

## Stakeholder Comment Matrix – Feb 25, 2020

### Request for feedback on sub-hourly settlement, session 1 material



<b>Period of Comment:</b> Feb. 25, 2020 through Mar. 13, 2020 <b>Comments From:</b> Greengate Power Corporation (Greengate) <b>Date:</b> 2020/03/13	<b>Contact:</b> [REDACTED] <b>Phone:</b> [REDACTED] <b>Email:</b> [REDACTED]
---	--

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 Mar. 13, 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 Mar. 13, 2020.

	Questions	Stakeholder Comments
1.	Please describe why you are interested in sub-hourly settlement and how it affects your business.	Greengate is developing the 400 MW Travers solar project and have several other active wind and solar projects. Changes to the settlement of pool price could alter the price received for this production and the uncertainty associated with this change could impact project development and financing. This change could have a material impact on the revenues generated from its renewables portfolio including the 400 MW Travers Solar Project. Significant changes in settlement price or pricing risk could put new renewable developments at risk.
2.	Is your organization a load, supplier, both a load and supplier, a billing agent, or other. If other, please describe.	Greengate is a renewable energy supplier.
3.	The AESO has described the scope for this process, general agenda items and timing for upcoming stakeholder engagements. Please describe if you believe the scope is appropriate. If not, please describe/provide your rationale.	Generally Greengate is in alignment with the scope identified. As part of the benefits and cost assessment, Greengate would also appreciate understanding the impact of any change to settlement method on the price received for all types of suppliers. Also the implementation challenges should be fully understood, not only for the AESO but for other market participants. For example, moving to sub-hourly

	Questions	Stakeholder Comments
		settlement may require significant changes or renegotiation of existing market deals.
4.	At the session, the AESO outlined the objectives of the sub-hourly settlement, which was to improve price fidelity and incent flexibility. Do you have any comments on the objectives of the sub-hourly settlement engagement?	Greengate is generally in alignment with the objectives identified.
5.	<p>Are there considerations other than the following that should be taken into account to determine the value in moving to sub-hourly settlement interval?</p> <ul style="list-style-type: none"> <li>• The expected enhancement in price fidelity and flexibility</li> <li>• The expected financial impact on loads and generators</li> <li>• Implementation costs for the AESO and market participants</li> <li>• Timing required to transition to a sub-hourly settlement interval</li> </ul>	The AESO should also gain an understanding of the other items that may be impacted in moving to a shorter settlement interval, such as impact on current pricing and potential impacts on pricing longer term deals while a change is implemented.
6.	Please describe the size of your business in the approximate total MWhs consumed or produced in 2019.	Greengate is still in development for Travers, which will produce about 1 Million MWh's when fully on-line in late 2021. However, this change could have a material impact on the revenues generated from its renewables portfolio including the 400 MW Travers Solar Project. Significant changes or risks could put new project development at risk.
7.	<p>Do you currently have interval metering installed in your operations?</p> <p>If yes, please describe the approximate volume of your business that was measured using interval meters in 2019.</p>	Yes, interval metering will be installed.
8.	<p>Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at <b>five-minute intervals</b>?</p> <ul style="list-style-type: none"> <li>• Metering</li> <li>• IT systems</li> <li>• Data storage</li> </ul>	Greengate will need to consider data storage and IT systems for shorter settlement intervals as well as overall pricing on its development. Being a purely renewable developer (wind & solar), this change could have a material impact on the revenues generated from its renewables portfolio

	Questions	Stakeholder Comments
	<ul style="list-style-type: none"> <li>Other</li> </ul>	
9.	For each of the elements listed in question 8 above, please describe the changes that would be required for your business.	Metering – no change, IT systems and data storage – increase in data and complexity.
10.	The AESO is looking to understand the magnitude of costs during this initial phase. For each of the elements listed in question 8 above, please provide estimates of the cost required to implement these changes. If you are unable to provide cost estimates, please indicate when you can do so.	Greengate is not able to provide an estimate at this time.
11.	For each of the elements listed in question 8 above, please describe the timing required to implement these changes.	NA
12.	<p>Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at <b>15-minute intervals</b>?</p> <ul style="list-style-type: none"> <li>Metering</li> <li>IT systems</li> <li>Data storage</li> <li>Other</li> </ul>	Same as above, but likely less severe.
13.	For each of the elements listed in question 12 above, please describe changes that would be required for your business.	NA
14.	The AESO is looking to understand the magnitude of costs during this initial phase. For each of the elements listed in question 12 above, please provide estimates of the cost required to implement these changes. If you are unable to provide cost estimates by the end of the comment period (March 13, 2020), please indicate when you can do so.	NA

	Questions	Stakeholder Comments
15.	For each of the elements listed in question 12 above, please describe the timing required to implement these changes.	NA
16.	The AESO has described some challenges that may impact market participants. Are there other challenges that have not been identified that are unique to the market participant or in general?	Any potential market change creates uncertainty and this uncertainty can impact project development and financing. Greengate strongly advocates for a stable and consistent pricing framework. This market change could have a material impact on the revenues generated from its renewables portfolio.
17.	Should sub-hourly settlement apply to all market participants? Is it fair for sub-hourly settlement to only apply to a subset of market participants?	Although Greengate is concerned with any market changes causing uncertainty, Greengate has considered and discussed potentially allowing sub-sets of customers to choose sub-hourly settlement. For instance, some large newsprint load and generation facilities may greatly benefit in moving to sub-hourly settlement, however perhaps some suppliers may want to remain on an hourly average. Greengate would appreciate the AESO investigating the pros and cons of allowing this flexibility in its approach. In order to create a positive environment for new supply, an option could be to leave the energy market as-is, but develop sub-hourly ancillary service product designed to specifically attract loads and peaking generation that could benefit from sub-hourly pricing and this in turn could provide additional system flexibility/fidelity.
18.	Does payment to suppliers on the margin (PSM) sufficiently incent generator response without sub-hourly settlement? If we move to sub-hourly settlement, is PSM still required to address the mismatch between settlement and dispatch interval?	It appears that using PSM in a sub-hourly settlement approach is likely not needed.
19.	Are there any other benefits that have not been identified? Please elaborate.	A Sub-hourly settlement approach to a sub-set of customers, or sub-hourly ancillary service product may provide further incentives to invest in storage, which may bring other benefits to the grid.
20.	Is the approach used for this engagement effective? If no, please provide specific feedback on how the AESO can make these sessions more constructive.	Receiving material well before the session is appreciated. All detailed analysis should be reviewed in detail at the session to enable stakeholders to carefully assess the results and provide input.

	Questions	Stakeholder Comments
21.	<p>The AESO seeks to be transparent through this stakeholder engagement process and would like to publish all information as received.</p> <p>Is the information provided in this feedback suitable to be published by the AESO on <a href="http://aeso.ca">aeso.ca</a>? If no, please indicate the sections of your response that should be redacted?</p>	<p>Greengate's feedback may be posted without redacting any sections.</p>
22.	<p>Please provide any other comments you have related to the sub-hourly settlement engagement.</p>	<p>The definition of sub-hourly settlement and which customers it may apply to needs to be clarified to gather appropriate costs. DFO's would have significant cost in moving this settlement period to small retail customers. The costs from participants can only be accurate if the scope is clear. Greengate is interested in the AESO's view on overall customer benefits and quantification of these benefits to justify the metering, IT costs and market deal and new development impacts of moving to sub-hourly settlement.</p>

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