

**Stakeholder Comment Matrix – May 14, 2020**  
**Request for feedback on sub-hourly settlement, session 1 material**



<b>Period of Comment:</b> Apr. 23, 2020 through May 14, 2020 <b>Comments From:</b> Heartland Generation Ltd. <b>Date:</b> [2020/05/14]	<b>Contact:</b> [REDACTED] <b>Phone:</b> [REDACTED] <b>Email:</b> [REDACTED]
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The AESO is seeking comments from stakeholders on its approach to reviewing sub-hourly settlement, and content from session 1.

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. Email your completed matrix to [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca) by May 14, 2020
4. Stakeholder comments will be published to [aeso.ca](http://aeso.ca), in their original state, with personal or commercially sensitive information redacted, following May 14, 2020.

	Questions	Stakeholder Comments
1.	<p>In an effort to narrow the scenarios for implementation cost estimates, the AESO provided analysis that indicated, based on past observations, that a 15 minute interval would be the easiest to implement and that there were limited economic gains to be made from reducing the settlement interval to 5 minutes.</p> <ul style="list-style-type: none"> <li>- Do you have comments related to the analysis presented?</li> <li>- Would you suggest additional analysis be completed to better understand the benefits of a shorter settlement interval?</li> </ul>	<p>Heartland Generation Ltd. (HGL) does not believe there is enough evidence to warrant a change to the settlement interval during this time of uncertainty. Given the expected limited efficiency gain and costly implementation, the AESO should focus on initiatives where the need to change is more pressing.</p> <p>However, if the AESO consultation does continues at this time, then HGL has a couple of suggestions:</p> <ul style="list-style-type: none"> <li>• <b>Consider changes to offer requirements:</b> currently, generators have offers locked down at T-2, where the settlement interval is equal to an offer interval of one hour. If the settlement interval was to decrease from one hour to 15-minutes, the AESO should consider what other rules should change to further improve efficiency. The AESO should consider these further improvements to generator efficiency in tandem with potential changes to the settlement interval.</li> <li>• <b>Removal of 5-minute settlement option:</b> the AESO analysis is indicative that if settlement is shortened that most of the efficiency gained is in the</li> </ul>

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		<p>move from 1-hour to 15-minute intervals. It is also shown that 5-minute settlement will have a much higher cost of implementation than 15-minute. If the consultation is to move forward, the AESO should focus the remaining consultation only on scenarios involving 15-minute settlement and remove those related to 5-minute settlement.</p>
2.	<p>In an effort to narrow the scenarios for implementation cost estimates, the AESO provided assessments that sub-hourly settlement for all generation and load sites with interval meters could be mandatory and cumulative meter sites could be billed using: a) new shaping to account for 15 minute settlement or b) remain on an hourly billing approach with a true up payment.</p> <ul style="list-style-type: none"> <li>- Do you have comments related to the participation approach suggestion made by the AESO?</li> <li>- Do you have comments related to the true-up analysis presented by the AESO?</li> <li>- Would you suggest additional analysis be completed to better understand participation options?</li> </ul>	<p>HGL is supportive of a level-playing field for all market participants, including both generation and loads. It is therefore requisite on the AESO to align settlement rules for all market participants as much as practicably possible. The differentiated treatment of loads should not be perpetuated with settlement intervals, and the AESO's solution should require the same settlement intervals for all loads (as it requires the same treatment for all generators).</p>
3.	<p>At the session the AESO presented information, based on historical observations that suggested a move to sub-hourly settlement would provide limited economic benefits to load and generation in Alberta.</p> <ul style="list-style-type: none"> <li>- Do you have comments related to the analysis?</li> <li>- Do you have comments related to the qualitative benefits that would be provided to the market from a move to sub-hourly settlement?</li> <li>- Do you have suggestions on how the AESO could estimate the future benefits of sub-hourly settlement that could be included in the economic evaluation? For example, approaches to estimate load / generation operation changes?</li> <li>- Do you believe the sub-hourly settlement initiative should continue to be pursued by the AESO and industry?</li> </ul>	<p>Based on the analysis presented, the AESO appears focused on solving an issue for a small subset of consumers and has the potential to greatly increase costs for all market participants. Therefore, HGL does not propose a change to the settlement interval at this time; further, the AESO should complete the settlement audit before continuing a consultation on sub-hourly settlement. With this in mind, HGL has provided feedback on the analysis presented by the AESO:</p> <p><b>Payments to Loads on the Margin</b></p> <p>The AESO should publish analysis of alternatives to sub-hourly settlement, one suggestion could be payment to loads on the margin or something similar. For generation, much of the benefit for shortening the settlement interval is already available through the AESO's payment to suppliers on the margin (PSM) settlement rule. HGL suggests that if a load were to bid into the merit order, the AESO could develop similar treatment as PSM to account for the misalignment between settlement and dispatch. This "payment to loads on the margin" could reflect the benefit to loads of shortened settlement in much the same way that PSM does for generators. It would also allow for differentiated participation among self-selected</p>

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		<p>loads without altering settlement intervals between them.</p> <p><b>Transparency of AESO Analysis</b></p> <p>The AESO should further improve transparency in this process by releasing granular data so that individual market participants can perform their own analyses using the same inputs. The publicly available data on the current supply and demand (CSD) page is instantaneous and is not readily stored or accessible unless scraped by a market participant or data vendor. Due to this requirement, its quality varies and can create a challenge in performing analyses. HGL recommends that the AESO publish the data set and analysis that it has conducted thus far.</p> <p><b>Improving AESO Analysis Assumptions</b></p> <p>The AESO analysis does not consider that generation offer behavior will change in response to shortened settlement intervals. As outlined above in response to question 1, the decreasing of the settlement interval could also impact the length of the lockdown period for generation offers. The fact that offers could include more up to date information than previously allowed is expected to be efficiency enhancing. The AESO should work to provide directional indication of how changes to generation and load behavior will be impacted by shortened settlement, and if further changes to ISO Rules should be considered.</p> <p><b>Cost of Implementation</b></p> <p>In the next steps, the AESO should include the full cost of implementation for shortened settlement options. The cost of implementation will be a key consideration when determining the cost-benefit analysis of any changes.</p>
4.	<p>At the session the AESO presented information that suggested energy market bids / offers could continue to be made on an hourly basis. Do you have comments related to this element of the analysis?</p>	<p>If the consultation continues, the AESO should further explore increasing overall market efficiency by reviewing the ISO Rules related to market bids/offers. If the settlement interval were to change, there may be further efficiency gained by matching the offer/bid interval with the settlement interval. In addition, it may be worthwhile to explore the offer window lockdown period (e.g. T-2). The AESO should proceed to analyze the necessary improvements to the energy market bids/offers that would maintain a level-playing field and leverage settlement interval changes to maximize overall market efficiency.</p>

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5.	<p>At the session the AESO presented information that suggested energy dispatch could continue to be made on an as-needed basis regardless of the settlement interval. Do you have comments related to this element of the analysis?</p>	<p>The “as-needed” dispatch has been a unique feature of the Alberta wholesale electricity market as most other markets have moved to 5-minute dispatch performed using security constrained economic dispatch (SCED). Given that AESO’s operational performance metrics are predominantly based on a 10-minute clock, HGL is not convinced that a 15-minute dispatch is warranted. There could be further alignment if the settlement interval was at 5-minutes, however neither HGL nor the evidence produced is supportive of further shortening to 5-minute settlement.</p>
6.	<p>Cost question – given the narrowing of implementation options noted in questions 1 and 2, if your cost estimates will have changed from what you provided subsequent to session one, would you please provide an update here.</p> <p>LSAs and MDMs please do not answer; the AESO will be contacting you for participation in an additional session.</p>	<p>Not applicable.</p>
7.	<p>At the session, the AESO explored potential impacts to other areas. Are there other potential impacts that should be considered and why?</p>	<p>At this time, HGL has no further potential impacts that were not listed in the AESO’s presentation.</p>
8.	<p>Please provide any other comments you have related to the sub-hourly settlement engagement.</p>	<p>Further to HGL’s comments in response to questions 1 and 3, changes to the settlement interval are not warranted at this time and the consultation should be postponed until greater clarity is gained in the market. The AESO could continue to work on the analysis related to this proceeding, but the public consultation should be placed on hold until after the settlement audit is complete and published. The AESO’s settlement audit may result in changes to the settlement process/system and to avoid double-work or the redundancy of the current sub-hourly settlement consultation, the AESO should at a minimum postpone this consultation until the audit has been concluded.</p>

Thank you for your input. Please email your comments to: [stakeholder.relations@aeso.ca](mailto:stakeholder.relations@aeso.ca).