

September 6, 2024

RE: AESO's initial approach to the Restructured Energy Market technical design

SUMMARY

On July 3, 2024, the Minister of Affordability and Utilities (Minister) directed the Alberta Electric System Operator (AESO) to develop a technical design for a Restructured Energy Market (REM).¹

While the existing market framework functioned well, changes in the generation fleet have led to significant and widespread challenges. With a much higher proportion of intermittent renewable generation, pool price variability has increased substantially. In periods where intermittent renewable generation is unavailable, sustained periods of high prices have been observed, leading to higher average prices.²

Consistent with the principles of fair, efficient, and open competition, the scope of the Minister's direction letter was broad and included most near-term operational features common to restructured electricity market designs in the United States. These features include a day-ahead market, a scheme for market power mitigation, security-constrained economic dispatch, co-optimization of energy and ancillary services, and shorter settlement intervals, as well as the potential for a different price floor and ceiling. They are almost entirely reflective of best practices in other jurisdictions. The MSA acknowledges that maintaining a province-wide uniform price for electricity creates significant market design and enforcement issues.

It is the MSA's strong view that Alberta should implement a modern electricity market design that incorporates best practices and decades of learning about electricity markets from the United States, and begin the REM consultation with consideration of modern and proven practice in comparable jurisdictions. There is vast experience with these markets – how to design them to deliver reliable and competitive electricity supply, how to operate them, how modern software works, how market participants conduct themselves, and how investors form expectations about price, revenue, and dispatch instructions that are outputs from them. Alberta can take advantage of and benefit from the work these jurisdictions put into planning and operating congested grids, coordinating day-ahead and real-time operations (including unit commitment and coherent financial settlement), integrating renewables and storage, and coordinating the electricity system with the natural gas system and market.

Rather than beginning its market design consultation from a proven foundation, the AESO has instead proposed a range of bespoke market design options. Some of the seemingly preferred

¹ [Letter from the Minister to the AESO](#) (July 3, 2024).

² [MSA Advice to support more effective competition in the electricity market: Interim action and an Enhanced Energy Market for Alberta](#) (December 21, 2023). See sections 2 and 3.

options, and in some cases the entire set of considered options, are only incrementally different from Alberta's current market design which, as indicated above, needs to change. It is the MSA's opinion that there is before us a generational opportunity to maintain the principles of fair, efficient, and open competition while breaking away from past market design compromises that were accepted for the sake of near-term feasibility. This would be fully within the scope of the Minister's direction letter, and would save ratepayers and the public considerable time and resources.

While the MSA's main concern is the missed opportunity to base the REM on proven best practices in comparable jurisdictions, several specific additional comments are provided below.

THE REM SHOULD NOT BE BASED ON THE MSA'S INTERIM RECOMMENDATIONS

The above-noted compromises that would be maintained in the proposed REM include the interim measures recommended by the MSA³ related to market power mitigation and unit commitment that are currently being implemented, and remain before the Alberta Utilities Commission for review. These measures, when recommended, were only ever intended to be implemented in the short-term, to sustain the market while broader changes were being considered and made. The MSA's recommendation paper was clear in this respect, stating that if broader change "could be implemented expeditiously, the MSA would not have recommended interim measures."⁴

The proposed market power mitigation scheme is based on the MSA's interim recommendations. First, the proposed scheme is a substantially relaxed version of the interim market power mitigation scheme and the AESO has provided no indication about how meaningful it would be. More importantly, the interim recommendation was made in the first place because a degree of protection against recently observed excessive market power was warranted in the near-term and its implementation was feasible. The MSA was clear in its recommendation that the day-ahead market should incorporate a market power mitigation scheme that replaces the interim rules.⁵ The REM does not appear to consider doing this. Further, while we believe that a path exists towards the efficient implementation of a market power mitigation scheme in the day-ahead market, it requires collection and use of three-part offers common in the United States – another common design feature missing from the REM.

THE ROLE OF STRATEGIC BEHAVIOUR

The Minister's direction letter indicates that the price of energy will continue to be determined by the strategic offers of market participants, while using market power mitigation to limit the potential for excessive exercise of market power. The AESO appears to be of the view that this means certain modern elements of electricity market design would be difficult to apply to Alberta, e.g., optimization models that rely on three-part offers.

³ Ibid. See recommendation 1 therein.

⁴ Ibid. See page 7.

⁵ Ibid. See section 3.4, page 40.

The MSA disagrees with this view. It is not the case that a market is competitive because a public agency makes it so. Instead, a market is competitive if there is sufficient rivalry among its participants, responsiveness from consumers and traders, and new entry is possible. Alberta's electricity market policy has long been rooted in the principles of fair, efficient, and open competition. While this has been challenged over time, there is nothing in the Minister's direction letter that suggests that this policy will change.

THE REM MAY INADVERTENTLY UNDERMINE CONFIDENCE, INCLUDING INVESTOR CONFIDENCE, IN ALBERTA'S ELECTRICITY MARKET

It is unlikely that change within the proposed scope of REM will fully resolve the operational issues outstanding in Alberta's existing market, including efficient implementation of a unit commitment process that requires a proper day-ahead market to implement.

With the outstanding market issues unresolved, it is unlikely that a bespoke market design would be stable in the sense of it being expected to persist. This may undermine confidence in Alberta's electricity market, including the confidence of investors considering making investments in long-lived assets, because it means that further change to the market design will be necessary. As these changes are inevitably to be in the direction of modern electricity market design practice in the United States, the AESO should bypass the bespoke options under consideration and propose an electricity market design with features that have been proven to work.

COMPLEXITY OF MODERN ELECTRICITY MARKET DESIGN

The MSA understands that a number of electricity market participants have claimed that a modern electricity market design along the lines of those that exist in restructured markets in the United States would be needlessly complex.

It is a fundamental tenet of market design that the market must reflect the physical characteristics of the power system. As the complexity of the power system increases, it is necessary that the market design evolve with it. Further, most active participants in Alberta's wholesale electricity market are sophisticated and capable of adapting. Some are active in other jurisdictions and therefore already have staff who fully understand these issues.

Andrew Wilkins, Director, Market Assessment, would be happy to make himself available to address any questions the AESO may have regarding the concerns noted above.

Derek Olmstead
Administrator & CEO
Market Surveillance Administrator