

Alberta's data centre regulations: guidance on power generation for large load facilities

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Key Takeaways

- Alberta is creating a pathway for data centre growth tied to new and underutilized generation, encouraging data centre proponents to support their power needs through dedicated generation, energy storage, or underutilized facilities to reduce pressure on the existing grid.
- Alberta Electric System Operator will play a central implementation role, with authority to make and amend ISO rules needed to operationalize the framework and manage reliability, adequacy, and system access issues, subject to approval of the Alberta Utilities Commission (AUC).
- The framework reflects broader economic and energy-policy priorities, aligning Alberta's data centre and electricity-market initiatives with provincial and federal objectives around investment, grid reliability and data sovereignty.

Overview

On June 9, 2026, Alberta filed the *Data Centre Regulation* (Regulation),^[1] creating a new framework for how data centres may connect to and operate within the province's electricity system.

The Regulation is intended to support data centre investment while addressing a core system challenge: large data centres can create significant new electricity demand, often on timelines that are faster than traditional generation and transmission planning cycles. These regulations, and forthcoming Independent System Operator (ISO) rules, govern the connection application process for "large loads," defined as transmission connected load facilities requesting 75 MW or more of Demand Transmission Service (DTS).^[2] While the Regulation focuses on data centres, the large load integration process proposed by the Alberta Electric System Operator (AESO) includes data centre and industrial load, but does not apply to energy storage, distribution load or distribution-connected load.

For proponents, the Regulation signals that projects will need to demonstrate how their electricity needs can be met without undermining grid reliability, affordability or system planning. In practice, this may require the concurrent development of new dedicated generation or energy storage, the use of underutilized facilities or other arrangements.

Why this matters

The Regulation comes as the federal and Alberta governments continue to emphasize economic growth, energy development, and infrastructure investment, including through the Canada-Alberta Memorandum of Understanding and recently issued Implementation Agreement.^[3] It also reflects growing interest in Canada, and Alberta in particular, as a potential location for data centre development^[4] alongside increasing attention to data sovereignty.^[5]

For market participants, the Regulation is a key piece of Alberta's broader electricity-policy agenda, which also includes the Restructured Energy Market (REM),^[6] ongoing transmission-policy reforms, Alberta's Artificial Intelligence Data Centre Strategy,^[7] and related federal-provincial initiatives. Together, these developments point to a more active policy environment for large-load projects and electricity-intensive digital infrastructure.

The grid challenge

Large-load projects, including data centres, require substantial continuous electricity supply and can place pressure on infrastructure that was not designed for that level or pace of demand growth.^[8] This creates a practical challenge for the AESO: enabling economic development while maintaining grid reliability.^[9]

The AESO launched its two-phase Large Load Integration Program in June 2025.^[10] Phase 1 concluded in November 2025 and focused on near-term integration issues. In September 2025, the AESO published data indicating that projected data centre load was outpacing new generation.^[11] The AESO also identified the need to ensure that large loads are integrated in a way that supports, rather than strains, the grid.^[12]

Phase 2 shifted the focus to longer-term solutions for the existing load-generation imbalance. Early stakeholder consultations emphasized the need for a faster and more predictable connection process, while also recognizing that large-load integration must be coordinated with existing infrastructure and future generation development.^[13] This regulation is largely consistent with the information provided by the AESO as part of the consultation process with the Large Load Working Group 2A.^[14]

Key features of the regulation

At a high level, the Regulation provides a market signal that encourages data centre proponents to pair large electricity loads with dedicated generation resources. This approach is intended to reduce reliability risks and preserve interconnection capacity.

The AESO will be central to implementation. The Regulation authorizes the AESO to make and amend ISO rules as necessary to achieve the Regulation's requirements and objectives.^[15]

subject to approval by the AUC.^[16] This rule-making pathway is consistent with the AUC's typical role as the approver of ISO rules, but is distinguishable from the process for REM rules, which grants approval power to the Minister directly.^[17]

Multiple data centre configurations are considered by the Regulation:

- data centres generally^[18]
- large data centres that require 75 MW or more of electricity,^[19] or a lower amount if grid safety, reliability and affordability may be at risk^[20]
- tethered data centres^[21]
- bridged data centres^[22]

The Regulation introduces the concept of “underutilized facilities.” Until now, the market discussion has focused on data centres being associated with generation that is “net new” since the last AESO connection limit assessment. Under the Regulation, the AESO may designate generating facilities or energy storage facilities as underutilized where they are operating below capacity and may be in a position to support increased load growth. The AESO may only make this designation where doing so does not compromise the reliability or adequacy of the grid. Further details regarding how this is assessed are expected to be included in forthcoming ISO rules.

Tethered data centres support arrangements where a proposed data centre is associated with (i.e., “tethered to”) new generation or energy storage that is designed to serve the full electricity supply needs of the data centre, which is consistent with the AESO's Phase 2 discussion of a “Bring Your Own Generator” (BYOG) model to align large-load growth with new supply.^[23] Under the Regulation, the AESO must prioritize its assessment of tethered data centres over other untethered data centres,^[24] which creates a regulatory and approval timing incentive for data centre proponents to plan for their own generation.

The Regulation also includes bridging provisions for tethered data centres to access grid-supplied electricity prior to its tethered generation coming online if certain criteria are met and subject to certain limits to be defined by ISO rules.^[25] The Regulation specifies that all tethered generating or storage units must be approved by the AUC under sections 11 or 13.01 of the *Hydro and Electric Energy Act*,^[26] and that transmission service may be provided to a bridged data centre for a maximum of three years.^[27] This time period for bridged facilities helps address the timeline constraints in data centre construction and allows data centres to operate prior to completion of tethered generation facilities. Data centres can be constructed in approximately 18 months, but the lead times for gas turbine generator procurement can extend power plant construction timelines to upwards of five years.

Data centre proponents and operators should note that the Regulation provides the AESO with the ability to manage load from bridged data centres. Section 10 requires the AESO to curtail supply to bridged data centres before all other load when the AESO determines there will be an inadequate supply of electricity. In a worst-case scenario, all large load data centres must be curtailed prior to the AESO curtailing other electricity consumers. Data centre developers will need to assess the supply reliability of the Alberta grid and determine if they can economically mitigate this risk by building uninterruptible power supply, energy storage, and other onsite emergency and redundant power generation options.

Finally, the Regulation grants the AESO discretion to establish criteria that a large data centre

must satisfy (e.g., municipal zoning approvals) to obtain system access.^[28] The Regulation also permits the AESO to aggregate two or more data centres under 75 MW that are co-located and share some ownership affiliation and consider them together as one data centre.^[29]

AESO engagement

On June 12, 2026, the AESO published a Guide to AESO Connection Requirements for Transmission-Connected Data Centres (TCDCs)^[30] which provides the technical requirements for TCDC connection to the Alberta Interconnected Electric System (AIES). These requirements are to be read in conjunction with ISO Rules and Alberta Reliability Standards, and Project-specific Functional Specifications.

The AESO held an engagement session on June 24, 2026, and published a Proposed BYOG Process on June 26 summarizing material presented at the session.^[31] Takeaways from this session include specifics on load applicability. Energy storage, distribution and distribution-connected load are not included in the BYOG process.

Proponents should note that the AESO may reduce the 75 MW threshold if needed.^[32] There is a significant increase in projects applying for 25–75 MW of DTS service, including at the 74.9 MW amount, possibly in an effort to circumvent the restriction.^[33] The AESO notes that this practice creates the same issue that the limit was designed to address. The AESO encourages large facilities to apply for the total load needed, and not revise applications based on the limit.

BYOG intakes are planned to occur approximately every nine months and will run in parallel with cluster studies. Application criteria for load and generation have been further defined in the draft checklist.^[34] Data centre proponents will be required to provide a letter from the municipality or county confirming proper zoning or an approved area structure plan to rezone.^[35] Proponents should also note that the DTS Commitment due in the study stage is proposed to be \$15,000 per MW of DTS capacity. This amount is invoiced at intake close and may be refundable.^[36]

Bridging is proposed to allow BYOG loads to receive some load before their generation for a maximum of three years.^[37] The initial total load available to be allocated for bridging is 1,600 MW and will be reassessed at each intake.

Written feedback on the BYOG Process must be submitted using the provided submission form by July 13 at 4:00 p.m. Mountain Time.^[38]

Conclusion

The *Data Centre Regulation* is an important signal for data centre proponents, generators, storage developers, and other market participants that Alberta is requiring significant data centre investment to proceed in coordination with electricity-system planning. Proponents should expect the details to be shaped through continuing AESO-led rule development. At the beginning of project planning, proponents need to consider how a proposed data centre will secure sufficient electricity supply that also supports grid reliability and system-cost objectives.

Following BYOG rollout in August, the AESO will conduct consultations on Phase 2B (ISO Tariffs) and Phase 2C (Grid Partners). Osler's market-leading Energy (Power) and Regulatory teams will continue to monitor developments relating to data centre development. We have the expertise to help guide project developers through the full life cycle of power generation and data centre projects.

[1] Alta Reg [117/2026](#) [PDF].

[2] Alta Reg [117/2026](#) [PDF], s. 2(1). See also AESO, [Large Load Integration Phase 2A BYOG Process Proposal](#) [PDF] (24 June 2026) at pp. 3, 34.

[3] Osler, [Canada and Alberta sign MOU that rolls back risk in Canadian energy and commits to broad new energy accord](#); Prime Minister of Canada, [Implementation Agreement for the Canada-Alberta Memorandum of Understanding of November 27, 2025](#) at s. 5.2.2; Prime Minister of Canada, [Canada-Alberta Memorandum of Understanding](#) [PDF] at p. 2.

[4] Osler, [Capital concentration and PE opportunity: the Canadian AI market in 2025](#).

[5] Osler, [Data sovereignty in light of the CLOUD Act: back to the future?](#)

[6] AESO, [Restructured Energy Market: Final Design](#) [PDF].

[7] Government of Alberta, [Alberta's AI Data Centre Strategy](#) [PDF].

[8] Osler, [Powering AI: Canada's evolving electricity grid connection policies](#).

[9] AESO, [Large Load Projects](#).

[10] Osler, [Powering AI: Canada's evolving electricity grid connection policies](#).

[11] AESO, [Update on Data Centres](#) [PDF].

[12] AESO, [Update on Data Centres](#) [PDF].

[13] AESO, [Phase 2A Working Group Meetings: What We Heard Summary](#) [PDF] (16 January 2026) at pp. 2-3.

[14] AESO, [Phase 2A: Large Load Integration BYOG Process](#).

[15] Alta Reg [117/2026](#) [PDF], s. 11(1).

[16] Alta Reg [117/2026](#) [PDF], s. 11(2).

[17] Alta Reg [51/2026](#) [PDF], s. 4; *Electric Utilities Act*, S.A. 2003, c. E-5.1, s. 20.01.

[18] Alta Reg [117/2026](#) [PDF], s. 1(1).

[19] Alta Reg [117/2026](#) [PDF], s. 2(1)(a).

[20] Alta Reg [117/2026](#) [PDF], s. 2.2.

[21] Alta Reg [117/2026](#) [PDF], s. 1(2)(f).

[22] Alta Reg [117/2026](#) [PDF], s. 1(2)(b).

[23] AESO, *Phase 2A Working Group Meetings: What We Heard Summary* [PDF] (16 January 2026) at p. 6.

[24] Alta Reg [117/2026](#) [PDF], s. 6.

[25] Alta Reg [117/2026](#) [PDF], s. 9.

[26] Alta Reg [117/2026](#) [PDF], s. 9(2)(a). See also *Hydro and Electric Energy Act*, R.S.A. 2000, c. H-16.

[27] Alta Reg [117/2026](#) [PDF], s. 9(5).

[28] Alta Reg [117/2026](#) [PDF], s. 7.

[29] Alta Reg [117/2026](#) [PDF], s. 3.

[30] AESO, *Guide to AESO Connection Requirements for Transmission-Connected Data Centres* [PDF].

[31] AESO, *AESO Large Load Integration Phase 2A: BYOG Process Update*. See also AESO, *Large Load Integration Phase 2A Proposed BYOG Process* [PDF] (26 June 2026).

[32] Alta Reg [117/2026](#) [PDF], s. 2(2).

[33] AESO, *Large Load Integration Phase 2A BYOG Process Proposal* [PDF] (24 June 2026) at pp. 34–38.

[34] AESO, *Large Load Integration Phase 2A Proposed BYOG Process* [PDF] (26 June 2026) at p. 9.

[35] AESO, *Large Load Integration Phase 2A Proposed BYOG Process* [PDF] (26 June 2026) at p. 6.

[36] AESO, *Large Load Integration Phase 2A Proposed BYOG Process* [PDF] (26 June 2026) at p. 17.

[37] AESO, *Large Load Integration Phase 2A Proposed BYOG Process* [PDF] (26 June 2026) at p. 23.

[38] AESO, *Large Load Integration Feedback – June 26 to July 13, 2026*.