

Stakeholder Comment Matrix – Feb 25, 2020

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



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

Comments From: Capital Power

Date: 2020/03/13

Contact: [REDACTED]

Phone: [REDACTED]

Email: [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 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.	The outcome of this engagement may impact revenue Capital Power's generating assets receive and costs of running our business including operating settlement systems and associated processes. Further, as a developer of generation in Alberta, it is important for Capital Power to understand market developments that have the potential to impact the value of future investments.
2.	Is your organization a load, supplier, both a load and supplier, a billing agent, or other. If other, please describe.	Capital Power is a supplier who, among other things, is involved in marketing and sales to various classes of end user.
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.	Capital Power agrees with the AESO's defined scope summarized on slide 14 of the February 25 th , 2020 Sub-Hourly Settlement presentation (the "Presentation").

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4.	<p>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?</p>	<p>Capital Power generally agrees with the AESO's outlined Objectives summarized on slides 19 to 25 of the Presentation.</p> <p>Capital Power echoes the comment made by numerous participants that more detail is required with respect to costs and benefits. Capital Power looks forward to the AESO's quantification of benefits to the market and how those compare to the costs that would be incurred by the AESO and market participants if sub-hourly settlement were implemented.</p>
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"> • 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 	<p>Capital Power agrees with these considerations and notes that sub-hourly settlement can take many different forms (eg. 1m, 5m, 15m settlement, etc.) each with unique costs and benefits to be established and analyzed.</p>
6.	<p>Please describe the size of your business in the approximate total MWhs consumed or produced in 2019.</p>	<p>Capital Power produced approximately 11.5 TWh in the Alberta Power market in 2019.</p>
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>	<p>Capital Power has yet to confirm but believes we have interval metering installed in all of our operations. The approximate volume that was measured using interval meters in 2019 was 11.5 TWh.</p>
8.	<p>Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at five-minute intervals?</p> <ul style="list-style-type: none"> • Metering • IT systems • Data storage • Other 	<p>At five-minute intervals the following elements of Capital Power's business would be affected:</p> <ul style="list-style-type: none"> • Metering • IT systems • Data storage

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9.	For each of the elements listed in question 8 above, please describe the changes that would be required for your business.	<p>Metering: Replacement of metering devices to accommodate for Interval metering.</p> <p>IT systems: Updates to IT systems to handle sub-hourly versus the currently configured hourly settlement.</p> <p>Data storage: Capital Power would require extensive expansion of its data storage capabilities to handle the increased amount of data being provided for settlement and financial reporting.</p>
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.	<p>Capital Power is in the process of estimating metering upgrade costs.</p> <p>Capital Power's initial, rough estimate for IT system and data storage updates is \$4M.</p> <p>Capital Power requires six months to conduct a complete review of infrastructure to accurately estimate the financial impacts of changing to sub-hourly settlement.</p>
11.	For each of the elements listed in question 8 above, please describe the timing required to implement these changes.	<p>Metering: Capital Power is in the process of estimating this.</p> <p>IT systems and Data storage: Capital Power would require a full year to implement sub-hourly settlement at any granularity. That time estimate however, does not include time that our software vendors may also require. An AESO sandbox environment would be a critical component in implementing a change to settlement.</p>
12.	<p>Can you identify which of the following elements will be affected by the implementation of sub-hourly settlements at 15-minute intervals?</p> <ul style="list-style-type: none"> • Metering • IT systems • Data storage • Other 	Capital Power's initial estimates for five-minute settlement are the same for 15-minute settlement.
13.	For each of the elements listed in question 12 above, please describe changes that would be required for your business.	Capital Power's initial estimates for five-minute settlement are the same for 15-minute settlement.

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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.	Capital Power's initial estimates for five-minute settlement are the same for 15-minute settlement.
15.	For each of the elements listed in question 12 above, please describe the timing required to implement these changes.	Capital Power's initial estimates for five-minute settlement are the same for 15-minute settlement.
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?	Capital Power sees no additional challenges at this 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?	<p>Yes, ideally sub-hourly settlement would be applied to all market participants if implemented.</p> <p>That said, Capital Power is open to hearing about classes of supply and demand that sub-hourly settlement should not apply. This may include those whose cost / time to implement is prohibitively high / long and / or sensitivity to price and / or ability to react to price is exceptionally low or non-existent.</p>
18.	<p>Does payment to suppliers on the margin (PSM) sufficiently incent generator response without sub-hourly settlement?</p> <p>If we move to sub-hourly settlement, is PSM still required to address the mismatch between settlement and dispatch interval?</p>	<p>PSM does an adequate but imperfect job of incenting generator response without sub-hourly settlement as described in slide 63 of the Presentation. The AESO's cost benefit analysis should consider benefits above a baseline of hourly settlement with PSM and costs and benefits of removing of PSM, if in fact it can be removed.</p> <p>Under sub-hourly settlement, PSM would no longer be required if the AESO could ensure suppliers would not be subject to settlement prices below offer prices.</p>
19.	Are there any other benefits that have not been identified? Please elaborate.	Capital Power sees no additional benefits at this time.
20.	<p>Is the approach used for this engagement effective?</p> <p>If no, please provide specific feedback on how the AESO can make these sessions more constructive.</p>	The AESO's approach is effective but could have been improved by the AESO conducting at least a high-level cost benefit analysis earlier to establish whether

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		such an initiative should be pursued at all.
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 aeso.ca? If no, please indicate the sections of your response that should be redacted?</p>	Yes.
22.	Please provide any other comments you have related to the sub-hourly settlement engagement.	Capital Power has no additional comments.

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