

# **Gluaiseacht Submission on Amazon's Data Centre in Clonshaugh**

09/11/21

Dublin City Council,  
Planning Registry Section,  
Civic Offices,  
Wood Quay,  
Dublin 8

**Planning Application Reference Number:** 3641/21

**Applicant:** Colliers Properties LLC

A chara,

I refer to the above planning application and wish to make the following objection in relation to the proposed development.

## **Introduction**

**No to Amazon's data centre expansion**

**No to gas expansion**

**No to the Climate Crisis**

Whatever way you look at this project it can in no way be considered to be good for the people of Dublin, the people of Ireland or the people of the Earth. At a time when the climate emergency could not be any more stark and when everyone is looking at minimising use of carbon based energy systems this single project seeks to increase both energy and water usage by massive amounts. We will show in this document the mind bogglingly massive amounts of energy use that is proposed for this project.

These massive energy costs will result in a huge increase in the burning of natural gas. Which, as a fossil fuel, involves one way CO2 emissions. Will this increase in the amount of energy used be for the benefit of Irish citizens we ask? Will it be used to add to our food security? Will it add large amounts of jobs? Will it help to solve the housing emergency? Will it help improve our health service. The answer to all these questions is no. No, it will only be used to provide space for the endless duplication

of data. The data we all have from the endless back ups of smart phone pics or hard drive back ups we will never look at as we upgrade our devices. In short we will show that it is proposed to hugely increase county Clare's energy and water usage just so we can help create more space for everyone to save more junk in the online cloud that is likely to be rarely used in order for a private company to make a profit that will probably not be taxed very much.

### Amazon Existing Data Centres:

A recent Knight Frank report on Dublin characterised Amazon as the company with the largest Data Centre presence in Ireland with a total of 224MW already built and 45MW under construction.

<https://app.dcbyte.com/knight-frank-data-centres-report/Q2-2021>

### MARKET LEADERBOARD

Position	Company name	Total MW Built	Total MW Under Construction
1	Amazon Web Services	224	45
2	Microsoft	140	18
3	Facebook	108	72
4	Google	78	0
5	Equinix	21	19
6	EdgeConneX	18	15
7	K2 Data Centres	18	30
8	Digital Realty	16	6
9	Keppel Data Centres	14	2
10	CyrusOne	12	0

Already this summer Dublin City Council have granted permission to Amazon for a 33.6MW data centre that projected it's own annual power consumption at 589 GWh (<https://planning.agileapplications.ie/dublincity/application-details/141775>). And no sooner is that one granted than they have put in for another Data Centre complex in the same location of the same size. This is project splitting that is being used to hide the true size and energy guzzling status of Amazon's operations in Ireland.

Similarly another 48MW Data Centre complex has been granted permission by Meath County Council in June 2021 following hot on the heels of a previous 48MW set of Data Centres at the same location being granted in 2020.

We find the extensive lobbying campaign that has been undertaken by Amazon in recent years to be very troubling. This lobbying has includes lobbying of Dublin City Council, South County Dublin Council, Fingal County Council and Meath CC in the last year along with many more politicians. We request that the minutes of the

meeting held between the Chief Executive of Dublin City Council and Amazon this year be added to the documents related to this application:

<https://www.lobbying.ie/return/70907/amazon-web-services>

### **Missing and Unclear Information in the Application**

The Energy Statement submitted for this development contains the power rating of a wind farm in Galway but it doesn't contain the power rating for the proposed development. The power rating of the proposed development is relevant information to the proposed development.

Similarly the Energy Statement tells us how many EV charging points are at the site but not the annual overall power consumption for the site. This is deliberately done to obfuscate and try to make unclear how big of a energy guzzling monster is being added to the national grid.

These figures are very relevant to proposed development and should be in the Energy Statement. We did not come across the peak electricity demand for this proposed development written anywhere in the application. The figure of 589GWh annual usage would represent the average electricity demand for 140,000 homes.

***“Ireland’s electricity system was surely not planned to be, nor designed to be, a system which seeks to serve the needs of the global citizen for increased data supported by an ever proportionately smaller non-data centre commercial, industrial and domestic load.”***

Bill Thomson, Eirgrid Group Head of Regulation in a warning letter to the CRU.

### **Climate - Energy - Emissions**

The climate crisis means we need to urgently reduce greenhouse gas emissions. We need to transition our energy system away from fossil fuels to one based on renewable energy, but more importantly we need to reduce our overall energy consumption.

A rapid reduction in the burning of fossil fuels and its attendant greenhouse gas emissions is essential if we are to meaningfully address the climate crisis. The following SEAI produced graphic shows how much renewables actually contribute to the total final energy supply in Ireland:

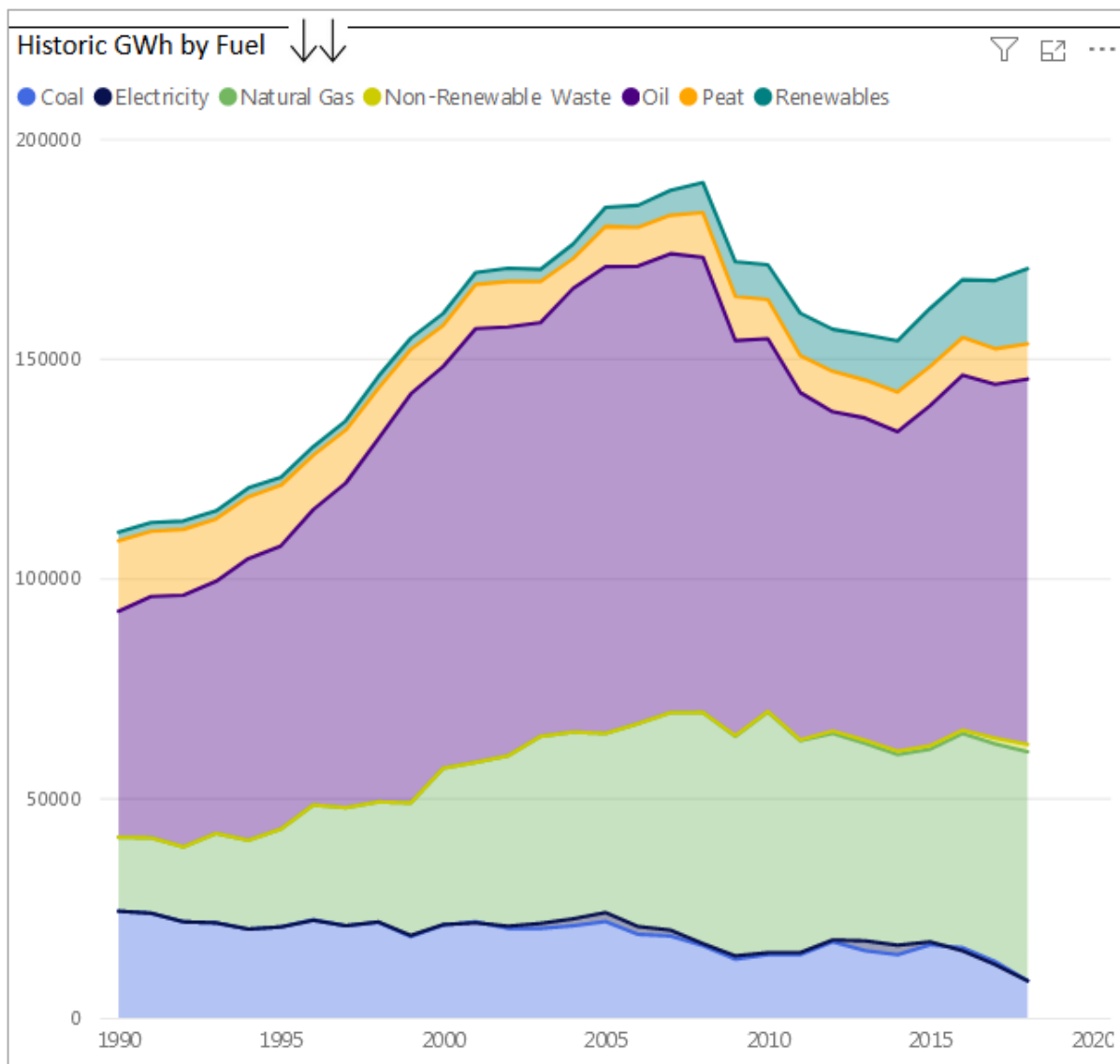
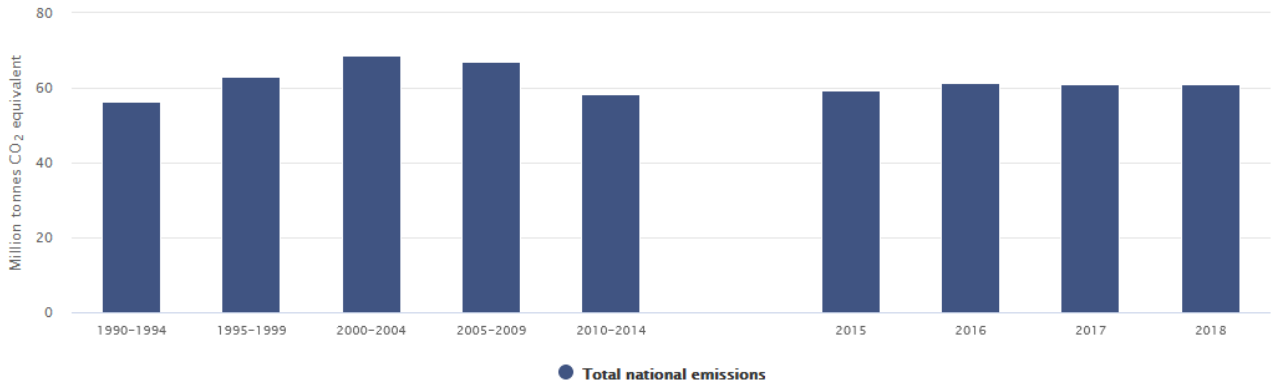


Image from <https://www.seai.ie/data-and-insights/seai-statistics/energy-data/>

The portion of renewable energy has increased dramatically since 1990, but it hasn't "eaten into" our energy demand - that has grown by more than renewables have added. There have been reductions in Greenhouse Gas emissions from electrical power generation overall but this has largely been achieved by replacing coal and peat power stations with gas. The benefit from that switch has been reaped and won't continue the downward trend.

A look at our overall greenhouse gas emissions by year is important for context to see how we are doing. The following graph of overall estimated greenhouse gas emissions per year is from the CSO Environmental Indicators Report 2020:

Figure 4.1 Ireland: Greenhouse gas emissions 1990–2018



Source: Environmental Protection Agency

In 2018, Ireland's greenhouse gas emissions were 60.9 million tonnes of carbon dioxide equivalent. This was 9.9% higher than the 1990 figure of 55.5 million tonnes.

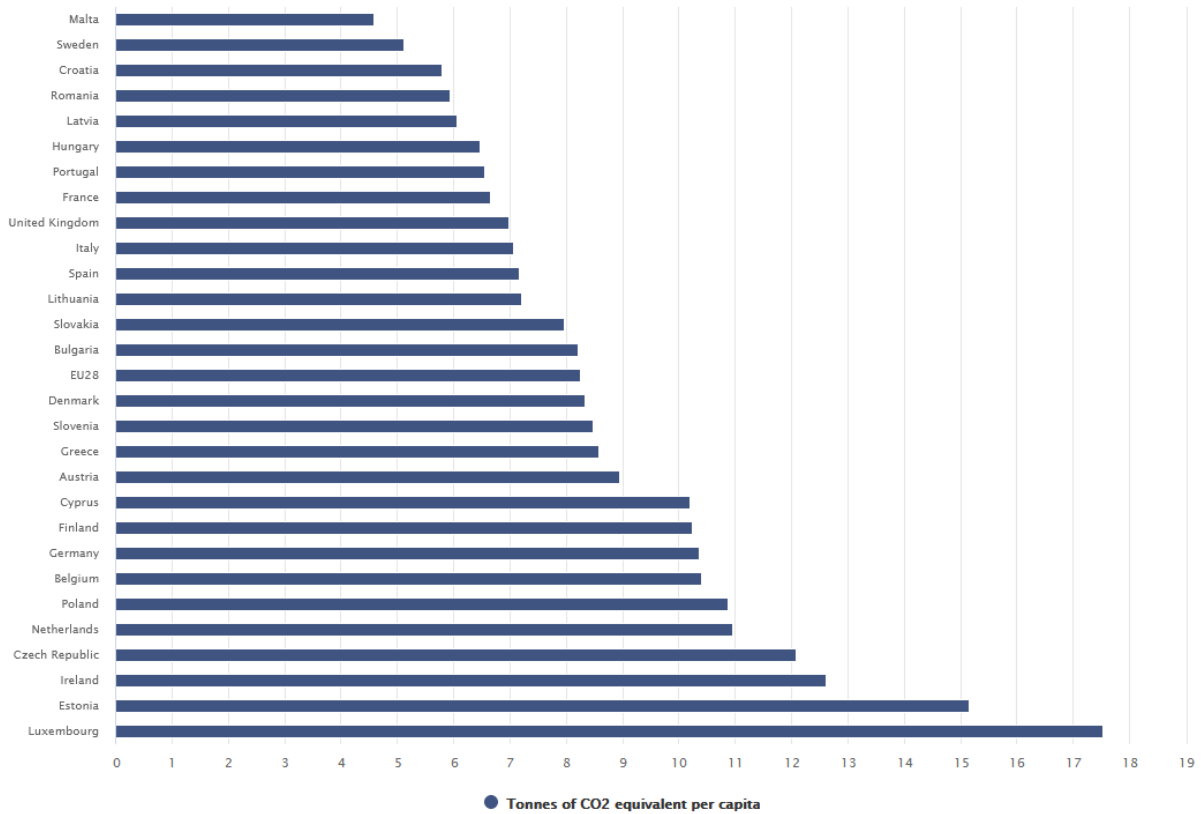
<https://www.cso.ie/en/releasesandpublications/ep/p-eii/environmentalindicatorsireland2020/greenhousegasesandclimatechange/>

The main trend visible over time is the increase in energy consumption and emissions during the Celtic Tiger boom years in Ireland. Our energy use however has risen back up to near the peak of the boom time while our emissions have flat-lined. Despite break-neck deployment of massive wind power capacity and retirement of our most polluting power stations, we cannot reduce our emissions.

For further context, we should understand our emissions position per capita within Europe:

## 4.3 EU: Greenhouse gas emissions per capita 2018

Figure 4.2 EU: Greenhouse gas emissions 2018



<https://www.cso.ie/en/releasesandpublications/ep/p-eii/environmentalindicatorsireland2020/greenhousegasesandclimatechange/>

We are the third worst greenhouse gas emitters per capita in Europe despite having the second highest wind power grid penetration in the world.

The obvious solution to prevent emissions from the burning of fossil fuels is to stop burning them - we need to rapidly reduce our energy demand back to within the capacity of our renewable resources. An overall reduction in energy use is the only viable basis of tackling climate change. This means we need a strategy of energy descent and de-growth economics. The strategies of using economic growth and interest as a means to provide for the necessities of life need to be deposed and replaced with strategies that don't mine our non-renewable resources.

In this context, after recording the seven hottest global mean temperatures on record and during a year which has already brought incredible climate extremes such as the flooding of Germany and near 50 degree centigrade heat in Canada, we have a proposal to add, for private profit, to our national energy demand and emissions the equivalent of all the power used by 140,000 homes.

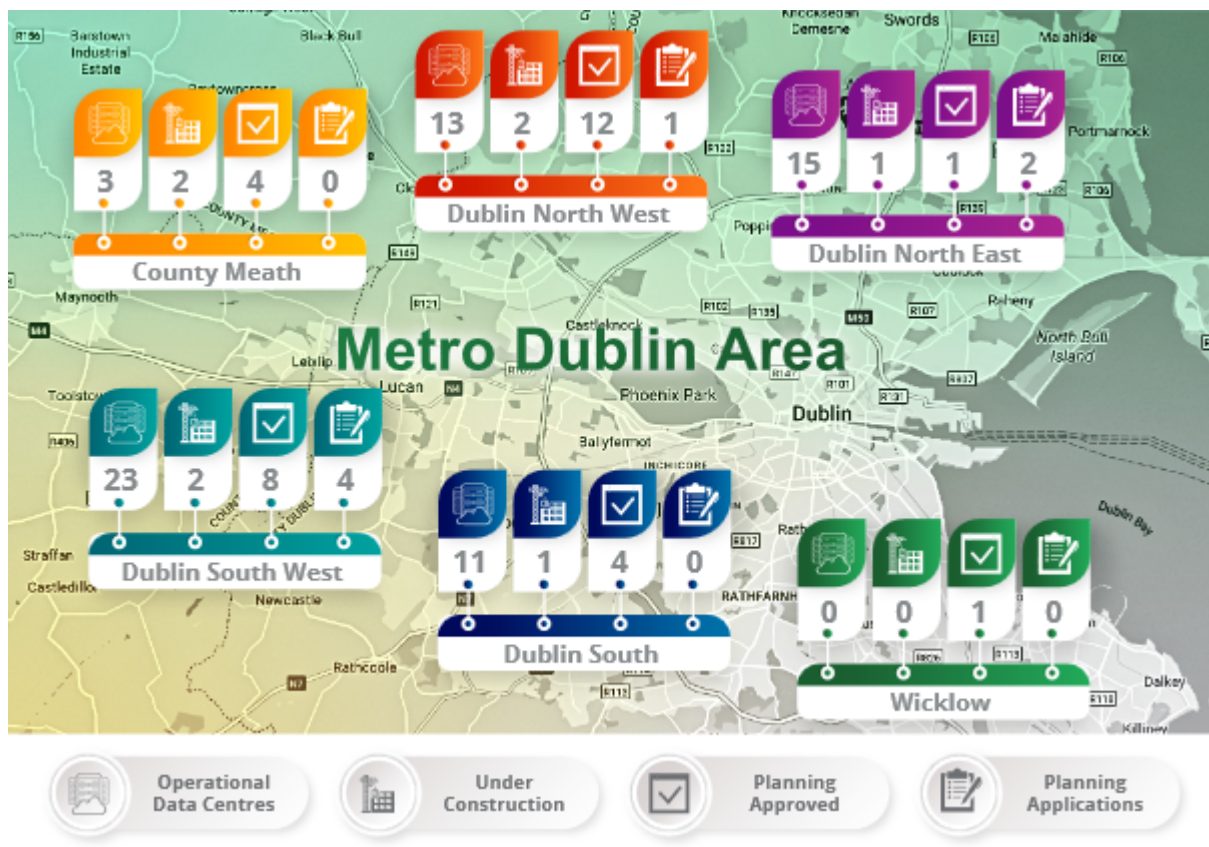
## Proposed Development Emissions

Host in Ireland - the industry lobby group for Data Centres, estimated that Data Centres already account for 1.85% of Ireland's carbon emissions, around 1.04 million tonnes of CO<sub>2</sub>eq. This is likely a gross underestimation and this is expected to rise substantially in the near future unless decisive action is taken immediately.

## Energy usage

The growth of data centres in Ireland has been extremely rapid over the last 5 years. In their May 2021 report, *Host in Ireland* 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”.*

It's clear that Eirgrid are very worried about the growth of Data Centres in Ireland and that this will lead to blackouts. Below is a graph based on the projected electricity demand by Eirgrid for selected transmission interface stations which have data centres close by. <https://www.eirgridgroup.com/site-files/library/EirGrid/All-Island-Ten-Year-Transmission-Forecast-Statement-2019.pdf>

## Eirgrid's expected peak electricity demand (MW) at selected transmission stations

Guess which one doesn't have data centres close by!!!

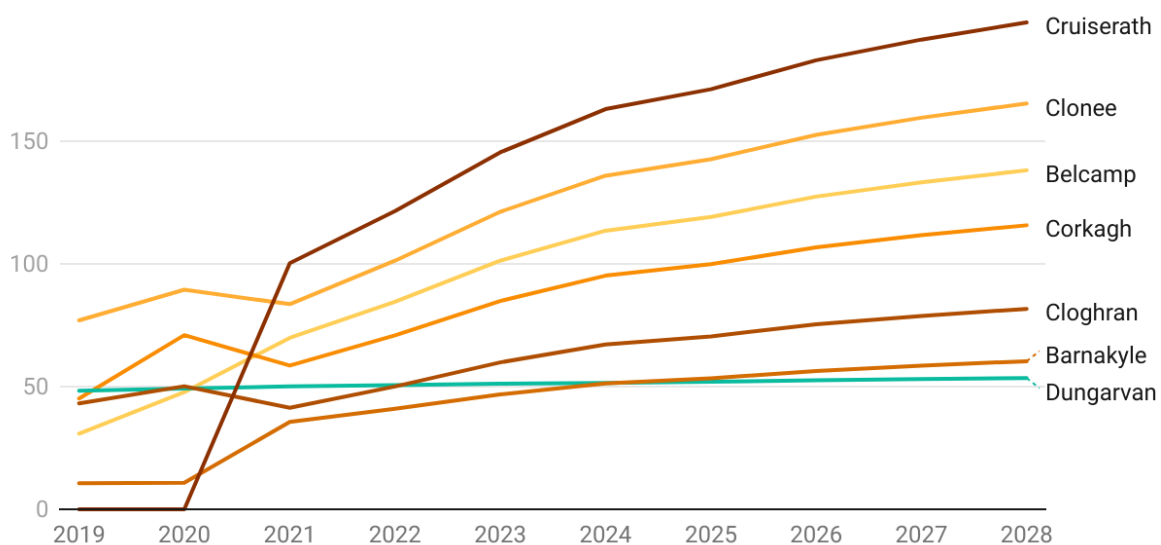


Chart: Slí Eile • Source: Eirgrid • Created with Datawrapper

While developers of data centres may make projections about renewable energy and future technologies that may mitigate emissions in future, we must base our decisions on the fact that the current energy system is overwhelmingly based on the burning of fossil fuels.



It has been shown in a recent BloombergNEF report how out of kilter Ireland is with other European countries with respect to the amount of our annual electricity demand we are willing to offer up to the data centres.

**Table 5: Data-center electricity demand, as a % of national demand (TWh)**

Country	2021	2030
U.K.	3%	5%
Ireland	15%	24%
Germany	1%	2%
Netherlands	6%	8%
Norway	<1%	2%

*Source: BloombergNEF.*

*Note: '2030 %' is using our medium scenario.*

<https://about.bnef.com/blog/data-centers-set-to-double-their-power-demand-in-europe-could-play-critical-role-in-enabling-more-renewable-energy/>

The report also states

"Unlike Germany, most data centers in Ireland are in one major city – Dublin. Dublin's electricity grid was not built to cater for such high demand from data centers, which has resulted in network supply constraints."

The next closest country to Ireland, which is the Netherlands has already begun introducing moratorium and restrictions on Data Centres in selected provinces. The report also highlights how Ireland is in an even worse situation than other countries due to its isolated grid.

Ireland is an isolated power system, with 1GW of interconnection to the U.K., and has high renewable penetration. This means the system operator faces a challenging situation unlike any of the other countries covered, for which it uses several mechanisms to ensure system stability. For example, Eirgrid requires a 'Minimum Generation' (Min Gen) of 1,400MW of conventional fossil-fuel generation to be running at all times.

So what is the solution that is being proposed for the Data Centre problem. Well, the recent Climate Action Plan stated that the plan is to deliver another 2GW of new Gas power stations. If these gas plants are used similarly to our existing gas stations, the emissions are likely to be in the range of adding another 3.4 million tonnes of CO2 emissions to our national output. These new gas plants are primarily needed because of the existing and projected data centres that have been built, with Eirgrid stating recently that they have 1.8GW worth of contracts in place.

## **Conclusion**

We oppose the development as proposed, but we also oppose the development even if the power required can be nominally procured from renewable resources existing or yet to be built. Without a massive reduction in, and an absolute transformation of how we produce, consume and store energy, renewables will only ever make up a portion of the energy mix. The creative accounting that some industries, including data centres, are using to claim that they are 100% renewable powered doesn't stand up to any scrutiny, especially for "always on" industries like data centres.

Projects with this level of proposed new energy and water usage should only be ever considered in the most dire of needs. A data centre simply does not meet this criterion especially when there has been no limits set on how much data is reasonable to store and there are no incentives for individuals and organisations to minimise their data usage in the face of ever increasing demands on energy.

Please reject this planning application

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