

20210330-06-SD21A0042

South Dublin County Council
Planning Section
County Hall
Tallaght
Dublin 24

Sent via email to: pregistry@sdblincoco.ie

30th March 2021

Ref.: SD21A/0042
App: EdgeConneX Ireland Limited
For: Construction of two single storey data centres with associated office and service areas; and three gas powered generation plant buildings with an overall gross floor area of 24,624sq.m that will comprise of the following: Demolition of abandoned single storey dwelling, remaining agricultural shed and derelict former farm building; Construction of 2 single storey data centres (12,797sq.m), both with associated plant at roof level, with 24 standby diesel generators with associated flues (each 25m high) that will be attached to a single storey goods receiving area/store and a single storey office area (2,404sq.m) located to the west of the data centres as well as associated water tower and sprinkler tank and other services; Amendments to the internal access road and omission of access to loading bay permitted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948 that include the relocation of permitted, and new, internal security gates; and new internal access roads to serve the proposed development that will provide access to 39 new car parking spaces (including 4 electric and 2 disabled spaces) and sheltered bicycle parking to serve the new data centres; The development will also include the phased development of 3 two storey gas powered generation plants (9,286sq.m) within three individual buildings and ancillary development to provide power to facilitate the development of the overall site to be located within the south-west part of the overall site. Gas plant 1 (3,045sq.m) will contain 20 generator units (18+2) with associated flues (each 25m high) will facilitate, once operational the decommissioning of the temporary Gas Powered Generation Plant within its open compound as granted under SDCC Planning Ref. SD19A/0042/ABP Ref. PL06S.305948. Gas plant 2 (3,045sq.m) will contain 20 generator units (18+2) with associated flues (each 25m high). and, Gas plant 3 (3,196sq.m) will contain 21

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Directors: Philip Kearney (Chair), Trish O'Connell (Vice-Chair),
Stuart McCaul (Secretary), Aoife O'Gorman (Treasurer), Hugh O'Reilly, John Sweeney

generator units (19+2) with associated flues (each 25m high). These plants will be built to provide power to each data centre, if and, when required. The gas plants will be required as back up power generation once the permitted power connection via the permitted substation is achieved; New attenuation pond to the north of the site; Green walls are proposed on the southern elevation of each power plant, as well as to the northern elevation of the generator compound of the data centres, and enclosing the water tower/pump room compound, and a new hedgerow is proposed linking east and west of the site; Proposed above ground gas installation compound to contain single storey kiosk (93sq.m) and boiler room (44sq.m). The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage. The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948. The site will remain enclosed by landscaping to all boundaries. The development will be accessed off the R120 via the permitted access granted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948. An EPA-Industrial Emissions (IE) licence will be applied for to facilitate the operation of the gas powered generation plant. An Environment Impact Assessment Report (EIAR) has been submitted with this application. All on a site of 22.1hectares.

Site: Ballymakaily, West of Newcastle Road (R120), Lucan, Co. Dublin

To Whom It May Concern,

Thank you for referring the above application to An Taisce for comment. We note that the referral was dated 26th March with a submission deadline of 30th March. It is considered that this is an entirely insufficient amount of time to assess and prepare observations on an EIA-level development, particularly given that this timeframe included a weekend.

Local Authorities and An Bord Pleanála are granting permission for data centres on a case by case basis without adequately addressing the cumulative impacts of energy use. This is a systemic infringement of the Environmental Impact Assessment (EIA) process as defined by the Environmental Impact Assessment Directive, which requires that direct, indirect and cumulative impacts be fully assessed and mitigated.

1. Energy use and contribution to Ireland's greenhouse gas emissions

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 20-30 years. Any new data centre should provide a new, directly linked supply of renewable energy and should not jeopardise Ireland's existing national climate/renewable energy targets.

Existing data centres and those that will be built over next seven years will require 12.5 terawatts of additional power beyond current generation amounts – enough electricity to power 24 million homes¹. Moreover, 2027, data centres are projected to account for 31% of all electricity consumed in Ireland. According to the Irish Academy of Engineers, data centres will add between 1.5 and 3 million tonnes of CO₂ to Ireland's overall greenhouse gas emissions by 2028².

Ireland already hosts an enormous and disproportionate amount of Western Europe's data infrastructure. Therefore, data storage development proposals in Ireland need to be based on appropriate and complete considerations of the direct, indirect and cumulative effects of the development on energy demand and therefore on climate.

1.1 Data centre energy use and emissions

The proposed data centre will ultimately have its electricity supplied by the grid as well as three on-site gas plants when required and on an interim basis until the grid connection is finalised, all giving rise to significant greenhouse gas emissions.

In Chapter 10 of the EIAR on Air Quality and Climate, the applicant has failed to quantify the contribution to Ireland's greenhouse gas emissions (in tonnes of CO₂eq per annum) as a result of both the power drawn from the grid and generated in the gas plants. This should be sought as further information. The greenhouse gas impact of the development's power demand from the national grid must be quantified and its impacts on Ireland's ability to reach binding climate targets must be assessed.

The applicant states that due to the high power demand of the facility, it will require an emissions permit and will form part of the EU Emissions Trading Scheme (ETS), thereby not impacting obligatory reductions in the non-ETS sectors. However, this assessment is insufficient. The increased demand on the grid due to data centres, including the subject proposal, will likely lower the level of renewable power available to the non-ETS sectors, therefore causing Ireland to miss binding targets, both in terms of renewables share and emissions reduction. Furthermore, the emissions of the proposal must also be assessed in relation to other targets such as the 7% annual reduction agreed to in the Programme for Government.

Section 10.66 of the EIAR states that the "*gas generators have the lowest greenhouse gas emission rate of any fossil fuel. Thus no mitigation measures for the gas generators are required.*" It is submitted that this statement is misleading – while natural gas may have the

¹ <https://www.rte.ie/news/business/2020/0109/1105273-what-impact-do-data-centres-have-on-climate/>

² Ibid.

³ <https://dbei.gov.ie/en/Publications/Publication-files/Government-Statement-Data-Centres->

lowest emissions at the point of combustion, when the full lifecycle of the gas is accounted for, its emissions impact can be higher than that of coal. This must be accounted for in the EIAR, and further information should be sought on this point. Furthermore, regardless of the emissions rate in relation to other fossil fuels, the gas generators will nevertheless emit greenhouse gases and this therefore requires mitigation.

Any new data centre development should only be considered, in light of Ireland's climate targets, if its consumption of energy is matched by a similar or greater contribution to Ireland's renewable energy infrastructure. The sustainability and carbon neutrality of any new energy demand development can only be achieved, either by direct renewable power source generation on site or off site with dedicated grid connection, or a dedicated renewable addition to the grid to at least the level of the total annual generating capacity required by the development.

No sufficient mitigation measures were outlined in the EIAR to deal with the carbon impact generated by this development and by heightened fossil energy demand.

Moreover, An Taisce considers the cumulative impact assessment of effects in combination with other developments to be insufficient for the purposes of the EIA Directive and the Climate Action and Low Carbon Development Act 2015. The applicant has wholly failed to assess the greenhouse gas emissions impact in-combination with existing and proposed developments. A quantification of greenhouse gas emissions both from the grid demand and the gas plants is needed to inform this as well.

1.2 EirGrid's policy on data centres

Ireland is experiencing a very significant increase in the number of large data centres seeking to connect to the Irish electricity grid. There is a particular interest in data centre development in the Greater Dublin region, where it is expected that power requirements will rise by c.38% between 2017 and 2025. In EirGrid's Data Centre Connection Offer Process and Policy (June 2019), they note that this increase in demand presents a challenge for the security of electricity supply.

This EirGrid policy, which we would highlight was not subject to Strategic Environmental Assessment, encourages the development of on-site non-renewable energy generation to help support the now insecure grid. Owing to the security of supply issue, which is in large part caused by the uninhibited, unsustainable granting of planning approval for data centres, EirGrid is encouraging the development of on-site energy generation in areas of the grid that are considered *constrained*. This on-site, usually fossil gas powered, electricity generation can then be called upon to support the grid during periods of instability. This is reflected in the Flexible Demand offer for the subject application which requires the development of the gas plants.

In their policy paper EirGrid outline that they:

"will provide firm capacity in constrained areas where a customer undertakes to provide dispatchable generation to reduce the impact that their connection has on that constraint. A clear example of this would be dispatchable generation available to EirGrid for a minimum of 15 hours per day over 5 consecutive days. EirGrid recognises that this may prove difficult for some data centres to achieve. Given this, EirGrid may, in certain circumstances, following an assessment of the constraints in the area within which the data centre intends to connect, permit some firm capacity to be made available for generation with lower availability. Generation must be on the same site and owned by the customer."

This policy objective is undermining Ireland's emissions and renewable energy targets by actively encouraging the development of on-site fossil fuel energy generation. It provides no solution or measures for mitigating the impact of this fossil fuel infrastructure on emissions and renewable energy targets.

Ireland's bid to attract data centres through the Department of Business, Enterprise and Innovation's Government Statement on The Role of Data Centres in Ireland's Enterprise Strategy³ is putting unsustainable pressure on the grid. As exemplified by the EirGrid policy paper, the only proposed way to compensate for any shortfall in electricity supply caused by the rapid development of data centres in the Greater Dublin region is through greater development of on-site power generation, primarily through fossil gas.

This means that now tied to the development of data centres is the development of non-renewable energy infrastructure. This in itself is not a sustainable solution to the issue. It encourages a continued reliance on on-site gas infrastructure for energy provision.

2. Operational phase impacts on water supply

Section 8.64 of the EIAR states that: *"the Proposed Development will result in an increased demand for water of c. 7.4 m³/day (average 0.086 l/s)"*. This will be sourced from the mains supply. The applicant notes that Irish Water has confirmed that there is adequate capacity to facilitate operational requirements in the existing network confirmation from Irish Water that capacity for this level is available is required. This should be determined prior to any decision being made.

3. Grid connection

This application (see EIAR section 2.28, 2.40, etc.) leaves the issue of the grid connection unresolved and subject to a separate application. An Taisce considers this to be in contravention of the decision in *O'Grianna & Ors. v. An Bord Pleanála* [2014] IEHC 632, which determined that an energy development that included a grid connection required integrated assessment between the energy installation and the grid connection. While the *O'Grianna* judgment applied to an energy *generation* installation, in that case a wind farm, the same principle applies to the grid connection for an energy *consuming* installation.

³ <https://dbei.gov.ie/en/Publications/Publication-files/Government-Statement-Data-Centres-Enterprise-Strategy.pdf>

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

Yours sincerely,

Phoebe Duvall

*Planning and Environmental Policy Officer
An Taisce – The National Trust for Ireland*