<u>Stakeholder Comment Matrix – Feb 25, 2020</u> Request for feedback on sub-hourly settlement, session 1 material



Period of Comment: Feb. 25, 2020 through Mar. 13, 2020

Comments From: Perimeter Solar Inc.

Date: 2020/03/04

Contact:
Phone:
Email:

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 by Mar. 13, 2020
- 4. Stakeholder comments will be published to 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.	We are the developer of the 130 MW Claresholm Solar Project, one of the largest solar farms in Alberta / Western Canada. It is being constructed in 2020. We have subsequently sold the project, but continue to be active as a solar project developer in Alberta. We are therefore not only interested in how sub-hourly settlement impacts the new project owners but also the economics of our future projects, because its implementation would represent an unfair and unwarranted transfer of energy sales revenue from these projects to load and peaking generation. Investment decisions were made based on the performance of solar under an hourly settlement model.
2.	Is your organization a load, supplier, both a load and supplier, a billing agent, or other. If other, please describe.	Developer / Generator
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.	Scope fails to address one key item – will a change to sub-hourly settlement stymie investment into the province. Debt & equity are investing into the province because of certainty of existing policies and rules. Changes that create wealth transfers will

	Questions	Stakeholder Comments
		frustrate them and need to be discussed.
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	Part of the objective should include a comparison of costs/benefits to other methods, such as leaving the hourly settlement model alone but developing a stand-alone ramping product.
	sub-hourly settlement engagement?	A core failing of the AESO's capacity market work, as identified by the AUC, was that the AESO at no point in time provided a cost/benefit analysis of maintaining the energy-only market design.
		Therefore we strongly suggest that a cost/benefit analysis is prepared for review by stakeholders prior to making a decision on the proposed changes.
5.	Are there considerations other than the following that should be taken into account to determine the value in moving to sub-hourly settlement interval? The expected enhancement in price fidelity and flexibility The expected financial impact on loads and generators Implementation costs for the AESO and market participants Timing required to transition to a sub-hourly settlement interval	The impact on debt/equity investing capital into the province's electricity system. Any changes that negatively impact renewable generators will be seen negatively by the investment community, not to mention running counter to the Government of Alberta's stated objective of having a system that encourages market based renewable growth.
6.	Please describe the size of your business in the approximate total MWhs consumed or produced in 2019.	0 MWh produced in 2019, but 250,000 MWh expected by 2021.
7.	Do you currently have interval metering installed in your operations? If yes, please describe the approximate volume of your business that was measured using interval meters in 2019.	Not yet (project to be constructed in 2020)
8.	Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at five-minute intervals? • Metering	Earned revenue projected to be negatively affected Data Analysis (more complex, more expensive) Higher AESO cost i.e., trading charge

	Questions	Stakeholder Comments
	IT systemsData storageOther	
9.	For each of the elements listed in question 8 above, please describe the changes that would be required for your business.	Unknown costs of data analysis but we would no longer be able to do simple spreadsheet math (e.g., pool price * metered volume) because the number of data points would grow from 8,760/yr to upwards of 525,600.
		With respect to lost energy sales revenue we would have no measure to protect against it.
		With respect to higher AESO costs i.e., trading charge we would have no opportunity to protect against it.
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.	We anticipate losing upwards of ~2% of energy sales revenue with the move to subhourly settlement, dependent on the amount of solar that commissions over the next decade.
11.	For each of the elements listed in question 8 above, please describe the timing required to implement these changes.	
12.	Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at 15-minute intervals? • Metering • IT systems • Data storage • Other	Same as above
13.	For each of the elements listed in question 12 above, please describe changes that would be required for your business.	Same as above

	Questions	Stakeholder Comments
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.	Same as above
15.	For each of the elements listed in question 12 above, please describe the timing required to implement these changes.	Same as above
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?	Changes to market design elements or aspects that impact revenue, such as settlement periods, frustrate debt/equity investment because it creates uncertainty. Capital wants a stable environment with known rules that have remained in place for some time.
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?	Sub-hourly should not apply to renewable generation because it represents a wealth transfer from renewable to load and peaking generation. Create a separate ancillary service product that is priced sub-hourly instead.
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?	New technologies such as behind the fence energy storage products that are increasingly co-located with renewable energy facilities can fill the gap without going to sub-hourly settlement. These energy storage products have very fast ramp rates so should help alleviate the issues AESO is trying to cover with sub-hourly settlement
19.	Are there any other benefits that have not been identified? Please elaborate.	
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.	
21.	The AESO seeks to be transparent through this stakeholder engagement process and would like to publish all information as received.	Yes
	Is the information provided in this feedback suitable to be	



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	published by the AESO on aeso.ca? If no, please indicate the sections of your response that should be redacted?	
22.	Please provide any other comments you have related to the sub-hourly settlement engagement.	Given the as-is energy-only market design is attracting significant capital into the province, especially on the renewable front, and there are no signs of the market having any issues, the AESO should be focused on instilling investor confidence and encouraging capital for renewable projects to maintain comfort in Alberta.

Thank you for your input. Please email your comments to: stakeholder.relations@aeso.ca.