

Alberta's Restructured Energy Market

A Modernized Market for Alberta's Evolving Grid



Alberta's electricity market is undergoing significant change to enhance reliability and maintain affordability as the province's electricity grid continues to be transformed by new types of supply, new sources of demand and changing technology. As demand increases and our energy mix evolves, we need a market framework that attracts investment, keeps power affordable and ensures reliable electricity for all Albertans.

The Restructured Energy Market (REM) is the AESO's response—developed in collaboration with policymakers, market participants and stakeholders. It modernizes Alberta's energy-only market to strengthen system performance, improve cost outcomes and support investment in both new and existing technologies. The REM builds on two decades of competitive market experience to power Alberta's future.

Leadership Statements



Hon. Nathan Neudorf
*Alberta Minister of
Affordability and Utilities*

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“The REM is a smart, forward-looking solution that delivers real benefits for Albertans. It supports competition, ensures long-term grid reliability, and protects consumers through strong market design. I commend the AESO and all stakeholders for shaping a market built to last, and look forward to continuing our work as we move towards initiating implementation in mid-2027.”



Aaron Engen
*President and CEO,
Alberta Electric System
Operator*

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“Our new market design marks a major milestone in Alberta’s electricity sector. It reflects our shared commitment to a reliable, affordable and investment-ready market that serves Albertans today and prepares for the future. It strikes the right balance between competing interests to deliver a practical design in the public interest. I sincerely thank AESO staff, industry stakeholders and all contributors whose expertise made this possible.”

What the REM Will Achieve

The REM updates Alberta's electricity market by enhancing the current energy-only design with new tools, pricing systems and reliability services. It preserves competitive market principles while improving flexibility, affordability and performance.

Enhance Grid Reliability

As more renewables come online and power demand evolves, Alberta's grid must become more responsive and flexible. The REM improves reliability through:

- A **new real-time ramping product** that rewards flexible resources for balancing supply and demand
- Better **congestion management** and real-time operational control enabled by a more sophisticated dispatch solution (security-constrained economic dispatch)
- **Higher offer and price caps** to attract electricity from neighbouring jurisdictions and encourage Albertans who can adjust their usage to reduce demand when supply is limited
- An **enhanced reliability unit commitment process** to ensure additional power is online if needed

These changes help ensure Albertans have access to electricity even during peak demand, emergencies or rapid system changes.

“ INDUSTRY PERSPECTIVES

“We thank the AESO for its extensive engagement with industry stakeholders in shaping the new REM design. The consultation process was open, collaborative, and constructive, ensuring that a broad range of perspectives were considered. We look forward to reviewing the details of the REM and to continued engagement with the AESO as the focus shifts to rule development and implementation of the new market.”

Mark Poweska, President and CEO, ENMAX

Deliver Affordability

The REM is designed to ensure electricity remains affordable while enabling necessary investments by:

- Encouraging competition and innovation among market participants
- Supporting greater opportunities for **demand response** and for consumers to take part in new market opportunities
- Fairly **sharing the cost of grid reliability** between consumers and generators that contribute to system instability
- Implementing strong market power mitigation measures, including:
 - A **Scarcity pricing** curve that allows prices to rise beyond offer caps only when dispatchable supply is limited
 - A lower **secondary offer cap of \$400/MWh** for companies with $\geq 5\%$ market share which is triggered when market pricing has allowed fixed costs of a hypothetical unit to be recovered

These measures increase market efficiency and balance consumer protection with long-term reliability.

Attract Investment

The REM supports Alberta's growing and changing grid by creating stronger investment signals and market opportunities. Key measures include:

- Introducing a **new ramping service product** which increases revenue available to flexible resources
- Implementing **locational marginal pricing** to show where new investment is most valuable
- Adjusting market price caps and floors to better reflect the real-time value of electricity

These enhancements align Alberta's market design with other jurisdictions familiar to investors, helping attract investment in needed technologies.

Key Features of the REM

Locational Marginal Pricing

Locational Marginal Pricing (LMP) ensures electricity prices vary by location based on real-time grid conditions, including system line losses. This helps guide investment, reduce congestion and make better use of existing infrastructure. Most consumers will continue to pay a single Alberta-wide price. Eligible large customers will have a one-time option to choose to pay their local price instead.

Pricing Framework

- Energy market offer cap: \$1,500/MWh, increasing to \$2,000/MWh in 2032
- Overall price cap: \$3,000/MWh, governed by scarcity pricing curve
- Price floor: remains \$0/MWh, dropping to -\$100/MWh in 2032

New Real-Time Ramping Product

This is a new reliability service to compensate generators that can quickly ramp up their output, improving grid stability during real-time changes. The cost of this new reliability service will be shared between consumers and generators, based on the extent to which each causes the need for this service.

“ INDUSTRY PERSPECTIVES

“The REM is modernizing Alberta’s electricity market by unlocking signals for energy storage resources. By bringing in best practices from other electricity markets such as LMP, ramping reserves, and stronger price fidelity for flexible supply and demand, the qualities of energy storage will be more efficiently leveraged to help Alberta produce affordable and reliable electricity.”

Justin Rangooni, President & CEO, Energy Storage Canada

Market Power Mitigation

Market power mitigation ensures that when there is limited competition, generators cannot use market power to maintain prices above fair levels. These rules protect consumers while allowing cost recovery to attract investment.

Enhanced Day-Ahead Market for Operating Reserves

Expanding participation eligibility to more facilities, along with hourly and simplified procurement, will increase competition in Alberta's existing day-ahead market for operating reserves.

Reliability Unit Commitment

If forecast supply is insufficient, the AESO can trigger the reliability unit commitment process to turn on slow-to-start power plants in advance—ensuring reliability with minimal market disruption.

Enhanced Dispatch and Settlement

More advanced IT solutions, including security-constrained economic dispatch, will help ensure reliable grid operations and dispatch as conditions become more complex.

Starting in 2032, the system will settle payments more often to align with dispatch instructions which will make price signals clearer and more attractive to flexible generators and demand response.

Support for Existing Investors

To ease the transition, temporary financial transmission rights will offset congestion pricing impacts for generators that made investments under the current market framework. These will be phased out over eight years. Long-term financial transmission rights will be discussed through engagement in fall 2025.



How the REM Benefits Albertans

Benefit

What It Means

A More Reliable Grid

New services and operational tools enhance power availability when and where it is needed.

Representative Costs and Prices

More granular market prices which better reflect supply availability and allocation of grid costs to those who cause them.

Efficient Infrastructure

Improved market signals reduce unnecessary grid builds and optimize the system.

Investment-Ready Market

Clearer pricing and product signals attract long-term private investment.

“ INDUSTRY PERSPECTIVES

“This represents a significant milestone in the restructuring of Alberta’s electricity market. We’ve valued the opportunity to work alongside the AESO and other industry stakeholders through this collaborative process. Access to affordable, reliable power underpins Alberta’s ability to attract investment, create jobs, and keep our industries competitive in a global market. As a leading voice for industrial consumers, we remain committed to working toward a sustainable market design that prioritizes affordability, drives competitiveness, and delivers long-term benefits for all Albertans.”

Megan Gill, Executive Director, Alberta Direct Connect Consumer Association

A Collaborative Design

How We Got Here

The REM's design process has been highly collaborative and transparent, ensuring the market framework reflects the interests and needs of all Albertans. From the beginning, the AESO prioritized timely communication, extensive stakeholder involvement, and responsiveness to feedback. Through this approach, over 230 organizations contributed their expertise and insights which helped identify priorities like clear investment signals, balanced market power protections, price transparency, and fair cost sharing.

To achieve these goals, the AESO established working groups, engaged expert consultants for modelling and analysis, and refined core design elements such as locational marginal pricing, market power mitigation, day-ahead markets and reliability unit commitment triggers.

Engagement by the Numbers (Q3 2023 – Q3 2025)

12

**Information
Sessions to Update
Albertans**

300+

**Hours of
Structured
Collaboration**

270+

**Written Submissions
Received and
Reviewed**

All engagement materials were published via AESO Engage, ensuring transparency and open access.

Reviewed by Independent Experts

The AESO engaged independent external experts to review the REM design. Their findings indicate that the design is reasonable and sets the market on a path to achieving its desired outcomes.

- ECCO International, a market design consultant, reviewed the REM design and compared it with other energy markets. Their report confirmed that the REM design is reasonable, reflects sound market principles and aligns with the best global practices.

“ECCO’s assessment of the overall REM design is that it is reasonable and technically robust and meets the objectives set forth by the AESO.”

ECCO International (August 2025), Independent Evaluation of the AESO REM Design

- MPA, an investment advisor, consulted financial institutions to understand their views on how the REM supports or hinders investment. The report shows that the financial sector emphasizes the importance of the REM providing clarity, certainty and confidence to sustain private capital in Alberta’s energy sector.

“The feedback summarized in this report reflects a constructive tone and demonstrates general support for the AESO’s efforts to improve investment signals through market reform.”

MPA (August 2025), Creditor Perspectives on the Alberta Electrical Power Market and the Independent Evaluation of the AESO REM Design



What is Next

The AESO will continue working with stakeholders to support implementation:

- **Fall 2025:** Engagement on ISO rules and operational details, while continuing to progress Optimal Transmission Planning
- **Mid-2027:** Implementation of the Restructured Energy Market design begins

The transition will be carefully managed to ensure industry readiness and minimize disruption.

For updates, visit **aeso.ca/rem**



“ INDUSTRY PERSPECTIVES

“The REM high level design is the culmination of extensive work and collaboration undertaken by the Government, AESO, and industry stakeholders over more than a year. It is a step forward in Alberta’s market design to meet the challenges of operating a reliable electric system that is decarbonizing and integrating unprecedented levels of new renewable generation supply. Thank you for the commitment from the AESO to work collaboratively with industry on the opportunities and challenges facing the electricity sector in Alberta.”

John Kousinioris, President, Chief Executive Officer, and Corporate Director, TransAlta Corporation

Thank You

The AESO team sincerely thanks everyone who contributed to the development of the REM.

In particular we would like to thank Minister Nathan Neudorf, Ministry of Affordability and Utilities staff, industry stakeholders and associations, consumer groups, and technical experts whose engagement and feedback helped shape a design that reflects Alberta's needs and priorities.

The REM is the result of a shared effort—built on transparency, collaboration and a collective commitment to delivering a reliable, affordable and investment-ready electricity market for Alberta's future. This commitment will remain important as we move into the next stages—developing and implementing new rules, upgrading IT systems and helping the industry get ready for the new market.



