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For a fossil free future for Ireland
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Planning Section,
Clare County Council,
New Road,
Ennis

Planning Application Reference Number: 21757
Applicant: Art Data Centres Ltd
Location: Tooreen, Cahernalough, Knockanean, Ballymacahill, Muckinish and Rosslevan, Tulla Road, Ennis, Co Clare
Description: *"a permission of 10 years in duration is sought. The application site has a total of c. 60 hectares with a nett area for development of c. 45 hectares, and is bound to the south by R352 (Tulla Road), to the east and the north by agriculture land, to the west by the M18. The demolition of an existing single storey with pitched roof farm dwelling house together with 8 No. farm outbuildings on the overall site. The construction of 6 No. two storey data centre buildings with three storey plant/office levels and associated ancillary development that will have a combined gross floor area of 118,740 sqm. These data halls are maximum 19m high and will consist of the data halls and air handling units and offices and ancillary plant and support. Each of the six data centre buildings will include data halls, associated electrical and mechanical plant rooms, loading bays, maintenance and storage spaces, office administration areas, pump rooms, water storage tanks, and plant, as well as backup (standby) generators (11 No. per building) for emergency use only situated along one elevation of each building. The standby diesel generators will have associated 8 m high flues. Each generator will also include local diesel storage tanks with a single refuelling area to serve the proposed emergency generators. A gas powered energy centre and Above Ground Installation (AGI)4,674 sqm in size . The energy centre will primarily comprise 18 no. lean-burn natural gas engines, 2 No. pump rooms, and fuel storage compound. Each generator will have its own flue of 25m height. The energy centre and buildings*

within the compound will be 12 m high, single storey with mezzanine level. The buildings will house ancillary office, welfare facilities and associated parking. A two storey Vertical Farm Building. The vertical farm will be c. 2,430 sqm and 12m high. It will comprise c. service area of 1,444 sqm, handling area of 844 sqm and ancillary areas. Please see newspaper notice for full development description"

This submission is made on behalf of Not Here Not Anywhere (NHNA), a nationwide, 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 deep action to decarbonise our energy and agricultural 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 free.

Planning is a key area of influence, and county councils have a major role in establishing the transition from fossil fuels to renewable energy. This encompasses processes for carbon-proofing major decisions, programmes and projects.

For Clare County Council, deciding whether or not to grant planning permission for this data centre will likely be one of the most important decisions for the next ten years regarding Clare's greenhouse gas emissions. The proposed data centre and associated gas energy centre will generate huge amounts of CO^2 equivalent emissions in the context of Clare's size and population.

Regarding the application (no. 21757) to Clare County Council for the construction of a data centre spanning 118,740 sqm, we make the following observations:

1. **The data centre must be powered entirely by onsite or new off site renewable energy in order to reduce, rather than increase Ireland's CO^2 emissions, consistent with the Climate Action Plan, Climate Act and commitments under the Paris Agreement.**

This planning application features a gas powered "energy centre" as well as diesel backup generators, which will result in fossil fuels being used to both power the data centre and act as a back-up energy source. We observe no plans to provide for the generation of renewable energy to compensate for the increased energy demand which the data centre will place on the grid.

The **657,000 tonnes of CO^2 per annum** to be emitted by the on-site gas energy centre per the submitted EIAR would *increase* Ireland's greenhouse gas emissions by nearly 1% of 2018 emissions. This is based on the EPA (2020) figure of 60.93 million tonnes carbon dioxide equivalent (Mt CO^2eq) for 2018. This 1% increase generated from one data centre would occur during a period where by law emissions must be reduced by 51% in accordance with the Climate Act.

Furthermore, looking solely at County Clare for which the Council is responsible: assuming that Clare's share of national emissions aligns with its share of the population based on Census 2016 figures (118,817 people in Clare, divided by 4,761,865 people in the country) **Clare's total 2018 emissions would be 1.53 million tonnes of CO^2 equivalent. This would mean that the construction of the proposed data centre would increase Clare's CO^2 equivalent emissions by 43% compared to 2018 levels.**

For Clare to reduce its CO^2 emissions by 51% overall to 2030 compared to 2018 levels while constructing this data centre, emissions from other sources (including agriculture) would need to fall by 93%.[1]

As the data centre is not proposed to be powered by renewable energy, and thus will result in an increase in Ireland and Clare's greenhouse gas emissions between now and 2030 contravening the Climate Act and Climate Action Plan, permission for the development should be refused.

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.

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[1] Using the population estimated figure for Clare's 2018 emissions of 1,531,571 tonnes CO^2eq, a reduction of 51% to 2030 allows for remaining emissions of 750,469 tonnes CO^2eq.

The data centre alone will emit 657,000 tonnes CO^2eq by 2029 of this 750,469 tonnes, leaving 93,469 tonnes of allowed emissions under the 51% target. Therefore 2018 emissions of 1,531,571 tonnes CO^2eq will have to be reduced to 93,469 tonnes, or 6.1% of the 2018 total.

To accommodate the data centre and reduce Clare's total CO^2eq emissions by 51% to 2030, 93.9% of 2018 emissions will need to be eliminated.

3. **Water usage**

The predicted peak demand of water usage for the data centre stands at around 1,000,000 litres of water per day according to the submitted EIAR. This amounts to just less than half of the total water demand for Ennis (2,425,000 litres per day based on a conservative estimate of 100 litres per person per day on average).

Cooling the data centre will divert a valuable resource away from the local community, a situation which is likely to get worse as water scarcity becomes more of a problem and population increases.

Rainwater collection cannot be relied upon, due to uneven patterns of precipitation which will become even more erratic as the climate changes. 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.

It would be unacceptable to residents in Ennis and Clare for a data centre to have ample water supply for cooling during a period of drought in the summer, which is when water usage for cooling the data centre is likely to reach its peak.

The UN expects water demand to outpace supply by almost 40% as soon as 2030. Greater consideration needs to be given to how available resources are going to be used.

Conclusion

To meet the greenhouse gas emissions targets set out in the Paris Agreement, and in the newly published Climate Act, it is paramount that Clare County Council examine the impact that energy supply of data centres, here the gas energy centre, will have on net emissions. **This data centre will increase Clare's CO2 equivalent emissions by approximately 43%. Unless the application is altered to provide 100% renewable power to avoid these emissions, permission must be refused.**

Thank you in advance for your consideration.

Regards,

B. Thiemt

Britta Thiemt
On behalf of Not Here Not Anywhere

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