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Wicklow County Council,
Planning Department,
County Buildings,
Whitegates,
Wicklow Town,
A67 FW96

Sent electronically:
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20.09.18

Ref: **18/940**
App: **Crag Digital Avoca Ltd**
For: **Demolition of buildings & structures on site & construction of Data Storage Facility comprising 3 data storage buildings & all assoc site infrastructure: data storage facility 1 (6 Pod Data Centre) located to north of site served by 1 gas generator compound to south of Data Storage building including 5 flues & 2 bunded fuel tanks located to south east & south west of Data Storage building & powered by (-part grid / - part gas) with emergency diesel fuel backup. Data storage facility 2 (8 pod data centre) located to south of Data Storage Facility 1 served by 1 gas generator compound to the south of building incl 6 flues & 2 bunded fuel tanks located to south east & south west of Data Storage building & powered by (-part grid / -part gas) with emergency diesel fuel backup. Data storage 3 (8 pod data centre) located to south of site served by 1 diesel generator compound to north of building incl 8 flues & 2 bunded fuel tanks, located to north east & north west of Data Storage building & powered by grid. …**
Site: **Avoca River Park, Shelton Abbey & Kilbride, Arklow, Co. Wicklow**

Dear Sir/Madam,

Thank you for referring the above application to An Taisce for comment.

General Considerations

The annual growth in the storage of electronic data is a major global climate and resource consumption issue. It requires development of the most energy efficient data storage in an appropriate global distribution of locations. Ireland needs to set international leadership in energy efficiency and using zero carbon energy as the IDA is promoting Ireland as a global centre for data storage.

Mitigation is required of the climate emissions arising from the electricity use required by the proposed data centre to meet:

1. The objectives of the **Climate and Low Carbon Development Act 2015** which incorporates the principle of "Climate Justice".

2. The provisions of DoECLG **Planning Policy Statement 2015** which state:

"*The planning process plays a very significant role in promoting patterns of development which help Ireland meet its international obligations by:*

- *tackling the sources of climate change by reducing Ireland's carbon footprint;*
- *securing less energy and travel intensive development patterns;*
- *facilitating the generation of energy from low carbon sources; and*
- *adapting to the effects of climate change*."

3. The **equitable per capita carbon budget for a developed country** - aim for below the 2 degrees target and as close as possible to the 1.5 degree target in the 2015 Paris Agreement. This requires much more ambitious targets than those in place for 2020 or proposed by the EU for 2030.

The net emission reduction benefit of Ireland's 2020 target of 40% renewable electricity generation is being undermined by rising energy demand , as the effectiveness of a percentage based target is diminished by rising consumption, including the increasing development of Data Centres.

Chapter 3 of the 2015 Eirgrid Grid 25 Consultation in justifying continued grid expansion including the Meath Monaghan to Northern Ireland 400KV pylons interconnector stated:

"*Electricity demand in Ireland has closely matched recent economic volatility. Following a 7.1% fall in demand between 2008 and 2012, electricity demand grew once again in 2013 by 1.1%. This was in line with an increase of 3.4% of Ireland's Gross National Product. The demand for electricity is now expected to grow on average by 1.3% per annum from now to 2025*."

In March 2016 the EPA published a report predicting that Ireland's EU combined non- Emission trading Scheme (ETS) sectors namely agriculture, transport, residential, commercial, and waste are projected to be only 6 - 11% below 2005 levels by 2020, compared to the required EU 2020 target of 20%. For the period 2014-2020, agriculture emissions are projected to increase by 6 - 7%. and transport by a 10 - 16% increase on 2015 levels. More recent projects of failure to mitigate transport emissions now project a higher overshoot. This exposes Ireland to major financial penalties, as well as continuing high per capita emissions.

The preparation is not remotely in place for the greater emission cuts needed after 2020 and beyond, and the upfront strategic planning and rapid scaling up of investment in efficiency and alternative technology needed immediately. If Ireland is to take leadership in climate there is no case for any sector including data centres to be given special treatment. Any projects creating increase annual generating demand accordingly needs to be entirely renewable.

Further data storage development proposals in Ireland including this proposal need to be based on an appropriate consideration of the direct and indirect effects of the development on energy demand and therefore on climate All developments have direct and indirect effects. In the case of a road it is upstream and downstream generation of traffic. For power stations it is the fuel supply input and

emission output. For a data storage project the impact is the energy demand, and emission impact of that energy regardless of where or how it is generated.

The impact of a new high energy demand development such as a data centre is not mitigated by obtaining electricity for the grid, even if sourced through a renewable provider. Electricity sourced from the grid is from a mix of generating sources including peat, and a new high energy demand development creates grid demand and reduces net benefit of renewable input to the grid.

The sustainability 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.

Subject Proposal

The EIAR submitted as part of the subject proposal states that data storage buildings two and three will be primarily powered from the national high voltage electrical grid, while data storage building one will be supplied partly from the national high voltage electrical grid and partially through the use of mains natural gas.

The EIAR states that "*the applicant is committed to minimising the environmental impact of infrastructure technology through optimized energy consumption and material efficiency, including use of efficient servers and cooling systems. The introduction of gas engine technology gives resilience to the Proposed Development without the need for major reliance on the national grid for front line power supply for the entire development*".

An Taisce considers that the application has not demonstrated how the proposed development would adequately mitigate climate impacts resulting from a energy intensive development.

Recommendations

It is recommended that Further Information be sought on:

1. The level of energy use required to serve the proposed the development

2. The **specific** sourcing for the proposed energy use, and the measures proposed to ensure that the project will not create any increase in electricity generation causing greenhouse gas emissions.

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

Yours faithfully,

Doireann Ni Cheallaigh

Planning Officer
An Taisce – The National Trust for Ireland