

Ireland's capacity market renewal:

Preventing data centres and fossil gas from adding billions to energy bills



One of Ireland's key electricity supply mechanisms – the capacity market – is coming up for its 10-year renewal with the European Commission, in May 2028. Without necessary interventions, there is a risk that it could add billions of euros to household energy bills to support data centre electricity consumption; which could run in contradiction to EU state aid rules.

The Irish capacity market is already set to add over €7 billion to energy bills between 2018 and 2037,¹ via contracts to companies paid through levies on energy bills. Over two thirds of this was awarded to fossil gas plants. In the context of soaring electricity demand from data centres, this total could be set to spiral. With Irish annual household energy bills having already increased by over €600 since 2020, families can ill-afford further price hikes.²

The renewal of Ireland's capacity market comes at a moment of critical inflection for the country's energy future. With new data centres driving up electricity demand, urgent steps need to be taken to limit this demand and ensure Ireland's power sector emissions fall. It will be vital for compliance with EU regulations that data centres contribute proportionately for the strain they are putting on the grid – and ensuring these costs are not passed on to households and businesses.

We encourage the Irish government, the energy regulator, CRU, and the electricity transmission system operator, EirGrid, to put in place the following guardrails:

- **Protect consumers from price hikes.** Capacity market costs resulting from the energy needs of data centres must not be levied on household and business bills; but rather borne by data centre owners. The CRU should conduct independent analysis to assess the current and future burden that can be attributed to data centres; and ensure this proportion is paid for by data centres.
- **Commit to phasing out fossil gas plant payments via the capacity mechanism and redirect funding into clean, fossil-free options,** including long-duration energy storage, batteries, demand side flexibility, energy efficiency and renewables. This should be accompanied by a long-term plan to exit fossil gas.
- **Exclude data centre on-site fossil generation from accessing the capacity market** via demand side flexibility contracts. This generation is inefficient and carbon-intensive. Instead, existing data centres should be obliged to invest in clean flexibility, grid upgrades and renewables; with on-site gas plants banned.³
- **Exclude environmentally unsustainable technologies from the capacity market,** including 'hydrogen ready' plants and hydrotreated vegetable oil generators.

¹ https://beyondfossilfuels.org/wp-content/uploads/2025/01/20250123_Aurora_BFF_CRM-Report_final.pdf

² The average electricity bill is estimated at [€1112 in 2020](#), compared to an [estimated €1,729 for 2026](#).

³ New data centres in Ireland run in contradiction to our recommendation to place caps on DC energy demand when it represents a significant portion of available electricity, puts intense pressure on the grid and fails to displace fossil fuels. [System Overload](#), 2025 *Beyond Fossil Fuels*.

The Irish capacity market: Already the most expensive in Europe

Capacity markets pay energy assets for their availability to provide electricity “capacity”, should it be needed to meet demand. They work by identifying the “capacity need” of a country, and then providing contracts to energy assets – which can stretch up to 10 years in Ireland. These contracts are paid via levies on energy bills. These mechanisms are approved by the EU for a maximum of 10 years. The Irish capacity market is currently operating under state aid approval until May 2028⁴ – and thus approaching its renewal.



Ireland's capacity auction prices are by far the most expensive in Europe – costing up to 147,580 €/MW. The EU's energy watchdog, the Agency for the Cooperation of Energy Regulators (ACER), has warned that Ireland pays ten times as much as some other countries for its capacity market prices.⁵

Across Europe, these contracts have primarily been awarded to gas plants, accounting for almost half of all contracted payments. In Ireland, 67% of the contracts awarded between 2018-2024 was allocated to gas plants, worth €5 billion.⁶

⁴https://www.semcommittee.com/files/semcommittee/2025-12/SEM-25-070_Consultation_Decarbonisation_of_Existing_CRM_v300_For%20Publication_0.pdf

⁵<https://www.acer.europa.eu/sites/default/files/documents/Publications/ACER-2025-Security-of-EU-electricity-supply.pdf>

⁶ https://beyondfossilfuels.org/wp-content/uploads/2025/01/20250123_Aurora_BFF_CRM-Report_final.pdf

EU rules imply that households should not pick up the tab for data centre electricity use

Electricity demand in Ireland is projected to spiral as more and more data centres seek to come online. Ireland currently hosts 82 operational data centres, with 14 more under construction and planning approval granted for an additional 40, predicting a 65% growth in the sector in the coming years.⁷ Data centres are already using up more than 20% of Ireland's electricity. 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.⁸

As data centres push up the “capacity need” for energy generation, this will mean the size and scale of capacity market contracts could correspondingly increase. A spike in demand in electricity for data centres could lead to higher costs added to household and business energy bills to accommodate for this additional capacity – essentially helping to “prop up” the business model of data centres.



As part of the EU regulations setting out the proportionality of the state aid measures and Article 22 of Electricity Regulation, electricity consumers creating the need for the measure

⁷ https://www.friendsoftheearth.ie/assets/files/pdf/foe_data_centre_resource_updated_august_2024.pdf

⁸ <https://www.iiea.com/blog/data-centres-in-ireland-the-state-of-play>

should contribute more to its costs.⁹ This suggests that it would be unwarranted for households to pick up the tab for the energy capacity “need” created by data centres.

The recent update to the EU state aid framework sets out a model for capacity markets which proposes: “At least 90% of the capacity mechanism costs must be allocated to consumers based on their consumption during at least 1% and at most 5% of the highest price hours (or market time units) each year (or each delivery window). Charges may be levied on balance responsible parties (such as suppliers).”¹⁰

A warning from the US: How capacity markets have added billions to energy bills

In the US, wholesale electricity costs are now as much as 267% higher than they were five years ago in areas near data centres.¹¹ For PJM, the largest grid operator in the US, the capacity market bill surged more than 500% in one year; for the 2025-2026 auction. In parallel, there has been a sharp spike in the prices associated with the capacity market auction (see graph below).¹²

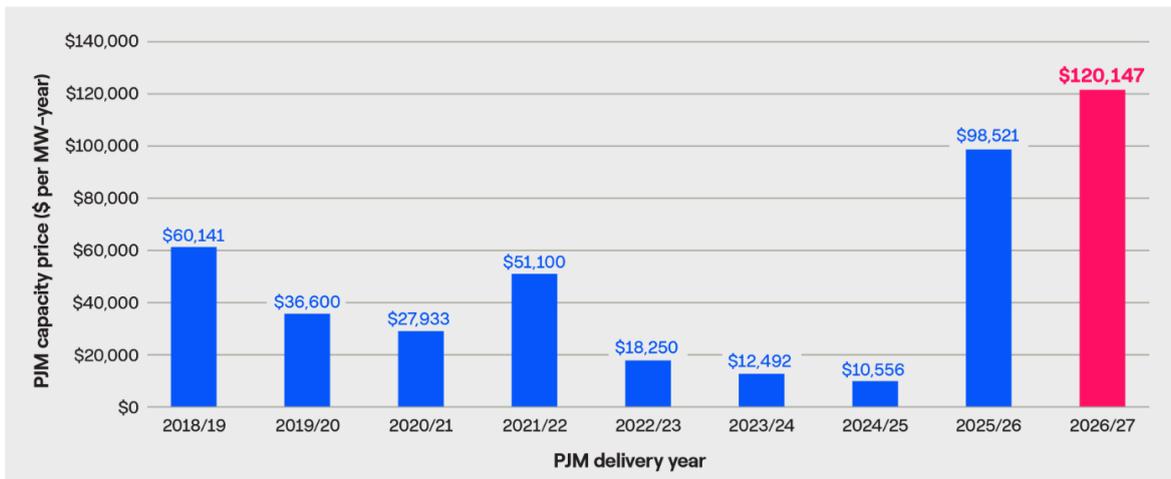


Figure 1: Pricing soars to the highest possible level – and sets a new record – in PJM’s 2026/2027 capacity auction. [Source](#)

An independent watchdog that monitors PJM auctions, Monitoring Analytics LLC, found that data centre demand – both actual and forecast – accounted for \$9.3 billion, or 63% of the total power capacity bill for 2025-26.¹³ In other words, bill payers across PJM are paying \$9.3 billion more in just one year than they would have without data centers’ electricity demand.

⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52016PC0861>

¹⁰ <https://eur-lex.europa.eu/eli/C/2025/3602/oj/eng>

¹¹ <https://www.bloomberg.com/graphics/2025-ai-data-centers-electricity-prices/>

¹² <https://www.enelnorthamerica.com/insights/blogs/pjm-2026-2027-capacity-auction-results>

¹³ <https://ieefa.org/resources/projected-data-center-growth-spurs-pjm-capacity-prices-factor-10>

Technology companies have recently signed a US “ratepayer protection pledge” with the aim of covering additional costs worth \$15 billion, although details are unclear.¹⁴

Capacity market costs are just one of the ways in which data centres could push up energy bills – with higher costs associated with the impact on wholesale energy prices, as well as higher network charges. Grid operators may have to build new grid lines to allow data centres to connect, and these costs are usually borne by all electricity customers.¹⁵

How data centres can further profit from capacity markets: A need to close the loophole

Data centres can benefit directly from capacity markets via Demand Side Unit (DSU) contracts.¹⁶ DSUs can be instructed by EirGrid to reduce their electricity demand. This reduction can be achieved through on-site generation, plant shutdown or a combination of the two. Over 6% of the awarded capacity market capacity is for DSUs.¹⁷ There is no breakdown of how much of that is load reduction, on-site generation (fossil fuel, hydrotreated vegetable oil or other) or batteries. However, there are enough references to suggest that some of it is on-site fossil fuel generation.¹⁸

The scale of the payment creates a perverse incentive: the more energy a unit consumes – and the bigger their fossil fuel generators – the more they get paid in the capacity market to be “available” to switch their own demand over to their own fossil fuel generators.

Additional concerns for cost of energy imports and climate security

In addition to pushing up energy prices, uncontrolled spikes in electricity demand from data centres could increase Ireland's dependence on risky and expensive fossil gas imports. This could threaten Ireland's energy security, as well as leave consumers tied into volatile global fossil gas markets. This is especially concerning as the Irish government is moving ahead with plans to build a costly LNG import and storage facility. The costs of this project, which could reach €1 billion, would either be borne by the Irish state or energy customers; while doing little to improve Ireland's energy security.

¹⁴<https://www.cnbc.com/2026/01/16/trump-wants-tech-companies-to-foot-the-bill-for-new-power-plants-because-of-ai.html>

¹⁵ <https://hls.harvard.edu/today/how-data-centers-may-lead-to-higher-electricity-bills/>

¹⁶<https://www.sem-o.com/sites/sem-o/files/documents/general-publications/20282029-T-4-Final-Capacity-Auction-Results-Report-FCAR2829T-4.pdf>

¹⁷<https://www.sem-o.com/sites/sem-o/files/documents/general-publications/20282029-T-4-Final-Capacity-Auction-Results-Report-FCAR2829T-4.pdf>

¹⁸ For example, see: <https://www.thejournal.ie/investigates-data-centres-6554698-Nov2024/>;
<https://www.datacenterdynamics.com/en/news/aws-buys-105-back-up-diesel-generators-for-new-data-center-in-dublin>

Unchecked data centre growth risks Ireland's legally binding carbon budgets.¹⁹ The projected data centre expansion could lead Ireland to exceed its second carbon budget target for the 2026–2030 period. According to a recent analysis by the Environmental Protection Agency, Ireland is on track to surpass its 2026–2030 carbon budget by 77 to 114 million tonnes under current projections.²⁰

In the context of plans to 'decarbonise' the capacity market,²¹ the government should carefully consider how a potential increase in gas plants – driven by data centre demand for electricity – might run up against EU state aid rules, which require Member States to explain how investments in new gas-fired generation will contribute to achieving the EU's climate targets, and how lock-in of new fossil infrastructure will be avoided.²²



¹⁹ <https://www.iiea.com/blog/data-centres-in-ireland-the-state-of-play>

²⁰ <https://www.epa.ie/news-releases/news-releases-2025/epa-projections-show-ireland-off-track-for-2030-climate-targets.php>

²¹ <https://www.semcommittee.com/news/consultation-launched-options-decarbonisation-existing-crm-design>

²² Guidelines on State Aid for climate, environmental protection and energy 2022

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52022XC0218%2803%29>

Authors: Juliet Phillips, Tara Connolly (Beyond Fossil Fuels)

Contributors: Jerry Mac Evilly (Friends of the Earth Ireland),
Jill McArdle (Beyond Fossil Fuels)

