Gluaiseacht Submission on the new 299MW Gas power plant in Tynagh

05/01/22

Planning Department,
Galway County Council,
Áras an Chontae,
Prospect Hill,
Galway

Planning Application Reference Number: 212192

Applicant: EP Energy Developments Ltd.

A chara,

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

1. Introduction

According to the Eirgrid's 2021 "All-Ireland Generation Capacity Statement" there is currently 6183 MW of fossil fuel based electricity generating capacity in Ireland. The proposal to add 2000 MW of gas fired power plants to the system in the coming years, therefore signifies adding 32% more fossil fuel generating capacity to current levels. That this is being added to the system mainly to feed brand new demand is as clear an indication as possible that the climate crisis, or Ireland's commitments to greenhouse gas reductions are not currently being taken seriously.

The obvious solution to prevent greenhouse gas and air pollutant 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 for tackling climate change. This means we need strategies of so-called 'energy descent' and 'de-growth economics'. The

strategies of using economic growth and interest rates as a means to provide for the necessities of life, need to be disposed of and replaced with strategies that don't mine non-renewable resources.

This proposed development does the direct opposite to this and so should be rejected out of hand.

2. Climate Implications

In Appendix 7B - 7.1.1 the following points are stated :

"Operational activities will be undertaken for 25 years. As a peaking plant, the plant is expected to run for approximately 1,500 working hours a year"

"The plant will burn approximately 83,527,397 m^3 of natural gas per year and create an average electrical output of 445 GWh"

In line with the operating emissions are therefore calculated
"Annual emissions are expected to be approximately 214,598 tC02e."

The application doesn't illustrate where this "1,500 working hours a year" comes from. This equates to 62.5 days a year of operation.

It can be seen in Fig 1 & 2 from Eirgrids All-Island Generation Capacity Statement 2021-2030 that they are projecting a very significant rise in electricity demand in the coming years.[1] In the Median Demand Forecast a 5.6TWh increase is projected in the next 5 years.

Table A-1 - The Median Demand Forecast, given in Calendar year format (including a correction to 366 days in each Leap year), for Total Electricity Requirement (TER). TER is the total electricity required by the region, i.e. it includes all electricity produced by large-scale, dispatchable generators, all small-scale exporting generators, and an estimate of electricity produced by self-consuming generators. *Figure is provisional

Median	Calendar year TER (TWh)						TER Peak (GW)			Transmission Peak (GW)		
Year	Ireland		Northern Ireland		All-Island		Ireland	Northern Ireland	All-Island	Ireland	Northern Ireland	All-Island
2020	30.8	1.3%	8.3	-4.3%	39.1	0.1%	5.48	1.68	7.10	5.36	1.65	6.98
2021	32.1	4.2%	8.4	1.0%	40.5	3.5%	5.65	1.68	7.26	5.54	1.65	7.14
2022	33.3	3.8%	8.5	0.9%	41.8	3.2%	5.84	1.68	7.45	5.72	1.65	7.33
2023	34.7	4.3%	8.5	0.4%	43.2	3.5%	5.97	1.69	7.57	5.85	1.66	7.45
2024	35.8	3.1%	8.6	0.4%	44.3	2.5%	6.07	1.70	7.69	5.96	1.67	7.57
2025	36.4	1.9%	8.6	0.4%	45.0	1.6%	6.16	1.72	7.79	6.05	1.68	7.67
2026	37.5	2.8%	8.6	0.5%	46.1	2.4%	6.26	1.73	7.89	6.14	1.69	7.77
2027	38.4	2.4%	8.6	0.2%	47.0	2.0%	6.34	1.74	7.99	6.22	1.70	7.87
2028	39.3	2.5%	8.7	0.2%	48.0	2.1%	6.41	1.75	8.09	6.30	1.71	7.97
2029	40.1	1.9%	8.7	0.2%	48.8	1.6%	6.49	1.75	8.18	6.37	1.71	8.06
2030	40.9	2.1%	8.7	0.1%	49.6	1.7%	6.57	1.75	8.27	6.45	1.71	8.15

Figure 1

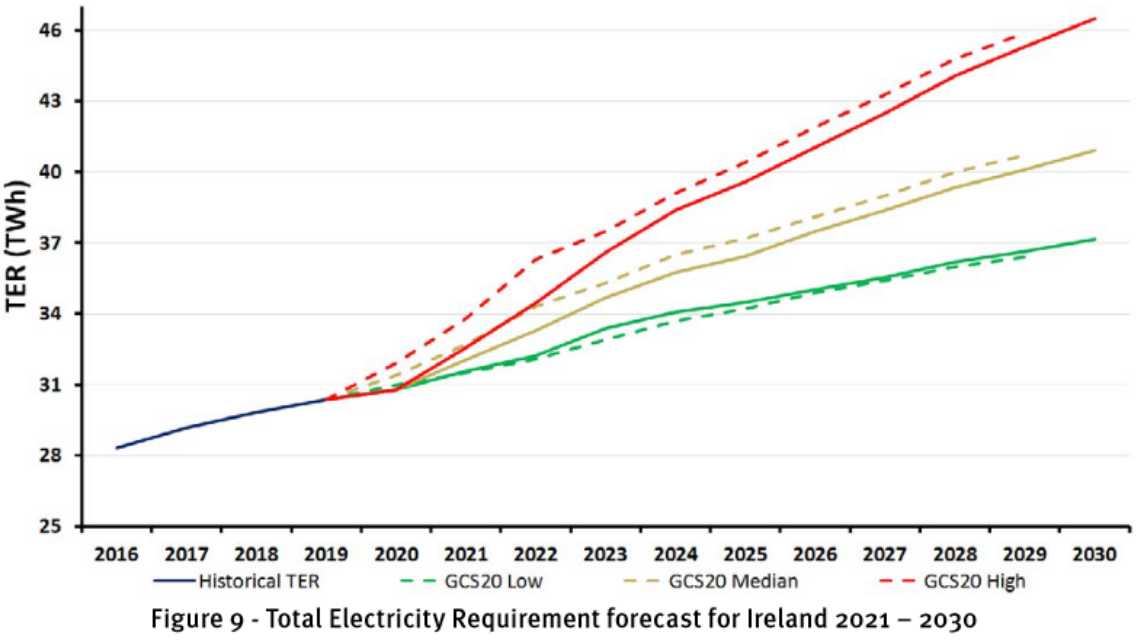


Figure 2

Furthermore as shown in Figure 3 (Table A-6), Eirgrid are projecting a modest additional 800MW (5325 - 4525) of wind energy sources being added to the system over the next 5 years. Therefore it is clear that this rise in electricity will not be met with renewables.

Table A-6 - All Renewable energy sources in Ireland (MW). We have assumed that the peat plant at Edenderry will be approximately 40-50% powered by biomass by 2020

At year end:	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
All Wind*	4,525	4,725	4,925	5,125	5,325	5,815	6,985	8,405	9,125	9,400
All Hydro	242	242	242	242	242	242	242	242	242	242
Biomass/LFG (including those units registered in the Capacity Market and Biomass CHP)	24	24	24	24	24	24	24	24	24	24
Waste (Assume 50% renewable)	41	41	41	41	41	41	41	41	41	41
Peat Stations on Biomass	59	59	59	0	0	0	0	0	0	0
Solar	261	384	507	630	692	753	815	877	938	1,000
Total	**5,152**	**5,475**	**5,798**	**6,062**	**6,324**	**6,875**	**8,107**	**9,589**	**10,370**	**10,707**

*The wind forecasts past 2021 are not based on exact projects. When more detailed information of exact wind developments occur, this will be included in the forecast.

Figure 3

The applicant has not gone into any of these detailed projects that are publicly available to justify where they have calculated their 1,500 working hours a year and 214,598 tC02e annual emissions. SEAI's Energy in Ireland 2021 report stated that for 2020, gas provided 51% of electricity generation vs 36% wind. Given the projected rise in electricity demand this % of the share generated by fossil fuels in the short term is very likely to rise rather than fall.

Gas Networks Ireland are continuing to project an overall 29% increase in gas demand from the power generation sector by 2029 (or a 61% growth in gas demand in it's High Demand scenario).[3] Their projected growth for overall annual gas demand is 23% or a 45% forecast for the High demand scenario.
GNI are estimating an annual gas demand increase for the power generation sector from 32.5TWh in 2020 to 41.9TWh in 2029 (or 52.8TWh in the High demand scenario). To put these figures in context, wind generation provided about 10TWh of energy to the grid in 2019. So it's clear in the short term that this increase in demand will not be met with renewable power.

It is therefore creating a distorted picture for the applicant to claim that the power plant will only be called on to output 445GWh and run for only 1,500 hours in the first few years of operation.

EP Energy Developments haven't provided an accurate picture of the usage or GHG emissions of the proposed development or justified how they arrived at their very dubious projections.

3. Data Centre Demand

As Eirgrid also make clear this rise in demand is primarily due to data centres that are expected to be added to the system as detailed in Figure 4 & Figure 5.

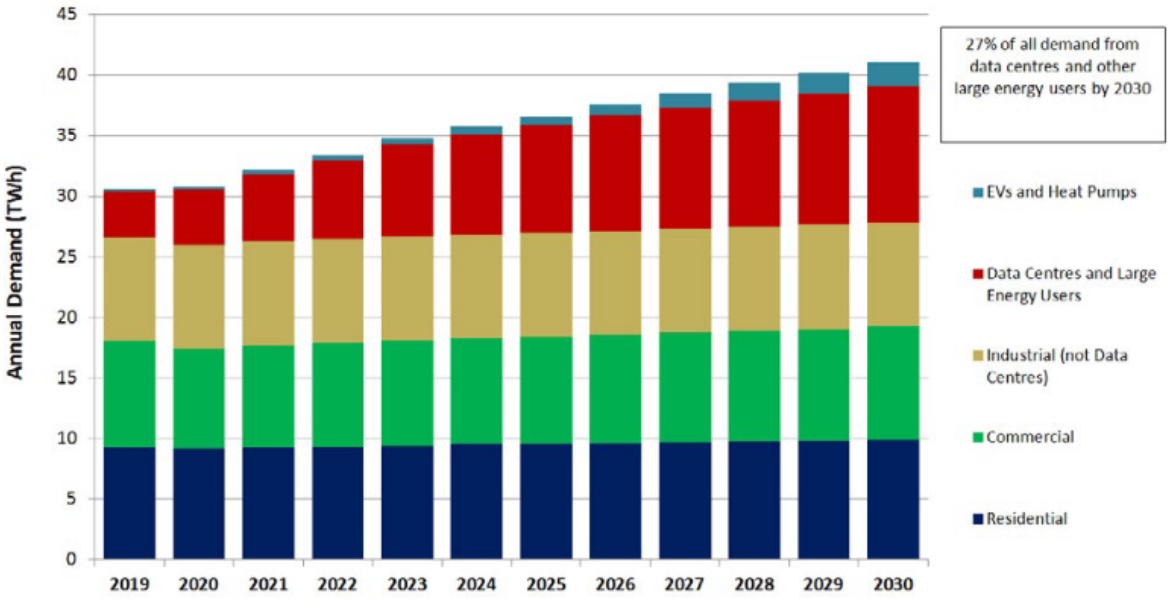


Figure 10 - For the Ireland Median Demand scenario, this illustrates the approximate split into different sectors. EirGrid estimate that 27% of total demand will come from data centres and large energy users by 2030

Figure 4

Figure 5 taken from the CRU consultation on Data Centres [3] shows an approximate 10TWh growth in annual electricity requirements due to data centre demand.

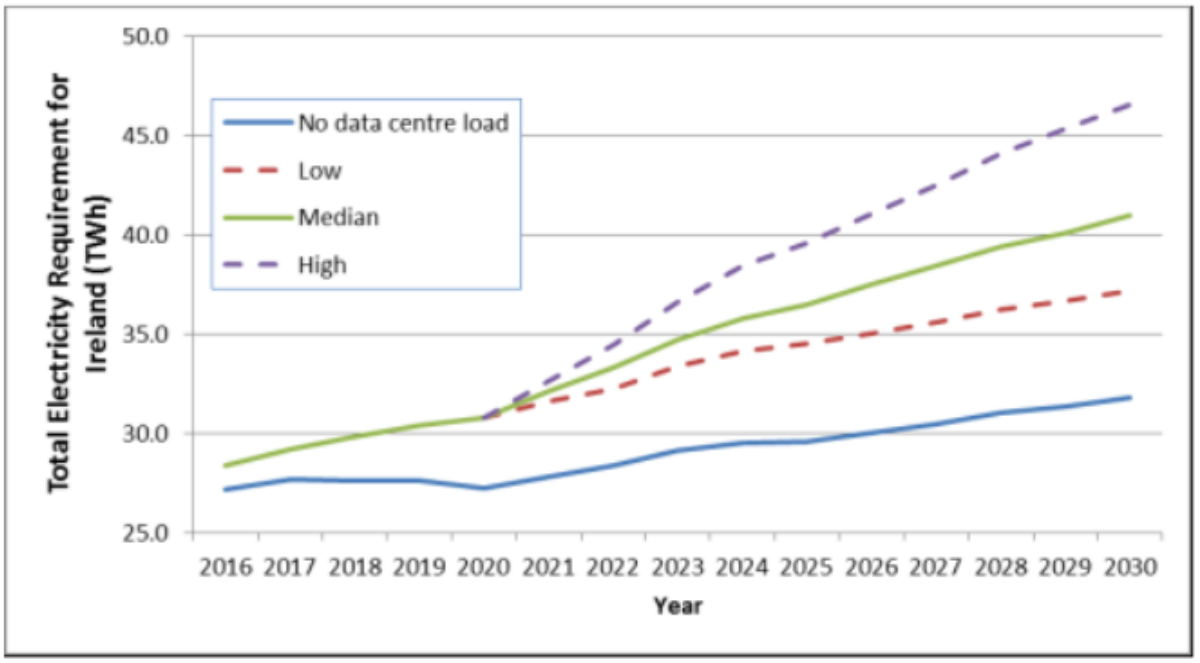


Figure 5: Data centre demand forecasts against average growth forecasts. Source: EirGrid

Therefore we can say with some confidence that this gas power plant is being added to service the needs of the data centre industry. Indeed recent quotes from Eirgrid CEO Mark Foley and Chairwoman of the Climate Change Advisory Council (CCAC) Marie Donnelly emphasise this point

Mark Foley CEO of Eirgrid
"We can't get your customers [data centres] connected in the near term, it's as simple as that. We wouldn't have this proposition [data centres to build their own generation] if the 2000MW was literally coming and the wires were there. So it's actually designed fundamentally to try to give your clients and critical FDI companies in this country, a way to continue to grow their business and not be shut down because Ireland Inc won't be ready for another 5 to 7 years. So it's an enabling tool."[3]

Chairwoman of the Climate Change Advisory Council (CCAC) Marie Donnelly
"So this [building of gas fired power plants] is a short term fix for that technology gap [grid stability] that we have that needs to be plugged right at this point in time"

In Bill Thompson's (Group Head of Regulation for Eirgrid) Letter to the CRU 27 May 2021 [3] he states
"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."

"The unprecedented growth brought about by the data centre phenomenon, or paradigm shift, has to raise questions about the very design and purpose of the transmission network and centralised power system itself. Ireland's electricity system was surely not planned to

be, nor designed to be planned 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. Whilst not questions first and foremost for EirGrid it surely must as part of this, give rise to consideration and potentially wider national debate as to that which is in the public interest in this regard. Such considerations of the public interest are specifically called out in the relevant sections of the statute concerning the granting by EirGrid of connections to the system."

We have still not had the “wider national debate” on the future of the country’s electricity system that Mr Thompson called for. But we need to be clear what this application stands for. It stands for putting multinationals' new electricity demand before our climate obligations and targets.
This application continues the practice of relying on fossil fuel growth to continue the practice of economic growth. So while the entities involved in pushing this application forward will talk about climate targets, the energy transition & renewables, in reality it is clear that this is just greenwashing nonsense.

4. EPH - The Coal Villain of the EU

The applicant EP Energy Developments, have created a website for the project (https://epenergydevelopments.com/) where they claim that “Our aim is to support Ireland’s lower carbon transition through provision of flexible and reliable energy supply.”
However their parent company EPH is a very destructive force on the planet. In the EU Emission Trading System EPH had the 3rd highest emissions of any company, with verified emissions of 46 million tonnes of CO2eq last year and most of these are from 3 coal power stations that they bought just in 2016. [6] They also bought the Kilroot coal power station in Antrim in 2019.

This recent journal article published in Energy Research & Social Science labels them the Coal Villain of the EU stating that-
"Depending on the perspective, it [EPH] acts like either a scavenger, buying out “dirty” coal assets from energy incumbents, or a profiteer,
taking advantage of the recently introduced capacity mechanisms which give an afterlife to such assets, thereby extracting rents from transition policies. EPH thus simultaneously contributes to the transition and compromises the goal of decarbonization." [7]

A report from the Czech environmental group Re-set is also very damning on EPH’s conduct:
"EPH has become known in the European Union for its “vulture-like” strategy of picking up unwanted coal assets which more climate conscious companies have spurned. This created a fossil giant that operates many of the dirtiest coal-fired power plants in Europe – such as Boxberg, Schwarze Pumpe, Lippendorf and Jänschwalde. In 2018, its coal assets alone had higher emissions than a half of the states of the European Union had at that time. Its subsidiary LEAG in Lusatia has also been threatening people‘s homes with efforts to expand mines and demolish villages, which histori-

cally have worst impacted the local Lusatian Sorb minority. At the time of publishing this report, LEAG, among other things, was currently demolishing the village of Mühlrose–Miloraz, despite the fact that it did not yet have a permit to mine coal under it.
The company‘s strategy is then to keep the coal in operation for as long as possible, to receive so-called „capacity payments“, or to pressure states and lobby for generous “compensation” for their shutdown under the threat of arbitration lawsuits under “international state-investor dispute settlement” treaties, such as the Energy Charter Treaty." [8]

This company that is prioritising it’s profit over the climate crisis is not a company fit for a country such as Ireland that has stated carbon emission reduction goals.

5. Irelands Emissions - The bigger picture

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:

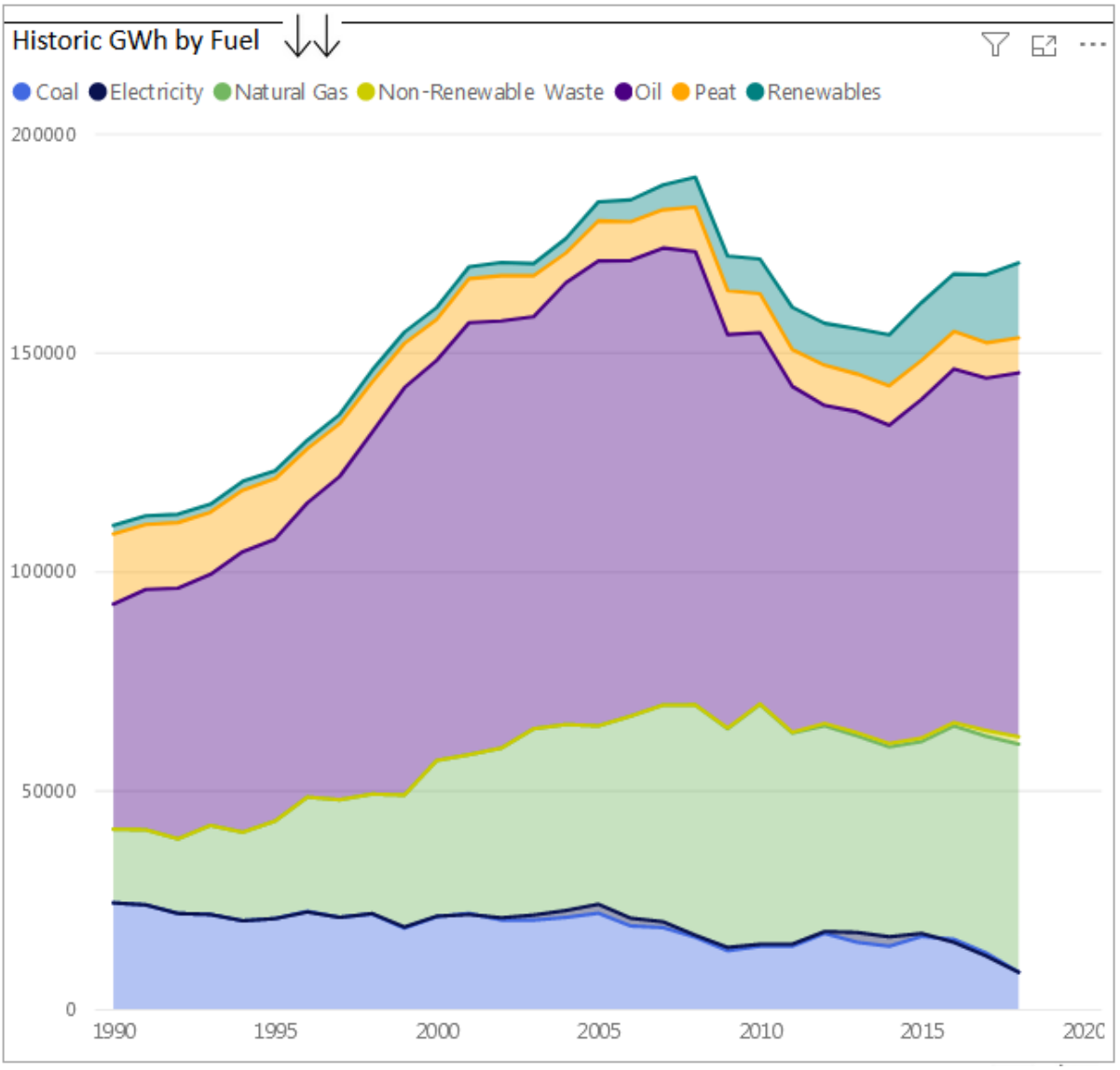
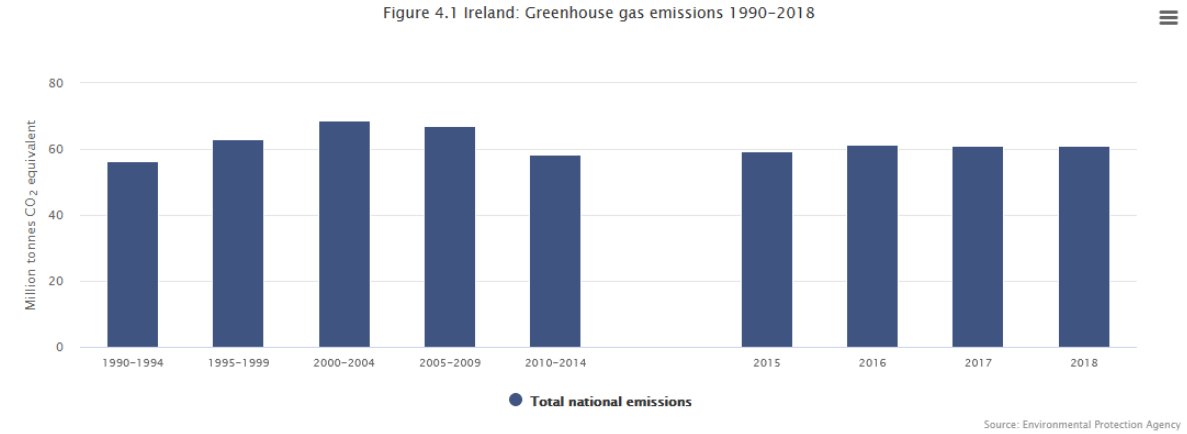


Image from https://www.seai.ie/data-and-insights/seai-statistics/energy-data/

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:

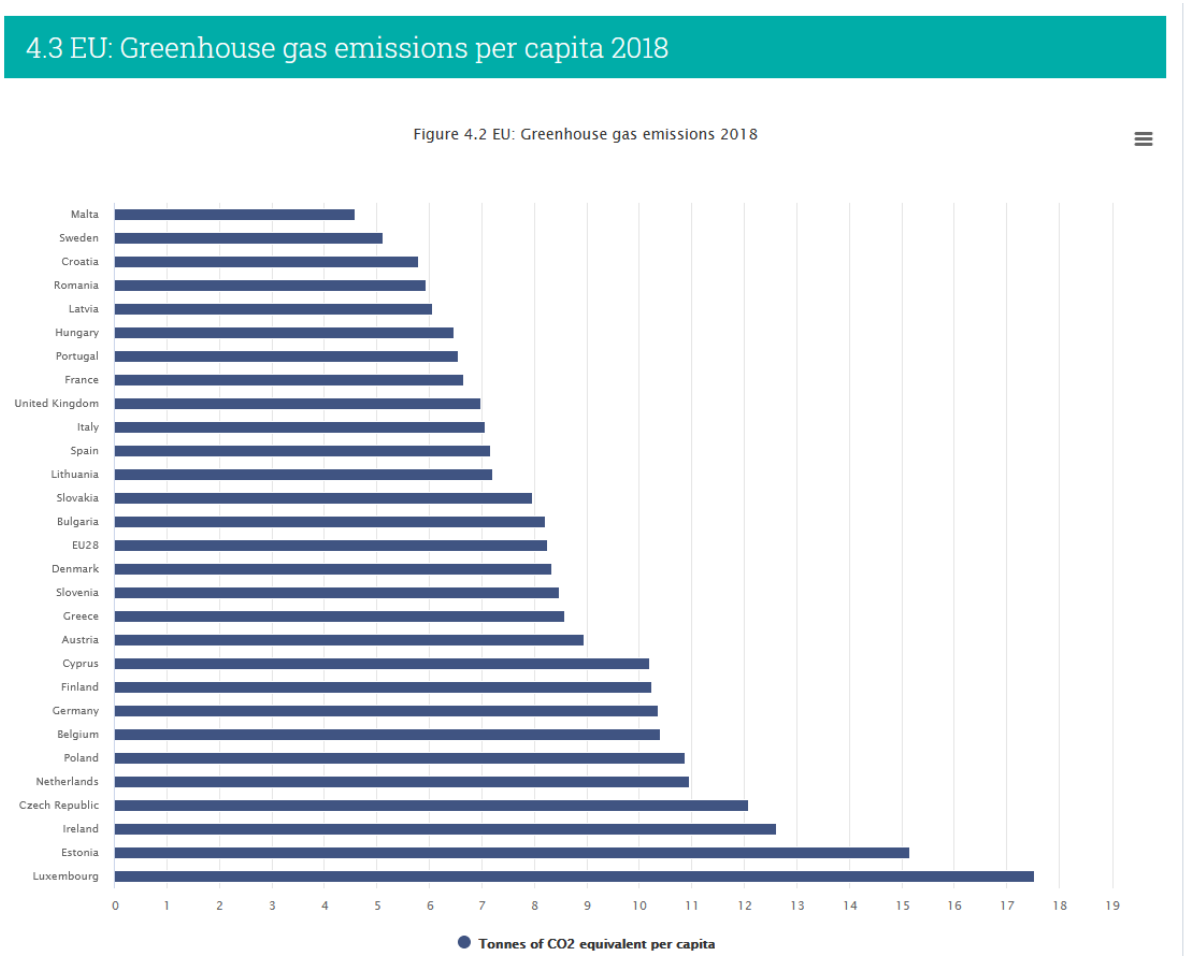


In 2018, Ireland's greenhouse gas emissions were 60.9 million tonnes of carbon dioxide equivalent. This was 9.9% higher than the 1990 figure of 55.5 million tonnes.

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:



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.

6. Energy Security and Environmental Concerns

A further issue is where the Natural Gas for the proposed plants will come from. At the time of writing it is not clear that the Nord Stream 2 gas pipeline will come online due to political tensions between Russia and the EU. Even if the Natural Gas is to be sourced from Norway or Algeria or the Middle East, Ireland is at the end of the pipeline should any supply constraints occur. It seems astounding to choose to construct 2GW of Natural Gas electricity generating plant which will have a lifetime of at least 25 years, simply so that the construction of Data Centres can continue, when the focus should be on installing 2+GW of Wind Turbine capacity. In the worst case, the natural gas will be sourced from US fracking operations which have untold environmental impacts over there.

7. Conclusion

We oppose the development and this should be rejected by anyone that takes the climate crisis seriously. We are not going to reduce our emissions by adding loads of new fossil fuel based generation capacity, and it is wishful thinking that this is going to happen. This project proposal is a continuation of the policy of using fossil fuel to preserve the illusion that economic growth can just keep growing and growing .

Please reject this planning application.

Yours sincerely,

Gluaiseacht

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Links:

[1]
https://www.eirgridgroup.com/site-files/library/EirGrid/208281-All-Island-Generation-Capacity-Statement-LR13A.pdf

[2]

https://www.gasnetworks.ie/corporate/gas-regulation/regulatory-publications/GNI-2020-Network-Development-Plan.pdf

[3]
https://www.cru.ie/wp-content/uploads/2021/06/CRU21060-CRU-consultation-on-Data-Centre-measures.pdf

[4] Mark Foley CEO of Eirgrid speaking at Data Centre Webinar
https://twitter.com/sli_eile_/status/1466697798351572992

[5] Marie Donnelly speaking at Oireachtas Climate Committee:
https://www.oireachtas.ie/en/oireachtas-tv/video-archive/committees/5046

[6]
https://www.carbonmarketdata.com/files/publications/EU%20ETS%202020%20Company%20Rankings%20-%207%20Oct%202021.pdf

[7]
https://www.sciencedirect.com/science/article/abs/pii/S2214629621001596

[8]
https://re-set.cz/wp-content/uploads/2021/04/insurancereport2021.pdf