

Proposed New Section 207.2 of the ISO Rules, *Gross Minimum Procurement Volume*

Date of Request for Comment: November 28, 2018
Period of Comment: November 28, 2018 through December 13, 2018

Stakeholder Comments and/or Proposed Alternative Rule Wording	AESO Replies
<p>Base Auction Gross Minimum Procurement Volumes for 2021/2022 and 2022/2023 Obligation Periods Subsection 2(a)</p>	
<p><u>Solas Energy Consulting ("Solas")</u> The ISO must establish the gross minimum procurement volumes as follows: (a) 18,305 MW of maximum capability for the base auction for the 2021/2022 obligation period based on the assets listed in Appendix 1; and (b) 18,400 MW of maximum capability for the base auction for the 2022/2023 obligation The maximum capability for each base auction for an obligation period will be submitted to the AUC at the commencement of the prequalification period and be based on the methodology described in rule 207.1. The timing for publishing procurement volumes requires striking a balance between providing information to market participants ahead of time for planning purposes and maintaining auction integrity by publishing the values as close as possible to the submission of participant offers. Publishing demand curve values too early results in a loss of economic efficiency because the participants will be using more up to date information than that used by the AESO. By way of example, PJM publishes the capacity market parameters four months before the capacity market clears. For the AESO, an additional six months to allow for AUC review and approval is sufficient. Six months of review plus four months lead time is approximately the time of commencement of the prequalification period. Using this method for the initial 2021/2022 obligation period, the Demand Curve parameters will be submitted to the AUC in early November 2019.</p>	<p>The AESO does not agree with the changes proposed by Solas. Pursuant to AUC Rule 017, the AESO is required to file the procurement volumes for the first two auctions with the Commission as part of its application for the approval of the proposed provisional rules. The demand curve parameters are embedded in ISO rules in accordance with Part 2.2 of the <i>Electric Utilities Act</i>, which dictates that ISO rules are the vehicle for establishing and operating the capacity market.</p> <p>Gross minimum procurement volumes will be based on the methodology in Proposed Section 207.1, <i>Resource Adequacy Model</i>. The AESO expects to file a procurement volume for approval with the Commission before the commencement of the qualification period for each auction so that, at the start of the qualification period, the size of the market is known and can be used to inform supply participation and other business decisions. At its December 4, 2018 process meeting, the Commission indicated that it is planning to revisit AUC Rule 017 to consider further governance surrounding future procurement volumes.</p>

Please provide your comments on the following (as set out in AUC Rule 017 s. 13(b-j)):

Item #		Stakeholder comments	AESO Replies
1	whether you agree that Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> relates to the capacity market and why or why not		
2	whether you agree that Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> should or should not be in effect for a fixed term and why or why not	<p><u>Solas Energy Consulting ("Solas")</u></p> <p>The volumes should be filed with the AUC at the beginning of the prequalification period.</p>	Please see the AESO's reply to Solas' comment on subsection 2(a) above.
3	whether you understand and agree with the objective or purpose of Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> and whether, in your view, Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> meets the objective or purpose	<p><u>Solas Energy Consulting ("Solas")</u></p> <p>The Coalition understands that the objective is to comply with AUC Rule 017 13.2 (k), however the Coalition disagrees with including the volumes in ISO rule 207.2.</p> <p>AUC Rule 017 13.2 (k) states:</p> <p><i>"An application for approval of a proposed provisional rule must include the following information:</i></p> <p><i>(k) the ISO's <u>targeted</u> capacity procurement volumes for the first two capacity market auctions"</i></p> <p>The Rule 017 13.2 (k) does not stipulate that the capacity procurement volumes must be included in a rule, but only that the targeted capacity must be included with the application. Items required in AUC section 13.2 (b) through (j) are analyses, explanations and descriptions, namely supportive materials that are not part of the ISO rules. The target volumes should be included with the application as additional material, not as part of a proposed ISO</p>	Please see the AESO's reply to Solas' comment on subsection 2(a) above. Based on the legislative framework that is in place for approving the demand curve parameters and the schedule for the first and second capacity market auctions, there are limited opportunities to make further refinements to the 2021/22 and 2022/23 procurement volumes following the Commission's provisional approval of the ISO rules.

		<p>rule.</p> <p>Submitting the procurement volumes as part of an ISO rule carries the risk that the AUC may not approve the volumes when the decision is issued sometime after August 1, 2019. In that situation, the AESO will be left with very little time to address stakeholder concerns and correct demand curve calculations before the start of the initial pre-qualification auction.</p> <p>The Coalition does not have confidence in the Gross Minimum Procurement Volumes as proposed in Section 207.2 and requires further consultation on the procurement volumes. The coalition recommends that the AESO file the targeted volumes as additional information in the application. This approach will allow time for the AESO to complete additional analysis as requested by the Coalition and other stakeholders and to initiate a further stakeholder consultation process to increase confidence in the methodology and ultimate volumes. The AESO would then be in a position to include the final volumes in a rule update. The rule update would be filed for AUC consideration at the start of the pre-qualification period. The timing of the rule update filing could also be discussed in the stakeholder consultation process.</p>	
4	how, in your view, Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> affects the performance of the capacity market and the electricity market	<p><u>Solas Energy Consulting ("Solas")</u></p> <p>The Coalition does not have confidence in the Gross Minimum Procurement Volumes as proposed in Section 207.2. There is significant risk that Gross Minimum Procurement Volume is too high which will have a materially detrimental impact on the performance of the electricity market.</p>	The AESO does not agree that Proposed Section 207.2 will lead to over-procurement of capacity. The gross minimum procurement volumes in Section 207.2 represent the capacity required to meet the resource adequacy standard.
5	your views on any analysis conducted or commissioned by the AESO supporting Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i>	<p><u>Solas Energy Consulting ("Solas")</u></p> <p>The analysis conducted by the AESO is insufficient to justify the volumes indicated in the rule.</p> <ol style="list-style-type: none"> 1) Calibration analysis needs to be performed for a minimum of 5 years of data, and preferably up to 10 years of data. 2) The results of the calibration analyses need to examine more of 	<p>The AESO is required to establish and operate the capacity market with reference to the resource adequacy standard as per the <i>Electric Utilities Act</i>. The Government of Alberta has indicated that the resource adequacy standard is a minimum of 0.0011% normalized expected unserved energy. Therefore, the AESO is required to procure capacity to a level such that expected loss of load in an obligation period does not fall below this minimum standard.</p> <p>The following are in response to Solas' questions:</p>

		<p>the distribution of supply cushion hours, not just EUE and EEA hours. EUE and EEA events are the result of the extreme tail of the Supply Cushion distribution, namely 5 out of 8760 hours, and are relatively rare events. More information on the performance of the RAM model can be determined by examining a greater portion of the supply cushion distribution. For example, the AESO could calculate, by month-Weekday/Weekend-peak/off-peak/super-peak the average supply cushion from the 200 model runs and the average supply cushion from historical data. This analysis will illustrate whether the model is estimating reliability on a consistent basis with historical experience.</p> <p>3) The Coalition request the AESO answer the following question: For each of the past 5 or 10 years, how much capacity would have to be removed to achieve the minimum reliability value?</p> <p>The AESO can answer this question by running the RAM model for historical years and successively removing capacity until the reliability target is achieved. The volumes calculated can be compared to the annual reserve margins to validate the model's estimate of reliability.</p> <p>4) The use of load forecast uncertainty should be removed. Changes in the load forecast over time will be addressed in the rebalancing auctions.</p>	<p>1) As noted in the AESO's November 29, 2018 reply to Solas Energy Consulting on behalf of the Renewable Energy Coalition, the AESO reviewed key inputs in the Resource Adequacy Model ("RAM") and performed a calibration against 2018 YTD actuals. The AESO is of the view that performing additional calibrations for years prior to 2017 has limited benefit and will not add value to the assessment of the reasonableness of the gross minimum procurement volumes for the 2021/2022 and 2022/2023 obligation periods for the following reasons:</p> <ul style="list-style-type: none"> • Years 2014 to 2016, inclusive, experienced a high supply cushion with no observed load shed events. The expected calibrations would not be materially different than the results from the 2017 calibration and therefore, would not provide any additional insight. • For years prior to 2014, the base fleet and inputs into the RAM would be materially different than the current model. These material differences would not provide comparable results. It would not be reasonable to apply insights gained from calibrations to the current model. • The 2017 and 2018 calibrations sufficiently validate the current RAM and demonstrate that the gross minimum procurement volumes in Proposed Section 207.2 are reasonable. <p>2) The AESO reviewed the distribution of reliability event outcomes and evaluated the performance of simulated variables in the calibrations against actual observations. As noted in Appendix 1 to the Letter of Notice posted November 28, 2018 – Gross Minimum Procurement Volume Input and Methodology Review, key inputs were evaluated for all 8760 hours, not just the tail of the supply cushion distribution. Accordingly, the AESO is of the view that the 2017 and 2018 calibrations sufficiently validate the current RAM and demonstrate that the gross minimum procurement volumes in Proposed Section 207.2 are reasonable.</p> <p>3) For the reasons described in #1 above, the AESO is of the view performing additional calibrations for years prior to 2017 would be of limited value.</p>
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6	whether you agree with Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i> taken together with all ISO rules and in light of the principle of a fair, efficient and openly competitive market		
7	whether you would suggest any alternatives to Section 207.2 of the ISO Rules, <i>Gross Minimum Procurement Volume</i>	<u>Solas Energy Consulting ("Solas")</u> Alternative wording is suggested above.	Please see the AESO's reply to Solas' comment on subsection 2 (a) above.
8	whether you agree that the proposed provisional rule supports ensuring a reliable supply of electricity at a reasonable cost to customers and why or why not	<u>Solas Energy Consulting ("Solas")</u> The rule as proposed will result in excessive costs to customers due to over-procurement.	Please see the AESO's reply to Solas' comment on item 4 above.
9	whether you agree that the proposed provisional rule supports the public interest and why or why not	<u>Solas Energy Consulting ("Solas")</u> The rule as proposed is not in the public interest due to the likelihood of over-procurement and the economic inefficiency of publishing procurement volumes too far ahead of the actual auction.	Please see the AESO's reply to Solas' comment on item 4 above.