

# **Gluaiseacht submission CRU proposed Direction to the System Operators related to Data Centre grid connection**

## **Introduction**

We think that it's clear from this submission on Data Centres that the State Agencies are speaking a lot of horseshit regarding their current on-going climate action.

As Greta Thunberg tweeted recently "*The unspoken subtext of this year's Cop26 climate conference is clear to the young: that we, the suit-wearing, SUV-driving generation, will do our best within the limits of what big business can tolerate, and what elderly voters will accept.*"

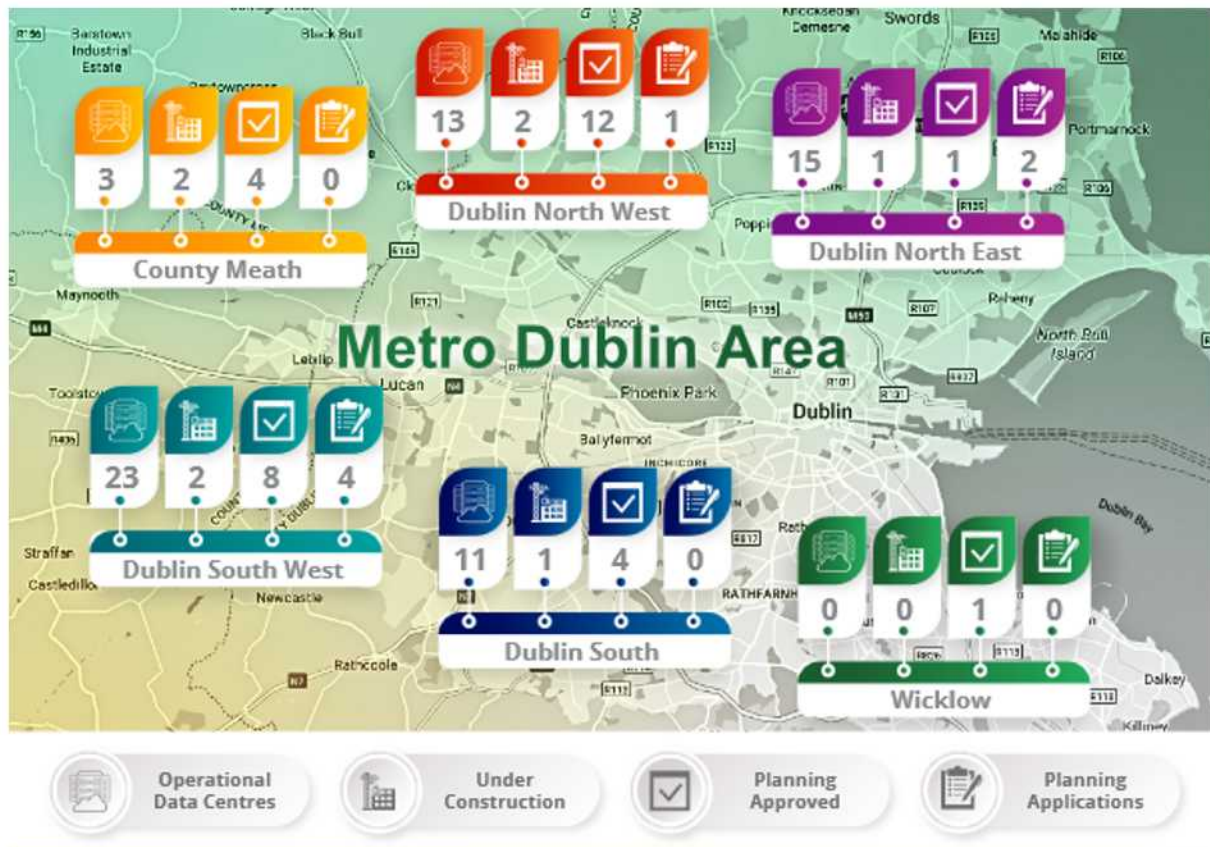
The CRU's proposed way of dealing with Data Centres is the same and the CRU will do their "*best within the limits of what big business can tolerate*". This proposed way of dealing with Data centres is ultimately doomed to failure and dooming our planet to increased climate instability.

We need to transition our energy system away from fossil fuels to a completely renewable energy system, but more importantly we need to reduce our overall energy demand, which is a "fossil fuel era" demand.

## **Data Centres in Ireland**

The growth of data centres in Ireland has been extremely rapid over the last 5 years. In their May 2021 report, Host in Ireland the industry lobby group for Data Centres stated that there are 70 data centres currently operational in Ireland with power capacity of 900MW and 8 more currently being constructed that will add another 255MW.

In addition a further 30 data centres have Planning Approved in the Dublin Metropolitan Area alone and a further 7 with Active Planning Applications.



Graphic from Hosting in Ireland report May 2021

Recently Eirgrids Bill Thompson warned

*“The rate at which data centres are seeking to grow their load is unprecedented. Over the last 4 years we have seen annual increases in demand usage of around 600 GWh from data centres alone – equivalent to the addition of 140,000 households to the power system each year.”*

*“Connection Agreements are already in place for over 1,800 MW of Maximum Import Capacity (“MIC”) for data centres, with up to 2,000 MW of additional requests received... To put this in context Ireland has a current demand peak of around 5,500 MW”.*

<https://www.cru.ie/wp-content/uploads/2021/06/CRU21060-CRU-consultation-on-Data-Centre-measures.pdf>

Over 2020, data centres saw a 27% increase in gas demand. Data Centres also currently consume 11% of energy from the grid and this is expected to rise to 27% by 2029

## Emissions from Data Centres

To quantify some of the emissions that are starting to be seen from Data Centres in Ireland, below is a graph of 17 Data Centres that submitted the emissions from their facilities to the EU emissions trading system (EU ETS). It should be noted that these are the self-declared emissions from the Data Centre facilities itself usually made up gas boilers or diesel generators onsite and don't include emissions from using the National Electricity Grid which would include the majority of emissions related to their activities.

### On-site CO2 Emissions from Data Centres in Ireland

Tonnes of CO2 emissions declared by 17 Irish Data Centres in the EU emissions trading system (EU ETS). These onsite emissions are mostly from gas boilers and backup diesel generators.

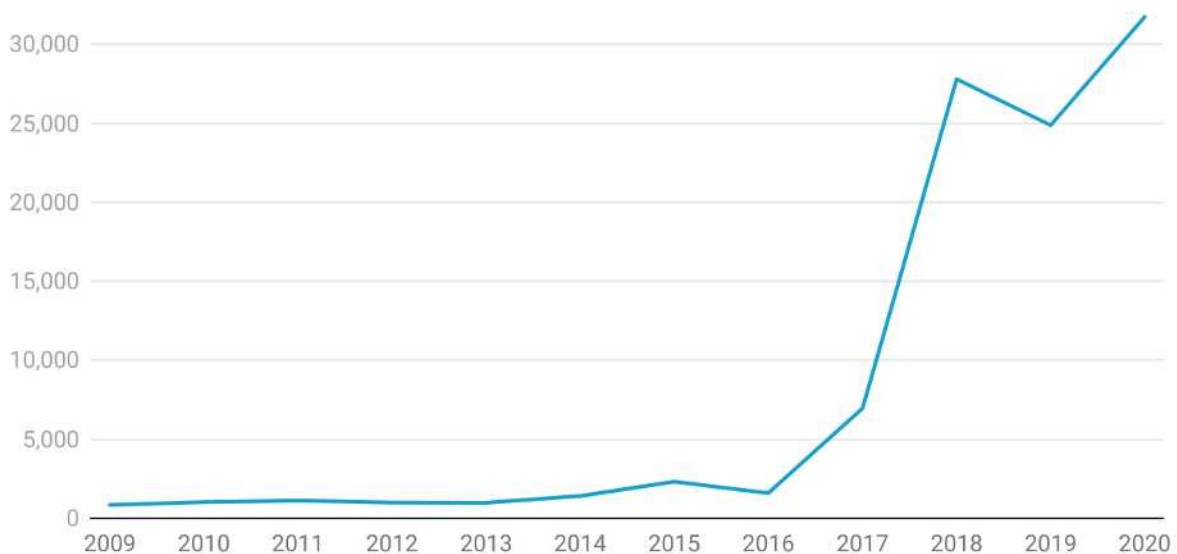


Chart: Slí Eile • Source: EU ETS • Created with Datawrapper

The largest of the data centres declaring their emissions to the EU ETS is the EdgeConnex facility in Lucan, Dublin. It is the 45<sup>th</sup> highest CO2 emitter in the State according to the EU ETS system but this would only be accounting for some of its related emissions. For its main data centre building it is drawing

10MW from the national grid (not included in the ETS system) plus 8MW from gas turbines

<https://baxtel.com/data-center/edgeconnex-dublin>

Projections for carbon emissions from data centres so far are limited although the Irish Academy of Engineering have estimated that by 2030 they'll be adding at least 1.5 million tonnes to Ireland's carbon emissions.

### **Crag Digital - the Data Centre to need an Industrial emission licence**

Last year Crag Digital's data centre in Clondalkin became the first data centre to be issued with an industrial emission licence (IEL) by the EPA, as it's energy generators are over the 50MW threshold.

As part of the IEL application however Crag Digital claimed that the CO<sub>2</sub> emissions from their 8 gas boilers will be "Zero as natural gas supply is accredited as biogas by Gas Networks Ireland, hence minimising the use of natural resources"

*"The use of accredited biogas from Gas Networks Ireland will result in a reduced quantity of greenhouse gas emissions when compared with conventional generation of the c. 735,000MWhrs of electricity the data centre requires to operate each year. Whilst the proposed engines combust only natural gas, an agreement is being made to obtain bio-gas from Gas Networks Ireland for future use at the energy centre."*

However their Environmental Impact Assessment (EIA) shows that they told GNI that by Year 3 of operation they would be using 1.7TWh of gas. Seeing as the current levels of biogas on the gas grid are tiny and the overall Government biogas target for 2030 is 1.6 Twh, it is purely fictitious that this data centre will be powered by biogas. The 1.7TWh of gas needed to power the data centre will account for almost a 3% increase of current overall gas demand, which stood at 58.69TWh for 2020.

[http://www.epa.ie/licences/lic\\_eDMS/090151b2806f85c5.pdf](http://www.epa.ie/licences/lic_eDMS/090151b2806f85c5.pdf) - Pg 509

Address of site to be connected: <sup>Cons</sup> Crag Digital Ltd, Crag Avenue, Clondalkin, Dublin 22  
(Please supply a detailed CAD site map & location map.)

Connection Details:

Year:	1	2	3	4	5	6	7
MHQ (kWh)	34,370	68,740	229,130	229,130	229,130	229,130	229,130
MDQ (kWh)	824,880	1,649,760	5,499,200	5,499,200	5,499,200	5,499,200	5,499,200
EAC (kWh)	255,919,000	511,838,040	1,706,101,900	1,706,101,900	1,706,101,900	1,706,101,900	1,706,101,900
Pressure (mbar):	5,500 (5.5 BAR.G.)						

*Projected gas demand from Crag Digital data centre in a letter between Gas Networks Ireland and Crag Digital*

Despite Crag Digital only writing that "an agreement is being made to obtain bio-gas" the EPA inspector bought it writing:

*"Due to the efficient generation technology selected as well as the proposal to fuel the energy centre using accredited biogas, CO2 emissions associated with the installation will not have a significant impact on climate. Given the quantity of climate altering substances that could be released from the activity, in a national context, I consider that the impact of any emissions from the installation on climatic considerations should be minimal. "*

This statement from the EPA inspector is wishful thinking that this Data centre will have "minimal" impact on emissions.