonise our energy systems. Burning fossil fuels is the single biggest cause of climate change, and taking climate action means newly built infrastructure in Ireland must be fossil fuel free. Planning is a key area of influence, and Local Councils have a major role to play in facilitating the transition from fossil fuels to renewable energy. This encompasses processes for carbon-proofing major decisions, programmes, and projects.

Regarding the application to Fingal County Council for the construction of a data centre spanning 6,524 sqm, we make the following recommendations:

- 1. New data centres must be powered entirely by onsite or new off-site renewable energy to avoid increasing Ireland’s carbon dioxide (CO₂) emissions, consistent with Ireland’s Climate Action Plan and commitments under the 2015 Paris Agreement. They must also provide sufficient energy storage (e.g., battery or renewable fuel), rather than fossil fuel-based emergency storage, to account for variation in renewable energy supply.**

We observe no plans to provide for the generation of sufficient renewable energy to compensate for the increased energy demand that the data centre will place on the grid. The applicant should be required to provide its own new renewable energy generation (on or off site).

The application includes plans to run the data centre with onsite bio-diesel generators “as backup only and in case of emergency”. However, it is unclear whether the applicant would be able to source sufficient bio-diesel - which could create a demand for fossil diesel instead. The applicant should therefore clarify that they will not fall back on fossil diesel for their backup generators.. Instead, the applicant should be required to install renewable and clean energy

back-up and storage, for example with battery storage sufficient for any back-up and emergency power generation requirements.

While the application mentions plans for solar panels to contribute renewable energy to the grid, we observe no details on how much of the required energy from the grid these solar panels would be able to compensate for.

The government has acknowledged that “data centres pose considerable challenges to the future planning and operation of Ireland’s power system” (Department of Business, Enterprise and Innovation, 2018). In a recent policy statement, the Irish government admitted that “In the short term, there is only limited capacity for further data centre development” (Department of Enterprise, Trade and Employment, 2022). These challenges include higher electricity costs for consumers (Taylor, 2018). In 2019, the Danish Council on Climate Change recommended that the Danish government legally requires data centre owners and developers to contribute to the infrastructure required to supply the centres with renewable energy, such as wind and solar farms (Irish Examiner, 2019). Polling has shown that the majority of Irish people (59%) believe that data centres should be restricted to achieve climate targets and to reduce strain on the grid (Business Post & REDC, 2021).

The applicant states in the Environmental Impact Assessment Screening Report (EIASR) that they intend to enter into Corporate Power Purchase Agreements (CPPAs) “for the supply of as much renewable electricity as is available in the market”. However, there is no mechanism as part of the permission of the construction of this infrastructure to ensure that the applicant follows through on this weak statement of intent. The applicant should ensure that the additional energy demand from the grid is accounted for through production of new renewable energy from any power purchase agreement/s. It should also be noted that whenever there is a mismatch between data centre energy demand and grid power from renewables, the applicant will be sourcing fossil fuel-based power from the grid, and therefore contribute to increased GHG emissions in Ireland.

The government has recognised that while corporate PPAs can play a role towards achieving decarbonisation of the energy system, increasing demand for PPAs due to data centres could mean constrained capacity for developing new renewable energy infrastructure which contributes to the general grid and private energy consumers (Department of the Environment, Climate & Communications, 2022). This could slow down Ireland’s already delayed transition to renewable energy, and thus again result in the applicant further contributing to the climate crisis.

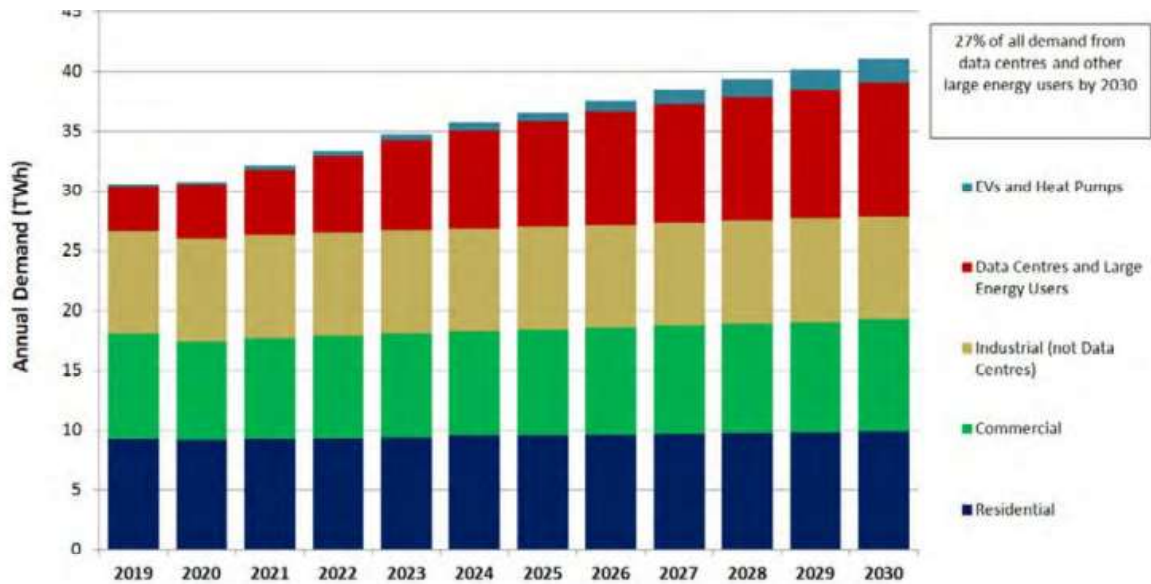
Any PPAs of the applicant should be structured in a way that a) the renewable energy is additional, and has not already been publicly funded through PSO levies b) the renewable energy being procured is located close to the point on the grid where the applicant is consuming energy, to minimise burden on the grid c) should be matched on an hourly basis, so that the renewable energy being produced/procured is for the same time as the energy being drawn from the grid by the applicant (to use at the time or to store for later use). Otherwise, the applicant will be increasing the use of fossil fuels on the grid when renewable supply is low. Any PPAs by the applicant should be rigorously assessed according to the seven principles outlined

in the Renewable Electricity Corporate Power Purchase Agreements Roadmap. (<https://www.gov.ie/pdf/?file=https://assets.gov.ie/220107/ed5977f3-76a4-42c4-b2b7-dd5c4c4d7002.pdf#page=null>)

The 19,000 tonnes of CO₂ per annum to be emitted by the on-site energy centre in question, as indicated by the submitted EIASR, would *increase* Ireland's greenhouse gas (GHG) emissions during a period where, by law, emissions must be reduced by 51% (based on data from the Environmental Protection Agency (2020) indicating that Ireland had total GHG emissions for 2018 of 60.93 million tonnes carbon dioxide equivalent (Mt CO₂e)). Assuming very roughly that Fingal accounts for 1/26 of Ireland's total emissions as one of 26 counties, Fingal's total 2018 emissions would be 2.34 million tonnes of CO₂ equivalent. This would mean that the construction of the proposed data centre would mean an increase in Fingal's annual CO₂ emissions by about 1% to 2030.

The EIASR assumes in its calculations of the project's climate impacts that by 2030, 80% of Ireland's electricity will be generated by renewable energy. However, the Government has made clear that "the electricity sector faces an immense challenge to meet its requirements under the sectoral emissions ceilings" (Government of Ireland, 2022, p.129). There is already a high risk that the target will not be achieved (Business Post, 2023). Indeed, Ireland's CO₂ emissions are continuing to increase rather than decrease, and even if all ambitious measures were implemented, we are likely to still miss required emissions reductions goals by 2030 given the current plan (RTÉ, 2022a). Additionally, the proposed development, along with the other data centres for which permission is being sought, will jeopardise Ireland's goals for renewable generation and decarbonisation further by dramatically increasing demand for electricity. The recent government statement on data centres also acknowledges that "This represents an ambitious goal and any significant increase in electricity demand (such as from additional data centres) would require an increase in the amount of renewable capacity and enabling services to be installed" (Department of Enterprise, Trade and Employment, 2022). Even if there are increased renewables on the grid, if demand increases even faster than the supply of renewables and storage, then fossil fuel use on the electricity grid will go up. Thus, the GHG emissions of the proposed development are likely higher than their calculations.

Eirgrid estimates that data centres could account for up to 27% of Ireland's electricity demand by 2028, and up to 50% of new electricity demand growth (Eirgrid, 2021).



Source: EirGrid, All-Island Generation Capacity Statement 2021-2030

The Irish Academy of Engineering (2019) predicts that data centre development will add at least 1.5 million tonnes to Ireland's carbon emissions by 2030, a 13% increase on current electricity sector emissions, and will require an investment in energy generation and storage of €9 billion by 2027.

For example, if Amazon's eight centre project in Mulhuddart, Dublin 15, is realised, by 2026 it would use c. 4.4% per cent of the State's entire energy capacity, the equivalent of Galway city, but employ only 30 people post-construction, largely in facility maintenance (Lillington, 2018). The Apple data centre proposed for Athenry, Co. Galway, would have ultimately used "over 8% of the national capacity [...], more than the daily entire usage of Dublin", and "would require 144 large diesel generators as back-up" (Climate Home News, 2017).

To meet the GHG emissions targets set out in the 2015 Paris Agreement, and in the recently published Climate Bill, it is paramount that Fingal County Council examines the impact that the energy supply of data centres will have on net emissions. Furthermore, it is crucial that Fingal County Council takes into consideration the **cumulative impact of data centres' energy demand on a nationwide basis**, as opposed to examining impact solely on a case-by-case basis.

2. Where technically possible, heat generated from a data centre should be utilised for district heating systems.

We found no evidence in the application of technology provided for this purpose. Denmark's Ramboll Group (2019) recommends that the large quantities of waste heat generated by data centres should be utilised in district heating systems. Existing technology (such as heat pumps) to capture excess heat should be required and used to increase data centres' energy efficiency.

3. Water usage

The EIASR states “The construction and operation of the scheme will not use such a quantity of potable water to cause concern in relation to significant effects on the environment.” However, we see no indication of what will be used to cool the data centre if not potable water. Will a rainwater harvesting system be used to cool the data centre? This must be clarified to ensure water resources will not be diverted away from the local community, exacerbating water scarcity issues that will become more of a problem and population increases.

A region with ample water today may become water-stressed in 10 to 30 years. We have recently witnessed that protracted periods of temperatures above 26°C with no precipitation are becoming more frequent in Ireland. The UN expects water demand to outpace supply by almost 40% as soon as 2030 (United Nations Environment Programme, 2016). Greater consideration needs to be given to how available resources are going to be used.

4. Risk of blackouts

In the middle of an energy crisis, with Ireland’s electricity grid at risk of failure in winter, large, wasteful energy users like data centres simply cannot be allowed to use any more of the nation’s gas and electricity supplies. Blackouts as a result of pressure from data centres on energy demand is a real risk (The Irish Independent, 2022). With Eirgrid already banning electricity connections for data centres in Dublin and Minister Eamon Ryan calling for a ban on gas connections for data centres, it is evident that this development is not future-proof and goes against the best interests of the country (Business Post, 2022; RTÉ, 2022b)

5. Data centre costs versus benefits

Data centres provide a wide range of services, but are not transparent about the amount of energy used for these different purposes. While some capacity provides essential services to society (enabling public services like health, public transport, remote working, and communications between people), at the other end of the spectrum are services that can be seen as highly wasteful, such as cryptocurrency mining. An independent report into organisational data management also demonstrated that a majority of data stored globally is dark or redundant data, while only 14% was business-critical (Veritas, 2015), meaning that energy used for its storage is essentially wasted.

To make a case for the construction of the data centre, which will create further electricity demand and therefore challenge the realisation of Ireland’s decarbonisation targets, the applicant should provide information about the purpose or their services, and how they will ensure electricity is not wasted on storing dark or redundant data that have huge costs to our energy infrastructure without providing societal or commercial benefits.

Thank you in advance for your consideration.

Kind regards,

Amy Dunnigan

On behalf of
Not Here Not Anywhere

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