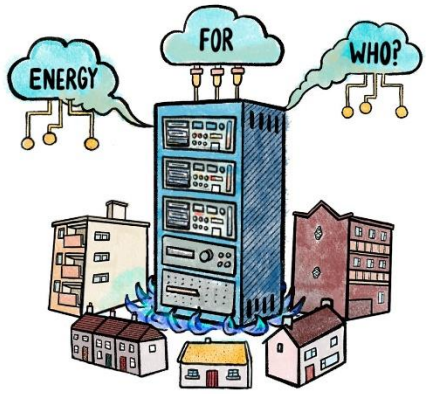
# Energy for who?




## 5 reasons we don't need so many data centres - and why we need to campaign against them.

A Friends of the Earth resource on data centres for climate justice campaigners

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### Introduction

*Data centres are already using up more than 20% of Ireland's electricity, more than all urban homes in the country. This is forecast to grow to a staggering 30% by 2030 - data centres are predicted to consume almost one third of Ireland's grid power. At best estimates, Ireland currently hosts 82 operational data centres, with more being announced and seeking permission, predicting a 65% growth in the sector in the coming years. Irish governments have marketed Ireland abroad as a world leader for the Data Centre industry to the point where we now account for at least 25% of the European data centre market - and this is projected to surge. If we continue to allow this unchecked growth of such an energy and fossil fuel guzzling industry it will wreak havoc with our climate, our ecosystems and undermine so many other aspects of Irish society.*

## 1. Bad news for local environments and infrastructure, worse news for the climate

Hearing that a data centre is setting up in your local area is not good news. Data centres' on-site gas and diesel generators emit not only greenhouse gas emissions but also potentially harmful pollutants into the local air. Data centres can also **place huge demands on an area's water supply.** A data centre requires tens of millions of litres of water every day to cool down its servers during the warmer summer months - essentially using the same amount of water as a large town. Meta's Data Centre in Clonee uses over 900,000 cubic metres of water, and despite the industry's argument that Ireland somehow has the perfect climate for data centres - this is actually more than any other of its data centres worldwide. This does not even look at the issue of land use - the majority of data centres in Dublin are in areas with higher rates of poverty and material deprivation. **In this context using so much land and water for heavily polluting data centres, that are run for corporate profits, is hard to understand.**

Data centre's hunger for energy also poses a huge threat to Ireland's climate targets. Data centres are already using more than 20% of the nation's total electricity - that's more electricity than all the urban homes in the country combined. So any growth in this sector is likely to make Ireland's climate goals practically impossible to achieve. Friends of the Earth research has shown that **huge growth in data centre electricity demand would substantially increase the challenges of meeting legally binding climate targets.**

Lack of planning regulation around data centres also means they are **increasingly competing with housebuilding.** This has come into stark relief in a few parts of the country. For example, in Newcastle, County Dublin, one substation built to serve growing power needs of new housing projects had its entire energy demand gobbled up by expanding data centres instead.

While renewable energy provides for some of data centres' power demand, most rely on fossil fuels. **Data centres in Ireland are increasingly driving our gas demand in the wrong direction**. Because they have maxxed out the electricity network, **Data Centres are increasingly plugging directly into the gas network, with 11 data centre connected to the gas network and 22 more seeking a connection at time of writing.** Professor Hannah Daly has published extensive research which shows how this is an incredibly dangerous situation. In some cases, **a data centre is proposed as justification for building new fossil fuel infrastructure.** The Shannon Liquefied Natural Gas (LNG) project promoter, New Fortress Energy, has declared plans for a huge data centre next to a proposed LNG terminal.

The Irish Academy of Engineering (IAE) predicts that data centre development will add at least 1.5 million tonnes to Ireland's carbon emissions by 2030, a 13% increase on current electricity sector emissions.

## 2. A waste of (renewable) energy

We often hear that Data Centres can just be powered renewably and all will be fine. But the unlimited and sustainable growth of data centres is currently nothing more than a myth. As research by Professor

Hannah Daly has shown, **all the growth from new wind energy created in Ireland between 2015 and 2023 has been outpaced by data centre energy demand. Instead of replacing fossil fuels, wind energy is racing to keep up with the rise in data centre electricity use.** This makes it harder to ramp up cleaner and cheaper local renewable energy for things like home heating, transport and public services.

One data centre in Wicklow, Echelon, which is positioning itself to plug into the Arklow bank wind farm, is estimated to use 50% of all the renewables produced there. So what about the local community, and households and services along the east coast?

We already face a huge challenge to switch our energy system away from fossil fuels to 100% renewable energy at the speed necessary to prevent runaway climate breakdown. If energy demand increases this challenge will become more difficult, to the point of being impossible. This makes it essential to choose what we use renewables for wisely - and make sure that we prioritise renewable energy that is essential for human wellbeing, such as powering homes, schools and hospitals. We can't simply say yes to renewables for any kind of activity.

Secondly, all energy comes at a cost and even renewable energy can come with huge environmental and social impacts. The raw materials used to create solar panels and wind turbines and associated technologies such as batteries are not plucked from thin air instead it must be mined which can have hugely negative impacts on the local areas where the mining takes place and on the communities living in those areas. Mining has become one of the biggest single drivers of deforestation, ecosystem collapse, and biodiversity loss around the world. Ecologists estimate that even at present rates of global material use, we are overshooting sustainable levels by 82 percent. Much of this mining (and its associated negative impacts such as pollution, human health impacts, water supply and land grabs from Indigenous Peoples) happens in the global South while the benefits of the renewable energy it is used to create is enjoyed by the global North - hence continuing the North's exploitation of the South which has been happening since colonial times.

## 3. What are they doing in there anyway?

A lot of the time – nobody knows! Veritas estimates that 52% of data stored on data centres is "dark data" and over 30% is obsolete or trivial. It's highly likely that much of the data stored by data centres does not contribute to human flourishing or planetary well-being. In fact, you could argue that chunks of it are used to do just the opposite. Think about data that's used to facilitate the development of algorithms that build hate on social media, leading people towards greater polarisation and more extreme views. Or data that's used for advertising to create a false need in people to buy more and more stuff which in turn leads to overconsumption with huge environmental impacts. As Joanna Moll has shown in her work, Hidden Life of an AI User, in order to maximise its advertising potential, Amazon generates huge amounts of data just from one search on its shop site.

AI tools like Google Gemini are ten times more energy intensive than older web processes but are being built into everyday web systems without users being able to opt out. Chat GPT famously uses half a litre of water every time you ask it a question.

There is also nothing stopping Big Tech from selling AI products to oil and gas companies to increase profitability, increase extraction rates and drive-up emissions that our causing our planet to burn. Most of the major household big tech names like Amazon and Microsoft have deals with oil and gas companies to do this. Likewise, many of these companies have deals with the military. Microsoft was recently added to the BDS list for its role in providing the Israeli military with AI tools to increase the targeting and massacre of Palestinians in Gaza.

## 4. Empty job promises and rising bills

Those pushing for the construction of data centres sometimes play the "jobs card" - arguing that data centres will bring jobs to the area. But in reality most of the jobs that data centres create are short term construction jobs that will dry up once the centre is completed. By the Department of Enterprise's own admission, the amount of jobs that a functioning data centre maintains is small. And tiny in comparison to the amount of jobs that creating a more sustainable and caring economy would create. In fact, there's a huge shortage of construction (and other types) of labour to carry out essential work like retrofitting Ireland's entire building stock to reduce our emissions and create warmer homes and buildings for all. Instead of being lured in by the false promises of data centres, the Government should be doing everything it can to realise the jobs potential of sectors that will facilitate our transition to a low carbon economy. There is an urgent need to attract, and train up, workers in these sectors, such as the retrofitting sector. The Government needs to be much more proactive in making this happen or labour shortages will seriously hamper efforts to meet Ireland's climate targets.

The pressure that Data Centres are putting on our grid is also hitting our wallets. To keep the lights on in 2023 Eirgrid commissioned new temporary emergency generation to the tune of €1 billion euro – paid for out of public expenses. Network charges are also increasing- this is how network distributors raise money to do upkeep on the energy, but there is a really important distinction between the grid being upgraded in a way that households and workers will see the benefit, and large energy users mopping up collosal amounts of energy without environmental limits and ways that different aspects of our society will be prioritised over others.

## 5. Energy use for who and for what?

The climate and energy crises we're facing now mean that we need to have a serious conversation about energy use - what it's used for and who gets to use it. Climate breakdown is happening now. In 2024 we experienced the chaos unleashed on our lives by fossil fuelled climate crisis all over the planet. From hundreds of thousands of people losing their lives due to fossil-fuelled climate breakdown in Bangladesh , to more frequent and harsher storms flooding towns and agricultural land in Ireland, we need to act now to stop the rising tide of climate breakdown that is threatening our lives, our livelihoods, and our land.

We need to transition away from gas and other fossil fuels to 100% renewable energy fast. But this won't be possible if we allow energy demand to keep growing at the huge pace that it is.

And it's not everyone whose driving energy demand upwards – in fact as SEAI has shown, nearly all the new energy demand in the State over the past decade has been from data centres. In Ireland alone, the energy consumption of data centres has grown by 400% in 10 years. At a European level, Beyond Fossil Fuels has outlined how the energy demand of new data centres is forecast to grow by as much as 287 TWh by 2030 – that's as much as the energy use of Spain, a country with a population of 48 million people. As it outlined in point 2 above, we'll only be able to transition to renewable energy at the scale and speed required if we reduce our overall energy demand - not grow it.

This means that we need to look at sectors where energy use can be scaled down - and prioritise energy use that meets real human needs and is centred on delivering genuine human well-being - for example making sure that everyone can live in warm comfortable homes - regardless of economic status. So you've got to ask - where do the likes of energy guzzling data centres that are owned by mega rich corporations with dubious ethics fit in here? Especially at the moment when ordinary people are struggling to pay their energy bills to meet their basic needs. We should ask similar questions when honing in on data storage itself - such as *whose* data is being stored and *what is it being used for?*