MARKET SURVEILLANCE ADMINISTRATOR

October 20, 2025

RE: Proposed REM ISO rules

Further to the AESO's request for comment on the proposed REM ISO rules released on September 4, 2025,[1] and the Stakeholder Technical Session held on October 9, 2025, the MSA provides the following comments.

The AESO requested comments on whether the rules are "clear and concise," "complete (to the extent possible)," "practically implementable," and "consistent with the statutory scheme."[2] The MSA has identified areas where further consideration by the AESO would be beneficial. These include the use of information documents, discretionary actions by the AESO, subjective requirements and conditions, drafting errors and omissions, and implementation concerns.

The MSA's comments assume that the design details specified in the Restructured Energy Market Final Design published on August 27, 2025,[3] (REM Final Design) are final.

USE OF INFORMATION DOCUMENTS

The REM ISO rules contemplate the use of information documents (IDs) or "methodological" information documents (MIDs) to "capture how a requirement in a rule needs to be achieved" and "for operational process content that is too detailed to include in a rule."[4] The MSA is concerned that reliance on IDs and MIDs may create issues of certainty and enforceability. To the extent that IDs and MIDs are used to create requirements not contained within the REM ISO rules, these requirements would not be authoritative and would therefore not be enforceable.

Notwithstanding the AESO's assertion that it "would not be permitted to arbitrarily change methodological ID content,"[5] the MSA is concerned that leaving important details outside of ISO rules would reduce certainty and confidence as changes could be made without appropriate oversight. A notification period with an opportunity for market participants to provide feedback on changes is not a substitute for the oversight required for ISO rules amendments. Accordingly, the MSA encourages the AESO to ensure that the REM ISO rules include all necessary authoritative provisions.

[1] Proposed REM ISO rules (September 4, 2025).

[2] Stakeholder Technical Session presentation (October 9, 2025), slide 10.

[3] Restructured Energy Market Final Design (August 27, 2025).

[4] Stakeholder Technical Session presentation (October 9, 2025), slide 20.

[5] Ibid.

The following non-exhaustive list outlines instances where core design elements are absent from the REM ISO rules:

- Section 103.6, *ISO Fees and Charges*, indicates that the methodology for cost allocation for 30-minute ramping reserve will be published on the AESO website. This is a foundational design issue that should not be subject to change through the AESO's MID process.

- Section 212.8, *Issuing Dispatches and Directives for Operating Reserve*, indicates that the methodology for determining the activation order for issuing dispatches for standby operating reserve will be published on the AESO website. This methodology does not articulate the principles that will be used in the activation order. Additionally, the order and procedure for directing contingency reserves should also be clearly set out in the REM ISO rules.

- Section 213.3, *Secondary Offer Cap*, indicates that the methodology for determining the reference generating unit parameters is not included in the rule and the resulting parameters that apply for up to five years will have no oversight. This approach stands in contrast to the *Market Power Mitigation Regulation*, where the parameters were explicitly approved by an authority other than the AESO.

- Section 214.1, *Reliability Unit Commitment*, indicates that the methodology for determining the anticipated supply cushion will be published on the AESO website. The current version of the rule (Section 206.2, *Interim Supply Cushion Directives*) establishes several details on the inputs that need to be addressed, while the proposed rule removes this detail and does not establish a principle, objective, or standard that would guide the development of the methodology.

- Section 214.3, *Real-Time Market Pricing*, indicates that the methodology for determining the pricing node for each pool asset will be published on the AESO website. The rule provides no guidance or principles for how pricing nodes will be defined, and the proposed authoritative definition for pricing node only states that it is where a locational marginal price is determined.

- Section 214.4, *Reference Levels*, indicates that a list of technology types and the cost formulas for those technology types will be published on the AESO website. The proposed definition for "reference level cost formula" refers to variable costs, or, in the case of hydroelectric or energy storage resources, opportunity costs. However, there are no further guidelines for the technology types or costs that the AESO must incorporate.

In contrast to the prior examples, Section 214.2, *Dispatch and Pricing Algorithm*, establishes the clear objective of minimizing overall costs, and specifies all the inputs and outputs to be addressed in the methodology. Further, Section 213.4, *Demand Curves and Violation Relaxation Limits*, includes the methodology for calculating the uncertainty portion of the 30-minute ramping reserve

demand curve in Appendix 1. In the MSA's view, this approach is essential, as it provides greater clarity and certainty.

DISCRETIONARY ACTIONS

The proposed REM ISO rules grant considerable discretion to the ISO in respect of its performance of important actions when prescribed conditions are met. Given the impact on market outcomes from the AESO's actions, without clear, predictable requirements, confidence in both the market and reliable operations will be undermined.

The following non-exhaustive list outlines instances where excessive discretion is granted to the ISO in the REM ISO rules:

- Section 103.15, *Restructured Energy Market Transition*, allows the ISO to establish certification requirements as eligibility requirements for the purpose of registration, but does not require the ISO to certify a market participant that has successfully completed a market system trial. A refusal to provide certification following a successful market system trial would restrict participation and competition in the market. Furthermore, the rule does not specify that market system trials will be required by all (or any) market participants.

- Section 103.15, *Restructured Energy Market Transition*, permits, but does not require the ISO to determine that a market transition error has occurred if the conditions for such an error are satisfied. Similarly, if the ISO determines that a market transition error has occurred, the ISO is permitted to invoke a state of market suspension or limited market operations but is not required to do so. It is unclear under what circumstances such discretion would be appropriate and how these provisions are meant to coincide with Section 214.7, *Limited Market Operations and Market Suspension.*

- Section 103.15, *Restructured Energy Market Transition*, allows the ISO, based on only its own determination, to retire any ISO rules. This authority should be limited to only those rules that are superseded by a replacement REM ISO Rule.

- Section 210.5, *30-Minute Ramping Reserve Qualification and Performance Standards*, requires a pool participant for a sink asset to apply to the ISO if they wish to qualify their asset for 30-minute ramping reserve. However, in contrast to source assets, the ISO "may" qualify a sink asset, even if all of the eligibility criteria are satisfied. A decision to not qualify an eligible sink asset would limit participation and competition for the provision of 30-minute ramping reserve.

- Section 212.8, *Issuing Dispatches and Directives for Operating Reserve*, changes the requirement to issue directives in the circumstance where the ISO determines that the delivery of additional real power from operating reserves is required to ensure the safe and reliable operation of the interconnected electric system from a "must" obligation in the current version of the rule to a discretionary "may." Once the ISO has determined that the preconditions for an action have been met, taking the action should not be discretionary.

- Section 214.1, *Reliability Unit Commitment*, sets out the approach to committing long lead time assets in response to an anticipated supply cushion at or below 0 MW. Section 5(1) provides that the ISO "may" issue unit commitment directives to minimize the anticipated supply cushion deficit, whereas the analogous ISO rule (206.2), states that the ISO "must" minimize an anticipated supply cushion deficit. Furthermore, the "may" in Section 5(1) could also be interpreted as applying to subsection (b) that requires the issuance of unit commitment directives to be according to relative economic merit, meaning the current drafting of the rule would allow the ISO to choose not to select units based on relative economic merit. It is important that the AESO's actions in response to an anticipated supply cushion deficit be clear and predictable.

SUBJECTIVE REQUIREMENTS AND CONDITIONS

In its experience conducting market surveillance, the MSA has found that clear, objective requirements promote certainty, fairness, and administrative efficiency. While the MSA recognizes that some requirements require flexibility to manage uncertain circumstances, requirements should be made concrete wherever possible.

The following non-exhaustive list outlines subjective requirements and conditions that should be reconsidered in the REM ISO rules:

- Section 103.15, *Restructured Energy Market Transition*, contemplates the ISO's approach to administering a market transition error. Subsection 5(1)(b) indicates that the ISO may determine that a market transition has occurred if "the failure cannot be resolved within a reasonable period of time." Subsection 5(3)(b) requires the ISO to notify market participants of the state of market suspension or limited market operation "as soon as practicable" but similarly does not include a bound on the timing of this notification. Subsection 5(4) requires the ISO to notify market participants of the ISO's plan to restore operation of the restructured energy market once the ISO determines that a market transition error has been remedied, but without a timeline for this notification. Subsection 5(5) permits the ISO to bring back into effect sections or subsections of the REM ISO rules or retire sections or subsections of the ISO rules "upon reasonable notice to market participants." Each of these provisions would benefit from more specificity in the timing of these actions.

- There are many requirements for notification or action "as soon as practicable" in the rules, including subsections 212.11 2(3), 213.1 10, 213.2 5(2) and 6(1), 213.2 9(1), 213.6 3(2) and 4(3)(a), 214.1 3(2)(b), 4(2)(b), and 6, 215.2 4(1), and 215.3 4(1). The MSA notes that certain similar requirements specify time requirements. For instance, Section 213.2, *Real-Time Market Restatements*, requires a restatement be submitted "no later than 20 minutes" after the beginning of an operational deviation. The MSA encourages the specification of timelines for these requirements, wherever possible.

- Section 214.1, *Reliability Unit Commitment*, sets the discretionary requirement to "minimize the deficit to the extent reasonable for the safe, reliable, and economic operation

of the interconnected electric system" without giving any guidance to test whether an action met this standard.

- Section 214.2, *Dispatch and Pricing Algorithm*, states that the ISO may use the "best data available" to determine prices when the real-time dispatch algorithm has not successfully run. It is not clear how this ability interacts with the procedure outlined in subsection 10(3), and, by extension, Section 214.7, *Limited Market Operations and Market Suspension*. The substantive difference between when the real-time dispatch algorithm does not successfully run and when it produces erroneous schedules and prices is not clear.

- Section 214.2, *Dispatch and Pricing Algorithm*, sets the standard of a "material change" to determine whether to issue dispatches based on the current or previous schedules. The threshold for a material change is not established. Similarly, the threshold is not established for when the ISO should suspect erroneous schedules and prices in accordance with subsection 10(3).

- Section 215.4, *Price Validation and Correction*, requires the ISO to correct a price when it "becomes aware of a material error." However, the threshold for a material error is not established.

DRAFTING ERRORS AND OMISSIONS

Through its review of the REM ISO rules, the MSA has identified several categories of possible drafting errors and omissions that it wishes to bring the AESO's attention. This is not meant to be an exhaustive list of proposed editorial changes.

- Section 210.4, *Automated Dispatch and Messaging System*, no longer applies to pool participants providing ancillary services, yet other rules do not specify through what tool the dispatch of ancillary services (other than operating reserves) will be received.

- Section 212.1, *Regulating Reserve Technical Requirements and Performance Standards,* and Section 212.2, *Spinning Reserve Technical Requirements and Performance Standards*, are revised to refer to Section 503.6, *Frequency & Speed Governing*, for the configuration of the asset's governor. However, Section 503.6 does not include an equivalent to the current subsections 3(1)(b)(iv), 3(1)(b)(vii), and, in the case of regulating reserves, 3(1)(b)(viii). Further, the requirements in Section 503.6 only apply to assets 10 MW or larger, despite the reduction of minimum asset size for operating reserves to 1 MW. Sections 212.1 and 212.2 also include an Appendix which duplicates the frequency trip settings in Section 503.6. In the case of Section 212.1, the visualization appears to represent the Over Frequency Requirement incorrectly and is inconsistent with the appendices of Sections 212.2 and 503.6.

- Section 214.2, *Dispatch and Pricing Algorithm*, specifies that the Alberta load price and reference bus price will be determined using the weighted average of locational marginal prices. However, it is not stated that the weighting factor will be load, as outlined in the

REM Final Design. Further, subsection 3(3) of Section 214.3, *Real-Time Market Pricing*, suggests that multiple sink assets could be assigned to the same pricing node. It is not clear from Section 214.2 or the REM Final Design whether the Alberta load price will be calculated using weight assigned based on all load at that pricing node or only the portion of load that has registered to receive the Alberta load price.

- Throughout the REM ISO rules, terms have been introduced but left undefined or have been only partially replaced with updated terms (e.g. “energy market”, “operating hour”, “system marginal price”, “R30”, “payment default charge”).

IMPLEMENTATION CONCERNS

The MSA has also identified a non-exhaustive list of potential implementation concerns, where the plain language of the proposed rule causes a concern with the future practical implementation or approach to enforcement, including:

- Section 103.15, *Restructured Energy Market Transition*, requires a day to be specified, upon which operation of the restructured energy market commenced, for the purpose of administering a market rollback. Given that individual subsections of the REM ISO rules and existing ISO rules may be independently brought into effect or retired, respectively, it is not clear that the transition to the restructured energy market can be isolated to a particular day.

- Section 212.2, *Spinning Reserve Technical Requirements and Performance Standards*, Section 212.3, *Supplemental Reserve Technical Requirements and Performance Standards*, Section 215.2, *Delivery Requirements for Energy*, and Section 215.3, *Consumption Requirements for Bids*, all set the standard for compliance to be no deviation outside of the established tolerance for “any amount of time” rather than as an average over some period of time as is set out in the existing ISO rules. This raises enforcement challenges, where a momentary deviation or measurement error could result in an enforcement action, and where a single event could result in multiple discrete instances outside of the tolerance that, in the language of the rule, may be considered separate contraventions.

- Section 212.6, *Offers for Operating Reserve*, does not reference the handling of minimum block duration which was mentioned in subsection 2.2.2 of the REM Final Design.

- Section 212.10, *Restatements for Operating Reserve*, requires a pool participant to respect deliverability constraints when making an asset substitution for operating reserve. In other instances, such as Section 212.7, *Co-Clearing of Operating Reserves*, it is incumbent on the ISO to consider deliverability constraints. The new Section 212.11, *Deliverability Constraints*, outlines that deliverability constraints may encompass several factors, including different geographic areas, ancillary services, and assets. The MSA recommends that the AESO consider whether the pool participant will have access to all the necessary information to ensure that their asset substitutions do not violate

deliverability constraints and whether the pool participant is ultimately best positioned to make that assessment.

- Section 213.2, *Real-Time Market Restatements*, changes the lockdown for offer and bid restatements from 2 hours before delivery to 1 hour. Implementation of this change will require the AESO to make corresponding changes to its publications, including any price forecasts.

- Section 214.1, *Reliability Unit Commitment*, does not specify how much time a pool participant has to decide whether to accept a cost guarantee in response to a unit commitment directive or what the default option would be if the pool participant does not respond within that timeframe.

- Section 214.1, *Reliability Unit Commitment*, and Section 214.4, *Reference Levels*, both require the ISO to review cost submissions for completeness. Given the importance of these cost submissions for determining prices and market participants' compensation, a completeness standard is not sufficiently robust and may result in unreasonable costs being incorporated into the AESO's dispatch and settlement processes.

- The proposed definition for "locational marginal price" refers to subsection 9(1) of Section 214.2, *Dispatch and Pricing Algorithm*, which includes the reference bus price and other components. The proposed definition for "reference bus price" refers to subsection 9(3) of Section 214.2, which includes the weighted average of locational marginal prices. This appears to be a circular definition that does not provide clarity on how prices are being determined.

- Section 214.5, *Local Market Power Mitigation*, applies mitigated costs for the remainder of the current hour ending if a pool asset fails the impact test rather than repeating the test during each settlement interval, creating potentially unnecessary mitigation where an impact test is only failed for a portion of an hour. Further, the structure of subsection 4 requires that a locational marginal price has been determined for at least one settlement interval in the current hour ending before the local market power mitigation assessment is triggered. This, along with the required computation time and the forward-looking nature of subsection 4(6), implies that at least one settlement interval at the beginning of each hour ending will never be subject to local market power mitigation. In Local Constrained Areas with predictable constraints, this leaves the potential for significant exercise of local market power and unnecessary confusion.

- Section 214.6, *Interchange Transactions and E-Tags*, and the updated definition of acceptable operational reasons in the Consolidated Authoritative Document Glossary are in conflict. The proposed rule requires restating the available capacity if the pool participant is "unable to procure all or a portion of the requested transmission service" which would include transmission services not in the adjacent balancing authority while the updated definition is specific to "physical or operational constraints associated with an interconnection or an *adjacent balancing authority*." Furthermore, Section 5(5)(c) of the

proposed rule allows for changes to the interchange schedule for an emergency “in any other balancing authority” which would not be an acceptable operational reason for the pool participant if the emergency was somewhere other than the adjacent balancing authority.

- Section 214.6, *Interchange Transactions and E-Tags*, allows for changes to the interchange schedule for the delivery of external 30-minute ramping reserve while Section 210.5, *30-Minute Ramping Reserve Qualification and Performance Standards*, specifies that import assets cannot be qualified to provide 30-minute ramping reserve.

- Section 215.4, *Price Validation and Correction*, allows the ISO no more than four business days to publish a price on a final basis. However, subsection 5 seemingly allows the ISO to issue another correction to a final price, with no time limitation. Modifying prices significantly after they were published on a final basis creates uncertainty and would be challenging to implement.

The MSA notes that the AESO intends to further consult on issues relating to allowable dispatch variance. While the MSA recognizes the potential benefits of tighter tolerances, ensuring that this change is technically feasible will be necessary to support enforceability.

The MSA appreciated the opportunity to provide these comments. Andrew Wilkins, Executive Director, Market Assessment, would be happy to make himself available to address any questions that the AESO may have regarding the comments above.

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