<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: The Cogeneration Working Group is comprised of the following

members: Canadian Natural Resources Limited; Cenovus Energy Inc.; Dow Chemical Canada ULC; Imperial Oil Resources Limited; MEG Energy Corp.; Suncor Energy Inc.; Syncrude Canada Ltd.; TC Energy Ltd. This submission represents the consensus view of the group and is submitted on behalf of the group by Power Advisory LLC. Individual member companies may also make independent

submissions.

Date: 2020/03/13

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.	CWG members are both generators and consumers and all net flows with the grid will be impacted by the settlement interval.
2.	Is your organization a load, supplier, both a load and supplier, a billing agent, or other. If other, please describe.	All members of the CWG have, or are a partner in, or are in the process of developing, industrial co-generation assets. Accordingly, the group is comprised of self-suppliers, owning both load and generation.

	Questions	Stakeholder Comments
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.	The CWG supports the current scope, but cautions the AESO to avoid scope creep. Fundamental changes to the market design are not needed at this time and the purpose should be contained to shorter settlement intervals and potentially revisit payments to suppliers (PSM) on the margin to assess whether changes to the PSM could capture the benefits being sought by the AESO in this consultation.
		A 15 minute settlement interval appears to capture the 'low hanging fruit' and there is not much benefit to moving shorter for load responsiveness and intertie settlement.
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?	The objectives as indicated are reasonable.
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 AESO noted that there could be potential changes to the ancillary services market associated with sub-hourly settlement but did not articulate these issues.
		Any interaction between the settlement interval and DTS charges should also be carefully considered. DTS currently has elements that are settled based on a range of time intervals that could be impacted by shorter settlement periods for energy.
		Implementation costs, for the AESO as well as all impacted market participants are key. The CWG sees benefits associated with sub-hourly settlement, and if implementation costs are minimal it is a desirable market improvement.
6.	Please describe the size of your business in the approximate total MWhs consumed or produced in 2019.	CWG members own, operate or are partners in, roughly 4,000 MW of installed generation that produces in excess of 25,000 GWh annually.
7.	Do you currently have interval metering installed in your operations?	All CWG members have interval metering on larger sites. Smaller sites connected at the distribution level have cumulative metering or non-metered sites.
	If yes, please describe the approximate volume of your business that was measured using interval meters in 2019.	The large majority of CWG business in terms of total consumption and production is interval metered.

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8.	Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at five-minute intervals? • Metering	It is important to note that 60 minutes, 15 minutes and 5 minutes are arbitrary settlement periods. As such, existing practices, metering infrastructure and IT systems and the cost of changing from one interval to another is a key factor in evaluating the various intervals.
	IT systemsData storageOther	The CWG notes that 15 minute data is already available from 3 rd party metering services whereas 5 minute data may trigger incremental costs with minimal incremental benefit.
		The key issue for CWG members is the administration of settlement with joint venture partners and internal shadow settlement. Shorter settlement intervals have the potential to trigger material costs for some members associated with upgrading IT and data storage. Individual members may provide specific details as this is expected to vary on a company by company basis.
		Data storage will be impacted by five minute settlement but the CWG has not assessed the magnitude of this cost.
9.	For each of the elements listed in question 8 above, please describe the changes that would be required for your business.	
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.	
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	In the CWG's view, the majority of the value of shorter intervals can be captured with 15-minute settlement. 15-minute intervals address most of the inefficiency associated with the current payment to suppliers on the margin approach and will dramatically reduce uplift costs. Unless price responsive load is materially deterred
	IT systems Data storage	by 15-minute intervals rather than 5, there appears to be minimal incremental bene of moving below 15 minutes.

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	• Other	15-minute intervals is a lower hurdle than 5-minute intervals as the IT and system infrastructure is already largely in place for this interval, as noted. The magnitude of the costs for wire service providers, distribution providers, metering service companies, retailers and billing agents for moving to both 5-minute and 15-minutes must be understood.
		Payments to suppliers on the margin should be re-evaluated to determine if the existing design is a barrier given that it effectively acts as a 'pay as bid' approach rather than a clearing price, if it can be adapted to responsive load that submits a bid, and how much PSM costs and resulting uplift will be reduced by shorter intervals.
13.	For each of the elements listed in question 12 above, please describe changes that would be required for your business.	
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.	
15.	For each of the elements listed in question 12 above, please describe the timing required to implement these changes.	
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?	
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 settlement should apply to all market participants that exceed the current threshold that requires interval metering. Participants should not be able to opt for one settlement type or another. If there is a cost-benefit case for interval meters at smaller sites they should also be subject to the shorter settlement interval once the meters are in place.
		Retailers should continue to be allowed to offer whatever types of products they

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		choose. Shorter settlement intervals should not have an impact on customer choices beyond providing a more discretely measured spot market settlement points.
		The CWG supports a voluntary option for participants to get on shorter settlement on smaller sites that are currently cumulative metered. As noted, once interval meters are in place associated customers should be settled at the wholesale interval.
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?	PSM, if corrected for the current issue that uplift is calculated relative to the offer price rather than the market price, provides the same incentive for generators as sub-hourly settlement. Shorter settlement periods primarily serve to make the actual price more transparent by reducing the magnitude of uplift. Shorter settlement also better aligns production to payment for all generation, including generation not impacted by PSM.
		PSM is still required to address the settlement/dispatch issues even though the magnitude of uplift will be reduced. It is difficult to understand why the AESO would improve the signal for flexibility on the one hand but reduce it on the other (by eliminating PSM).
19.	Are there any other benefits that have not been identified? Please elaborate.	15-minute settlement intervals appears to have benefits for intertie transactions relative to the current intervals.
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.	
	Is the information provided in this feedback suitable to be 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.	A cost benefit analysis must be done to support any proposal for change on this topic. It is clear that there are benefits to shorter settlement intervals, such as improved price fidelity. Fast ramping generators and price responsive demand resources will face a greater incentive to respond to market conditions. However, there also may be substantial costs associated with these changes and these two



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	items must be weighed.
	The CWG notes that the AESO seems to be moving towards this path based on the detailed questions in this document. The CWG also encourages the AESO to look at its own IT related costs (for both 5- and 15-minute settlement intervals).
	Further, it appears that more work needs to be done in order to better quantify the magnitude of the potential benefits. Stylized analysis such as that presented is unlikely to be representative of expected benefits in the actual spot market.

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