

\$40 BILLION HIKE

How data centres could
raise power bills

OCTOBER 2026

Key Messages

\$370

a year more on a standard Queensland power bill from 2029-30

\$9.2bn

total impost on household power bills in four states

\$40bn

extra wholesale electricity cost over six years

~90%

of the household cost avoidable with strong data centre legislation

1. **\$370 a year more on a standard Queensland power bill from 2029-30** if 5 gigawatts (GW) of data centres connect to the grid before the clean power to run them is built. That is an increase of about 18% on today's \$1,988 benchmark bill, or \$1,800 over six years.
2. **Households pay an extra \$740 over six years in Victoria**, \$660 in South Australia, and \$540 in New South Wales.
3. **\$9.2 billion total impost on household power bills in all four states**, with business and industry picking up most of the rest.
4. **\$40 billion in extra wholesale electricity cost** across the New South Wales, Queensland, South Australian and Victorian markets over those six years with \$37 billion of it paid by electricity users other than data centres [2][3].
5. **About 90% of the consumer cost is avoidable** if strong data centre energy legislation requires new facilities to bring matched new renewables and storage, based on the CEFC and Baringa matched-supply case [6].

Executive Summary

Australia's rapidly expanding data centre industry is an opportunity for investment, economic growth and the clean energy transition. Without strong national standards requiring data centres to bring new renewable energy and storage to meet their demand, it also carries a risk of higher electricity prices for households and businesses across the National Electricity Market (NEM). If 5 gigawatts of additional data centre load connects to the NEM from July 2028 before new renewable supply is built to serve it, the extra wholesale electricity cost is \$40 billion across the four state markets over the six years 2029-30 to 2034-35. The analysis uses AEMO's electricity consumption forecasts in each state and published independent wholesale price modelling of a 5 gigawatt additional unmatched data centre load scenario [1][2][3].

5 GW is a credible stress test scenario. As at 30 June, AEMO had 17 data centres with 9 GW of connection capacity in its transmission queue, 1.4 GW of it already in implementation and none of it in Queensland; five gigawatts is a little over half of that queue. Networks have advised AEMO of 67 GW of proposed data centre capacity, up from 38 GW a year earlier [3]. The scenario is the published one that shows what a lag between demand and supply costs other customers, and it is not a forecast: 5 GW is about 39 TWh a year, more than AEMO's high case adds by 2036. Prices rise at every step of the range; 5 GW is the step at which the cost is clearest.

What the Commonwealth's legislation requires will decide whether the costs in this report are paid. Weaker requirements in one state would expose electricity users across the interconnected NEM: electricity is traded across state borders, so a Queensland exemption would not necessarily confine the consequences to Queensland households and businesses. If the law makes genuinely new renewable generation and storage, matched to each data centre's load and delivered with it, a binding condition of connection, and makes the data centre rather than other customers carry the cost of any lag, most of the price rise modelled here does not happen. If the law allows connection first and supply later, or exemptions that let a data centre run on the existing fleet, the costs fall on households and businesses in the years this report describes.

Table A: Estimated household price impacts without strong data centre energy legislation

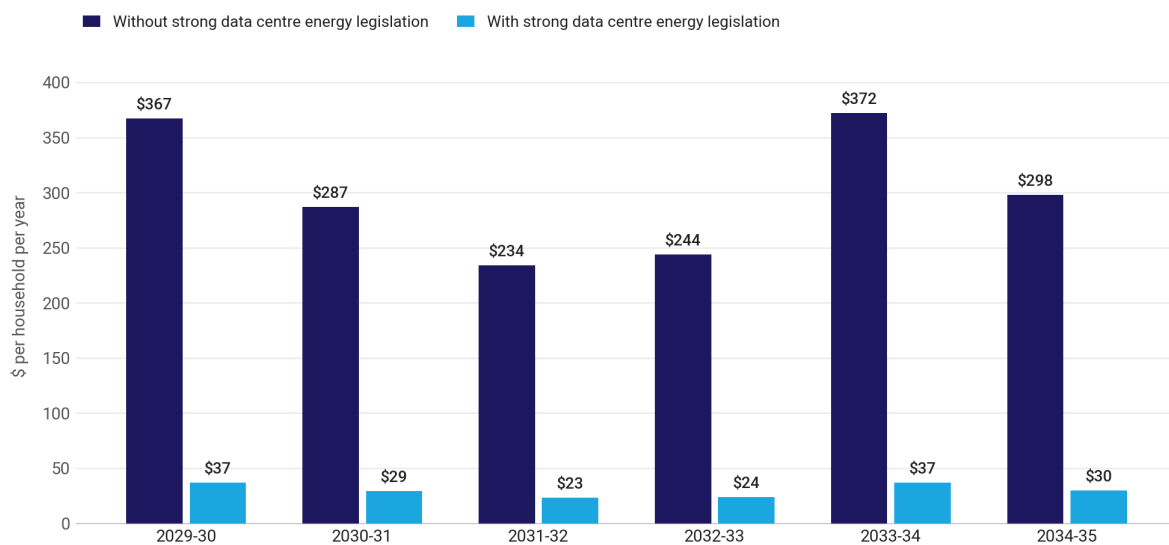
With 5 GW additional DC load	Household change in 2029-30 (\$)	Standard household, cumulative (\$)	All households, cumulative (\$bn)
New South Wales	29	543	2.05
Queensland	367	1,801	4.27
South Australia	74	661	0.51
Victoria	92	739	2.40
Four states			9.23

Note. Standard household: AER benchmark bill customer in each state (NSW 4,200 kWh a year; Queensland 4,600; South Australia 4,000; Victoria 4,000), full pass-through, 5% losses and 10% GST [4]. All households: ABS households × the AER's average grid usage per residential customer in each state's networks [5][8].

The Prime Minister and Federal Energy Minister have indicated their intention to require new data centres to commission genuinely new, firmed renewable energy to meet new demand, to underwrite new supply and to pay their full share of connection costs.

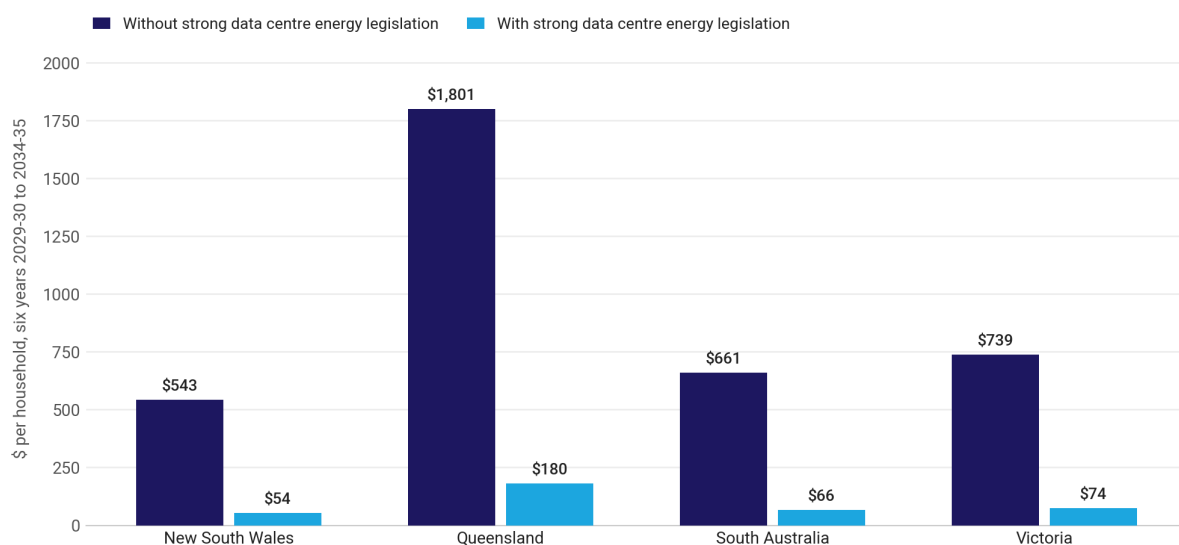
The Smart Energy Council’s position is that they must also carry the cost of any lag between their demand arriving and the new supply to serve it. Table A shows what households pay if that does not happen. To estimate how little remains if it does, the analysis applies the reduction found by the CEFC and Baringa, who modelled data centres arriving with matched renewables and storage: the 2035 wholesale rise falls from 26% to 3% in New South Wales and from 23% to 2% in Victoria, a roughly 90% reduction [6]. The “with strong legislation” series in Figures 1 to 3 applies that factor, 0.10, to every household figure. It is illustrative and comes from a different model.

Figure 1: Queensland benchmark household, extra cost each year, 2029-30 to 2034-35

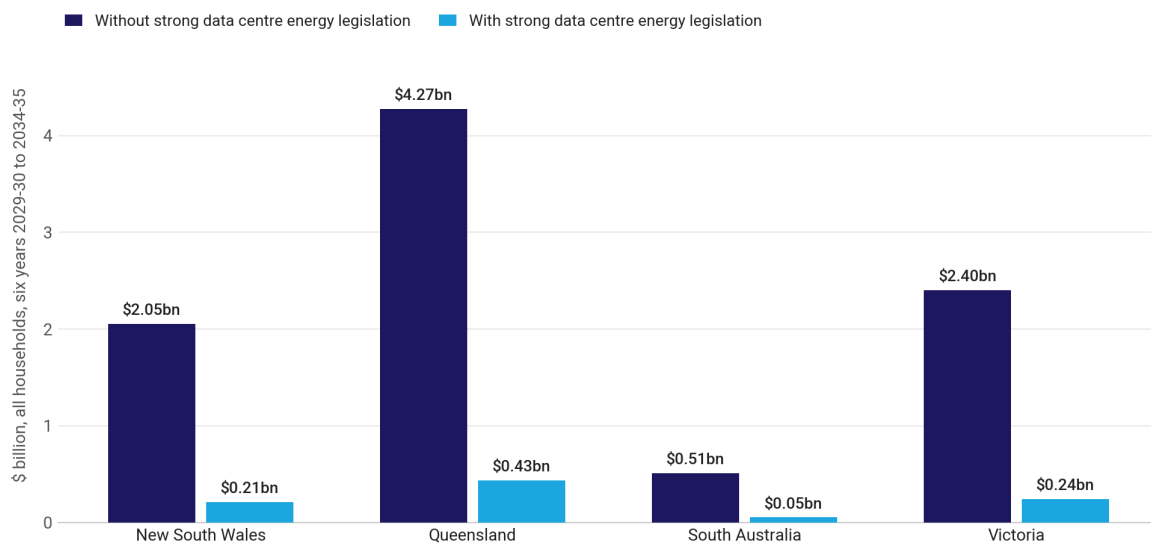


Source: Smart Energy Council four-state model, October 2026. Standard household: AER benchmark bill customer; full pass-through, 5% losses and 10% GST. “With” = “without” × 0.10 (CEFC/Baringa matched-supply case) [6].

Figure 2: Benchmark household by state, six-year cost, 2029-30 to 2034-35



Source: Smart Energy Council four-state model, October 2026. Standard household: AER benchmark bill customer; full pass-through, 5% losses and 10% GST. “With” = “without” × 0.10 (CEFC/Baringa matched-supply case) [6].

Figure 3: All households by state, six-year cost, 2029-30 to 2034-35


Source: Smart Energy Council four-state model, October 2026. Standard household: AER benchmark bill customer; full pass-through, 5% losses and 10% GST. "With" = "without" $\times$ 0.10 (CEFC/Baringa matched-supply case) [6].

1. Background

Data centre demand on the National Electricity Market is rising fast, and the forecasts keep catching up with it. AEMO's 2026 Electricity Statement of Opportunities (ESOO) puts data centre consumption at about 5 TWh in 2025-26, about 15 TWh by 2029-30 and 34 TWh by 2035-36, from 3% of grid supply to 13%. The 67 GW of connection capacity advised by network businesses is a pipeline, which AEMO says is not a demand forecast [3]. Each ESOO since 2024 has raised the forecast, and the 2026 edition also carries a high-growth sensitivity of 52 TWh by 2035-36 [3]. The forecast rests on information gathered between February and May 2026 and, as AEMO notes, understates Queensland: it does not include the 2.16 GW Zerra facility, announced in August with Anthropic as tenant from September, or Quinbrook's 800 MW Supernode. The pipeline in New South Wales, Victoria and South Australia has also increased.

A data centre can be built and energised in two to three years. If the wind, solar and storage to serve it take longer to plan, approve, build and connect, prices rise. Until that supply is online, the new load competes with existing customers for the same generation, and wholesale prices rise across the market, not only where the data centre sits. The CEFC and Baringa found that without matching new supply, New South Wales wholesale prices would be 26% higher in 2035, and 3% higher where renewables and storage are added alongside the load [6].

The Commonwealth is deciding its response now. On 15 July the Prime Minister announced a national framework under which large data centres put at least as much energy into the grid as they take out, underwrite new power supply and pay their full share of grid connection; the Government's September consultation paper added demand flexibility. At the National Press Club on 5 August, Minister for Climate Change and Energy Chris Bowen said the standard would be national, one that states and territories could add to but not water down, enforced with all the powers available to the Commonwealth, including legislation [9]. National Cabinet on 26 August

left room for gas firming and for exemptions through the Australian Energy Regulator, and Queensland and the Northern Territory want their state-owned generators to supply the load [10]. The Government aims to pass legislation early in 2027.

2. Modelled scenario

Wholesale prices are from ‘Load bearing’, September 2026 [1], a published independent market model. It adds 5,000 MW of data centre load on 1 July 2028, running flat at about a 90% load factor, on top of the data centre demand already in AEMO’s forecasts, with two thirds sited in Queensland and new generation and storage free to respond. The price rise is what customers pay while that response catches up [2].

Energy consumption is per the 2026 ESOO, Step Change scenario [3]. Households are ABS Series II projections [5]. The benchmark home is the AER’s default market offer customer, 4,600 kWh a year in south-east Queensland [4]. Household grid imports are ABS households multiplied by the AER’s customer-weighted average residential usage per network in each state [5][8].

The analysis makes four assumptions. The price rise in each state and year is the model’s 5 GW price less its no-new-load price for the same year.

The full rise reaches customers in the year it occurs. Households pay 5% losses and 10% GST on the rise. The market figures are wholesale only.

Three things the scenario is not. It is not a forecast: AEMO’s central case has about 15 TWh of data centre consumption in 2029-30, and 5 GW at 90% load factor is about 39 TWh a year on top of that [3]. It is not a model of any coal or gas plan: the model builds whatever supply is cheapest. It is not a bill forecast: it gives wholesale prices, converted here to household costs with the rest of the bill unchanged.

3. Results by state

Table 1: Results by state, 2029-30 to 2034-35

State	Extra wholesale cost, whole market (\$ billion)	Paid by users other than data centres (\$ billion)	Households, on grid imports, with losses and GST (\$ billion)	Benchmark home, six years (\$)	Benchmark home, 2029-30 (\$)
New South Wales	8.9	7.3	2.1	543	29
Queensland	19.9	19.9	4.3	1,801	367
South Australia	2.1	2.0	0.5	661	74
Victoria	9.1	7.6	2.4	739	92
Total	40.0	36.7	9.2		

Source: Smart Energy Council four-state model, October 2026; prices [2], consumption [3], households [5], benchmark usage [4]. Market columns are wholesale only, no GST. Household column: ABS households times the AER’s customer-weighted average residential grid purchases per network (NSW 4,403 kWh, Queensland 4,645, South Australia 3,814, Victoria 4,263; 2024-25 statements of reasons, held flat), times the price rise, losses and GST.

For a reference point, wholesale electricity prices in Queensland in 2026 have averaged about \$70 / MWh for the year.

4. Queensland figures

- Wholesale rise, 2029-30: \$164 less \$95 = \$69 a megawatt hour (5 GW and no-new-load prices, read from the published chart) [2].
- Benchmark home's grid purchases: 4.6 megawatt hours a year (AER, Energex network) [4].
- $\$69 \times 4.6 = \$317$ of extra wholesale cost.
- $\times 1.05 \text{ losses} \times 1.10 \text{ GST} = \$367$ on the bill.
- $\$367 \div \$1,988 = 18\%$ of today's benchmark bill [4]. Six years: $\$367 + \$287 + \$234 + \$244 + \$372 + \$298 = \$1,801$.

Wholesale electricity is \$725 of the \$1,988 bill, so a \$69 rise lifts the wholesale part by about half [4]. A new coal unit does not change these years: the cost starts in 2029-30, and Kogan Creek, the last coal unit built in Queensland, took three and a half years from commitment in May 2004 to opening in November 2007 [7].

5. Methodology notes

The costs above do not include changes to network charges, retail margins, costs passed through by business to the prices of goods and services, regional Queensland tariffs or state rebates, or any inflation adjustment, since the dollar year of the modelled prices is not published.

The market model places no limit on how fast new supply can be built, which makes the cost a low estimate. It does not model flexible data centre load, which would lower it.

AEMO's data centre forecasts have risen with each ESOO. The 2024 ESOO did not forecast data centres separately. The 2025 ESOO forecast 21.4 TWh by 2034-35 and put total consumption 15 TWh above the 2024 forecast because of data centre load. The 2026 ESOO forecasts about 15 TWh in 2029-30 and 34 TWh by 2035-36, with a high-growth sensitivity of 52 TWh [3]. Even so, 5 GW above the 2026 forecast is more than AEMO's own high case adds by 2036, so it is presented as a plausible stress test.

Conclusion

This report shows that weakening of, or exemptions to, strong federal data centre standards could drive up electricity prices in the states receiving them and across the National Electricity Market. Additional demand without sufficient new supply places pressure on wholesale prices throughout the NEM.

Data centres are an opportunity for Australia's economy and a test for its energy system. A well-designed renewable energy obligation can support growth in the digital economy while protecting households and businesses from higher electricity costs. Without that obligation, the costs in Table 1 fall on every other customer.

About the Smart Energy Council

The Smart Energy Council is Australia's independent peak body for the renewable energy industry, representing more than 1,000 organisations across solar, wind, battery storage, hydrogen, renewable manufacturing, transport, utilities and emerging clean energy technologies. Website: www.smartenergy.org.au

Media contact: editor@smartenergy.org.au | 0448 972 192

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THE INDEPENDENT BODY FOR THE SMART ENERGY INDUSTRY IN AUSTRALIA

LEVEL 4, SUITE 2, 10 RUDD ST, CANBERRA ACT 2601
PO BOX 2315, CANBERRA ACT 2601
TEL 02 6241 0171 EMAIL INFO@SMARTENERGY.ORG.AU
WEB SMARTENERGY.ORG.AU
ABN 32 006 824 148

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