

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3



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| Period of Comment: Nov. 5, 2020 through Nov. 20, 2020 | Contact: Justin Rangooni, Executive Director |
| Comments From: Energy Storage Canada | Phone: 647-627-1815 |
| Date: 2020/11/20 | Email: jrangooni@energystoragecanada.org |

Instructions

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. **Please submit one completed evaluation per organization.**
4. Email your completed evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

| Questions | Stakeholder Comments |
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| 1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful? | Energy Storage Canada (ESC) found the session valuable. With the amount of content and discussion, a potential improvement could be to host the session in two half-day increments instead of a single full day session. |
| 2. Please complete Table 1: How Did Each Proposal Achieve the Rate Design Objectives for each of the proposals presented at Session 3. | <i>Instructions:</i> As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate. |
| 3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why? | ESC is focused on tariff treatment of energy storage resources. Excluding the ESC proposal, ESC prefers the RMP proposal (Proposal 6). The RMP proposal aligns with ESC's recommendation that storage be treated as a supply resource; |

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| | <p>specifically, a peaker in RMP’s recommendation. DTS charges are only applied to station service load and ESC believes this is prudent. ESC agrees that storage paying GOUC can provide a price signal for locating energy storage resources.</p> |
| <p>4. Does your preferred proposal meet all the rate design objectives?</p> <p>If not, what trade-offs does your preferred proposal create between the rate design objectives?</p> <p>Why are those trade-offs appropriate?</p> | <p>Yes</p> |
| <p>5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?</p> | <p>Excluding ESC’s proposal, the RMP proposal best serves storage participants since it establishes a clear, unique, and consistent tariff treatment for storage.</p> |
| <p>6. a) Which stakeholders are most impacted by your preferred proposal? Why?</p> <p>b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?</p> | <p>Market participants with peaking generation assets are most impacted by the preferred proposal because the RMP proposal would remove barriers to competition.</p> <p>No mitigation is recommended since fair and equal competition for energy injection during peak demand hours is the result of the proposal. This meets the Fair, Efficient and Open Competition Regulation (FEOC) objectives.</p> |
| <p>7. a) How would energy storage resources be treated in your preferred proposal?</p> <p>b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?</p> | <p>Energy storage resources would be treated like a peaking generation resource with modifications for the control/signal for consumption by the storage facility to mitigate constraints on the transmission system.</p> |
| <p>8. What are the challenges or unresolved questions with your preferred proposal?</p> | <p>Determining station load for DTS payments can be complicated for different storage technologies. Clear process is needed to implement the preferred tariff design.</p> <p>Allowing AESO control over consumption of an energy storage resource will raise issues for storage participants. No other consumption in the AIES is scheduled and dispatched by the AESO; therefore, storage would be at a unique disadvantage. Further, there is concern that managing storage consumption would be used as a tool to manage other system issues not related to</p> |

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| | <p>transmission system constraints (e.g., supply/demand balance, tight supply situations, etc.).</p> |
| <p>9. Additional comments</p> | <p>ESC was asked during their proposal presentation if they believed bulk transmission could be built because of energy storage. ESC firmly believes that no bulk or regional transmission should be developed for storage resources. Building new transmission requires the AESO planners to review and identify a system need to justify the transmission system expansion. System needs are determined based on assumptions of the future state of the transmission system and operating parameter assumptions for all load, generation, and storage facilities.</p> <p>For storage to be the cause of new transmission, AESO system planners must assume either:</p> <ul style="list-style-type: none"> A) the storage facility would consume when the transmission system is constrained for enough hours to require the need for expanded capacity; OR B) the storage facility would inject energy when the transmission system is constrained for enough hours to require the need for expanded capacity. <p>Under situation A), the natural operation of energy storage is to consume when the transmission system is unconstrained (e.g., off-peak hours). In the very rare instance that the transmission system is constrained; the most logical cause is abnormal system conditions that should not be the basis for new transmission system expansions.</p> <p>Under situation B), energy storage would be competing against other high merit order generation for the right to inject. Storage should be treated the same as any other generation resources and be supported by the transmission regulation to 'connect and compete'.</p> |

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

| Objective | Description | Example | Proposal 1 ADC, DUC and IPCAA | Proposal 2 Energy Storage Canada | Proposal 3 CWSAA, UCA, AML, and Conoco | Proposal 4 CCA | Proposal 5 CanREA | Proposal 6 RMP Energy Storage | Proposal 7 Suncor Energy Inc. |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------|-------------------------------------|-------------------------------------------|-------------------------------------------------|-------------------|-----------------------------------------------------------|-------------------------------------|-------------------------------------|
| Reflect Cost Responsibility | Cost recovery is based on the benefit and value transmission customers receive from the existing grid | | | | | | [NTD: CanREA proposal did not include alternative design] | | |
| Efficient Price Signals | Price signal to alter behavior to avoid future transmission build | | | | | | | | |
| Minimal Disruption | Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted | | | | | | | | |
| Simplicity | Simplicity and clear price signals while achieving design objectives | | | | | | | | |
| Innovation and Flexibility | ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers | | | | | | | | |

*** Proposed rate design must fit within current legislation ***

| Legend | Achieves objective | Potentially achieves objective with modification | Partially achieves objective | Potentially partially achieves objective with modification | Does not achieve objective |
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