

Footing the Bill

How hyperscale data centres could
increase electricity bills in Alberta

Technical backgrounder

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Summary

Meta is expanding its operations in Canada, having recently announced that it is investing in a new one-gigawatt data centre in Sturgeon County, Alberta, just north of Edmonton. Once operational, the facility will initially draw all its power from Alberta's electricity grid before transitioning to a combination of grid power and nearby natural gas generation.

While the project is expected to deliver local and provincial economic benefits and modest reductions in transmission charges, industry and electricity experts — including EPCOR, Direct Energy Marketing, the Alberta Electric System Operator, Capital Power and TransAlta — predict that tightening supply-demand conditions will put upward pressure on electricity prices. As the data centre will use a city-sized amount of power, the market impact of it drawing electricity from the grid until the power plant comes online is significant.

New analysis that we've done suggests that, for Alberta ratepayers, increasing energy costs will far outweigh decreases in transmission charges. We estimate that **over the next five years (2027–2031), the average Albertan household will pay an additional \$267 to \$462 per year for electricity** due to this data centre project.

The impact of Meta's data centre is likely already locked in, and under Alberta's planned and existing policies, future data centres would have similar impacts on electricity bills. To mitigate these impacts, we recommend that the government ensure that data centres pay their fair share for transmission infrastructure *and* electricity, especially when using grid power. Similarly, removing the red tape slowing down low-cost and quick-to-build renewables and energy storage would unlock investment, keeping prices low for industry and Albertans alike.

Context

On July 8, 2026, Meta announced that it would be investing \$13 billion building its first data centre in Canada, with Alberta as its chosen host. The Meta data centre will initially be powered entirely by Alberta's electricity grid, supported by a long-term energy supply agreement with Capital Power.¹ Then, following the commissioning of the adjacent Greenlight Electricity Centre, it will run on a combination of grid power and a new natural gas generation facility nearby. While the exact commissioning dates are not yet known, the agreement between Capital Power and Meta takes effect in the second half of 2028 (presumably as the data centre starts operations), and the Greenlight Electricity Centre is aiming to be online in the latter half of 2030, two years later.²

Jobs and economic development

The one-gigawatt (GW) data centre will be located in Sturgeon County, northeast of Edmonton, and, according to Meta, will support over 3,000 construction jobs and more than 300 ongoing jobs during operations. Meta will also be investing \$60 million in local infrastructure projects — primarily water and roads — while also providing direct funding for local nonprofits that support the surrounding community.³ The project will also contribute an estimated \$210 million per year to the province through natural gas royalties, electrical equipment levies, and lower shared grid costs, with an additional \$40 million in annual property taxes for Sturgeon County.⁴

Decreasing transmission costs

Once operating, the Government of Alberta estimates that the Meta data centre will lower the transmission portion of household electricity bills by up to 6%.⁵ This decrease is a result of the fixed transmission costs — paid by all electricity consumers, including data centres — being

¹ Capital Power, "Capital Power Enters Long-term Energy Supply Agreement with Meta in Alberta," July 8, 2026. https://www.capitalpower.com/media/media_releases/capital-power-enters-long-term-energy-supply-agreement-with-meta-in-alberta/

² Lauren Krugel, "Meta data centre in Alberta to start up ahead of adjacent Greenlight power plant," *Global News*, July 10, 2026. <https://globalnews.ca/news/11961683/meta-alberta-power-grid-greenlight-electricity-centre/>

³ Meta, "Breaking Ground on Meta's First Data Center in Canada," July 8, 2026. <https://about.fb.com/news/2026/07/breaking-ground-on-metas-first-data-center-in-canada/>

⁴ Government of Alberta, "Who benefits from data centre development?" <https://www.alberta.ca/datacentres/who-benefits.html>

Tristan Oram, "Sturgeon County mayor responds to criticism of lack of public consultation for data centre project," *St. Albert Gazette*, July 17, 2026. <https://www.stalbertgazette.com/local-news/sturgeon-county-mayor-responds-to-criticism-of-lack-of-public-consultation-for-data-centre-project-12544020>

⁵ Government of Alberta, "Will my power bill go up?" <https://www.alberta.ca/datacentres/power-bills>

spread over a larger base. For reference, in 2025 an average residential consumer paid approximately \$25 per month on transmission fees.⁶

Industry predictions on rate increases

Many Alberta electricity experts and industry players are predicting increased electricity prices as a result of the Meta project, especially during the two years before the on-site generation is energized, with the effect continuing as more data centres come online. For example, in their feedback to the Alberta Electric System Operator's (AESO's) Large Load Integration process, EPCOR noted that under the proposed rules and regulations, data centre proliferation will result in "higher prices for Alberta consumers, contrary to Government of Alberta messaging." Similarly, Direct Energy Marketing stated that additional data centre demand in Alberta would enable conditions that will "[expose] consumers to higher energy prices."⁷

In an article published in the *National Observer*, the AESO noted that data centres drawing electricity from the province's electricity grid "is anticipated to increase pool prices while reducing transmission costs." Alberta's largest power producers, Capital Power and TransAlta, predict that wholesale power prices will rise in the next couple years to as much as \$100 per megawatt hour (MWh) — more than triple the average price so far in 2026 — as a result of growing data centre demand.⁸ Power forward curves published by the Alberta Market Surveillance Administrator and TC Energy also show prices increasing over the coming years.⁹

Electricity price fluctuations of this magnitude are not unheard of in Alberta. Between 2022 and 2024 the average wholesale electricity price dropped from \$162/MWh to \$63/MWh, primarily as a result of new natural gas and wind power plants coming online, leading to loosening of previously tight market conditions.¹⁰ In other words, Albertans may see a reversal of this trend in the next couple of years as data centres soak up excess power from these new generation

⁶ Alberta Electric System Operator (AESO), 2025 *Transmission Rate Outlook*, 2. https://www.aeso.ca/assets/Uploads/TRO_Factsheet_2025-WEB.pdf

⁷ AESO, *Consolidated Written Feedback: Large Load Integration* (2026), 82. <https://aesoengage.aeso.ca/49943/widgets/210873/documents/171590>

Consolidated Written Feedback: Large Load Integration, 59-63.

⁸ Rory White, "Alberta electricity industry expects tripling of power prices from data centres," *National Observer*, July 20, 2026. <https://www.nationalobserver.com/2026/07/20/analysis/alberta-power-costs-data-centres>

⁹ Market Surveillance Administrator, *Wholesale market Report: Q2 2026*, 93-94. <https://www.albertamsa.ca/assets/Documents/Wholesale-Market-Report-Q2-2026.pdf>

TC Energy, "Power Market Update," (2026), 1. https://www.tcenergy.com/siteassets/pdfs/power/alberta-power-marketing/power-market-updates/2026/tce_market-update_june_2026.pdf

¹⁰ AESO, "Annual market statistics data file." <https://www.aeso.ca/market/market-and-system-reporting/annual-market-statistic-reports/>

facilities, re-tightening the market and increasing prices until additional generation is added to the system.

Analysis

Our analysis, presented below, estimates the net impact of the Meta data centre on a typical Albertan's electricity bill over five years (2027–2031). We compare the energy cost increase — driven by tightening supply conditions as the data centre connects to the grid, especially before the on-site generation is operational — and transmission cost savings, as highlighted by the Government of Alberta.

Wholesale versus retail electricity prices

In Alberta, consumers purchase electricity from the retailer of their choice. Competitive retailers offer contracts ranging from longer-term (three to five years) fixed-price contracts to variable-priced contracts that fluctuate monthly. There is also a default “regulated” rate for consumers that do not qualify for competitive rates or choose not to seek one out.¹¹ Critically, these rates are distinct but related to the wholesale price of electricity; consumers are sheltered from the hour-by-hour fluctuations inherent in Alberta's electricity market, but retail rates — some contract types more than others — follow a similar month-to-month pattern as the wholesale price (Figure 1). This means that while residential consumers will not directly pay the increased wholesale electricity price driven by the Meta data centre, they will likely see an increase in their retailer's electricity rate offerings reflected on their monthly utility bills.

¹¹ Utilities Consumer Advocate (UCA), “How to choose a retailer.”
<https://ucahelps.alberta.ca/residential/electricity/how-to-choose-a-retailer/>

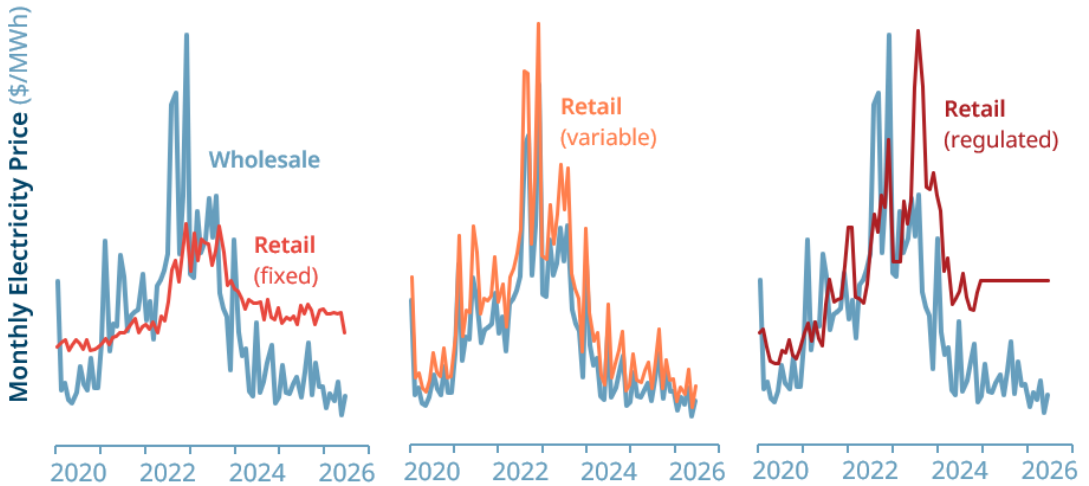


Figure 1. Comparison of wholesale and retail electricity rates in Alberta, 2020–2026

Data sources: AESO, Utilities Consumer Advocate¹²

Increasing Albertans' electricity bills

In 2025, the average Albertan household spent approximately \$1,700 on electricity, with energy costs making up the largest share (40%), followed by distribution (23%) and transmission charges (18%), rate riders and other administration fees (14%), and taxes (5%).¹³

For the purpose of this analysis, we assume that only transmission and energy charges will change as a result of the Meta data centre, holding all other costs constant. As discussed above, transmission costs will decrease, as the data centre will contribute to the grid costs shared by all consumers. On the other hand, energy costs will increase as market conditions tighten — especially while the data centre is drawing all its electricity from the grid.

Our analysis finds that over the next five years (2027–2031), transmission costs will decrease by about \$13 per household per year as a result of the Meta data centre, with maximum savings (up to \$29 per household per year) occurring before the Greenlight Electricity Centre starts operating. However, we also find that energy costs will increase by about \$282 to \$477 per household per year, depending on how often the data centre is operating during peak demand hours (Figure 2). As such, we estimate that **an average Albertan household will pay between \$267 and \$462 more per year between 2027 and 2031** as a result of the Meta data centre. This represents an increase of 15% to 25% over the base case.

¹² “Annual market statistics data file.”

UCA, “Historic Rates.” <https://ucahelps.alberta.ca/residential/rates/historic-rates/>

¹³ UCA, “Cost Comparison Tool.” <https://ucahelps.alberta.ca/cost-comparison-tool/>

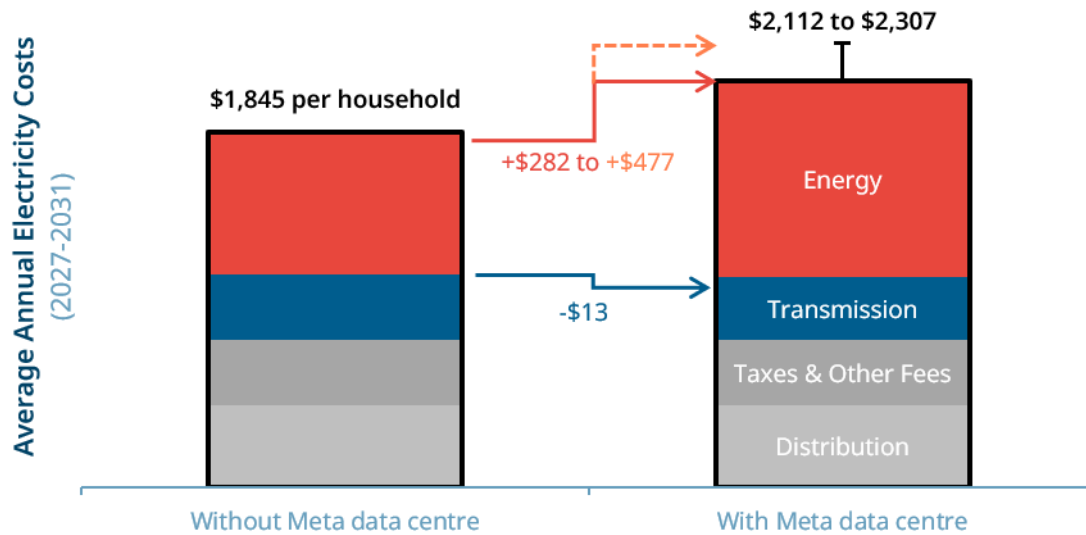


Figure 2. Estimated impact of the Meta data centre on household electricity costs, 2027-2031

Considerations for Alberta’s data centre policy development

Having received all its approvals, the Meta data centre project is very likely to proceed, along with the consumer cost impacts associated with it. However, there are considerations and adjustments that Alberta could (and should) make for future data centre policy design to avoid this pitfall in the future and make good on their guarantee that the cost of data centre “power, connections and infrastructure” will be footed by the companies, not Albertans.¹⁴

There are two specific actions that could enable further development of data centres within Alberta, while mitigating the impacts to household bills.

- **Ensure data centres pay the full cost of delivered energy**, not just transmission upgrades. For example, Quebec and Ontario are considering a separate rate class (or tariff) for data centres, while British Columbia is implementing a competitive bid process for new grid connections.¹⁵ These actions — combined with Alberta’s current approach of requiring data centres to pay the cost of grid and other infrastructure upgrades — would help to mitigate the impact of data centre-driven electricity demand on consumer bills.

¹⁴ “Will my power bill go up?”

¹⁵ Hydro Québec, “A new rate for data centres and a rate adjustment for blockchains to reflect the value of renewable electricity,” February 19, 2026. <https://news.hydroquebec.com/news/press-releases/all-quebec/hydro-quebec-proposing-regie-energie-new-rate-large-data-centres-adjustment-rate-cryptographic-use-applied-blockchains.html>

Government of Ontario, “Ontario Launches Data Centre Playbook,” August 13, 2026.

<https://news.ontario.ca/en/release/1007871/ontario-launches-data-centre-playbook>

Government of British Columbia, “Industrial Electricity Allocation Framework,” March 31, 2026.

<https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/electricity/industrial-electricity-allocation-framework>

- **Re-open the door to renewables and energy storage.** Until recently, Alberta was the top destination for wind and solar investment in Canada. However, multiple years of policy, regulatory and market uncertainty have created a hostile investment environment for renewables developers, leading to a 93% reduction in projects moving forward.¹⁶ Tech companies like Microsoft and Amazon were key to Alberta's previous growth in renewables, and they remain keen to procure additional renewable energy as part of their sustainability strategies. Growth in new renewables can be deployed quickly and keep electricity prices low, benefiting data centres and Albertans alike. However, this synergy would require changes to the AESO's proposed "bring your own generation" rules for data centres, which currently only allows natural gas generation to qualify. In other words, Alberta should embrace a "bring your own new clean energy + flexibility" (BYONCE+) approach, over its current "bring your own gas" one.¹⁷

The Pembina Institute recognizes that the work we steward and those we serve span the lands of many Indigenous Peoples. We respectfully acknowledge that our organization is headquartered in the traditional territories of Treaty 7, comprising the Blackfoot Confederacy (Siksika, Piikani and Kainai Nations); the Stoney Nakoda Nations (Goodstoney, Chiniki and Bearspaw First Nations); and the Tsuut'ina Nation. These lands are also home to the Otipemisiwak Métis Government (Districts 5 and 6).

These acknowledgements are part of the start of a journey of several generations. We share them in the spirit of truth, justice and reconciliation, and to contribute to a more equitable and inclusive future for all.

¹⁶ Will Noel, *Path of Most Resistance: Can Alberta build a credible alternate plan to reduce electricity emissions?* (Pembina Institute, 2026), 5-9. <https://www.pembina.org/pub/path-most-resistance>

¹⁷ David Pickup and Will Noel, *Bring Your Own Generation: Pembina Institute comments and recommendations*, (Pembina Institute, 2026), 2-4. <https://www.pembina.org/pub/whats-best-way-power-albertas-growing-data-centre-sector>