Stakeholder Comment Matrix – March 25, 2021

Bulk and Regional Tariff Design Stakeholder Engagement Session 5

Period of Comment:	March 25, 2021 through April 15, 2021	**Contact:**	Justin Rangooni
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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 comment matrix to tariffdesign@aeso.ca by **April 15, 2021**.

The AESO is seeking comments from Stakeholders on Session 5. Please be as specific as possible with your responses. Thank you.

	Questions	Stakeholder Comments
1.	Please comment on Session 5 hosted on March 25, 2021. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session was valuable for ESC. For energy storage resource tariff treatment, it would have been helpful to include numerical examples for storage treatment. Further, with proposed changes to the DTS rate it would have been helpful to understand how the DOS rate may change as well.
2.	Please comment on Technical Information Session II hosted on March 31, 2021 (if you attended). Was the session valuable? Was there something the AESO could have done to make the session more helpful?	ESC did not attend
3.	Are you supportive of the AESO's preferred rate design? Why or why not?	ESC is encouraged about the discussion of modernizing the DOS rate; however, there are a number of issues that must be addressed before ESC can be supportive. In particular the increase in metered energy rate by over 300% from ~$5/MWh today for 7-minute DOS to $15/MWh in the future is not supported by ESC.

	Questions	Stakeholder Comments
4.	Do you believe the AESO's preferred rate design meets the AESO's rate design objectives? Why or why not? a) Reflect Cost Responsibility (Cost recovery is based on cost causation, reflecting how transmission customers use the existing grid*) b) Efficient Price Signals (Price signal to alter behavior to avoid future transmission build) c) Minimal Disruption (Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted) d) Simplicity (Simplicity and clear price signals while achieving design objectives) e) Innovation and Flexibility (ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers) *AUC Decision 22942-D02-2019 **Proposed rate design must fit within current legislation	No comment at this time
5.	Are there considerations that the AESO should include, exclude and/or modify in its preferred rate design to better achieve the AESO's rate design objectives? Please specify and include your rationale.	No comment at this time
6.	Please describe any areas in which you are aligned with the AESO's preferred rate design.	No comment at this time
7.	Are the assumptions the AESO used for the rate impact reasonable? Is there additional information that would help improve your understanding of rate impacts?	No comment at this time

8.	Are you supportive of the AESO's consideration of modernizing DOS, including its suitability for an energy storage charging capacity? Why or why not? And if so, provide your comments on the consideration of the AESO's DOS eligibility requirements, including for energy storage.	ESC is encouraged to see AESO considering an opportunity service for energy storage. ESC firmly believes that the natural operation of energy storage to consume during low demand periods in addition to the benefits of higher utilization of transmission system assets logically concludes with an opportunity service. A modernized DOS rate, or a new firm opportunity service, is required for energy storage resources. By its nature energy storage consumption is opportunistic, the goal is to consume when electricity is cheap and plentiful and return the energy to the market when it is expensive and scarce. If the transmission system is constrained energy storage can stop consuming until the constraint is cleared. The transmission system does not need to be expanded for energy storage beyond connection assets that would be fully funded by the storage facility at project energization. ESC has a number of concerns that must be addressed before the association and its members can be supportive. • The term for DOS rate is limited to 1 year. Energy storage resources operating life is typically 20+ years. The uncertainty of tariff treatment and transmission system access potentially changing on an annual basis significantly increases the risk for energy storage resources. Modernizing the DOS rate must include a longer term. ESC has a preference for indefinite treatment over the life of the asset. • Most energy storage technologies can respond faster than the current 7-minute service. The AESO should offer a DOS rate with a shorter interruption time to reflect the capabilities of energy storage resources. The AESO could also consider combining the shorter interruption with control to force interruption as part of accepting the rate. • The preferred rate design increases the rate for Metered Energy by over 300%. The AESO is suggesting that the DOS rate would increase by the same amount. Based on how energy storage resources will use the system during unconstrained hours ESC is not supportive of such a steep increase. A fair opportunity service would have a consistent rate treatment that represents the minimum costs of the transmission system. Further, the treatment does not reflect cost causality principles. Energy storage will not drive transmission system expansion. • A core benefit of energy storage resources is the flexibility of operation. Energy storage resources do not require firm capacity service on the transmission system and should be offered a less firm system that

		leverages that flexibility for the benefit of the broader Alberta transmission system. Modernizing the DOS rate should be used to encourage utilization of existing transmission system assets during low usage hours while at the same time using the interruptibility of energy storage (and other loads) to stop consumption when the transmission system capacity becomes constrained. • Currently, DOS service is offered in addition to an existing DTS service. AESO stated during Session 5 that it expects energy storage to have a DTS rate for station service and other consistent demand requirements. ESC is supportive of this approach but requires the details on how the AESO would determine eligibility for DOS versus DTS for an energy storage resource. • Eligibility for the DOS rate is based on transmission capacity availability. AESO stated during Session 5 that the assessment of transmission capacity availability is technology agnostic. ESC would like to confirm that the DOS rate eligibility would assume as an input consumption during off-peak hours for energy storage resources. Further, as an opportunity service there is risk transferred to energy storage resources through potential interruption if the transmission capacity becomes constrained when they want to consume. Eligibility criteria related to available transmission capacity should be low given the risk assumed by energy storage resources. • Finally, it is not clear how the AESO will treat energy storage used for system balancing services (e.g., regulating reserve). In the previous bulk & regional tariff sessions the AESO has discussed offering an exemption for energy storage providing ancillary services to the Alberta electricity market. Further, energy storage used as an alternative to transmission has not been discussed. ESC is interested to understand if a different rate or potential exemption for tariff charges may be considered for energy storage resources offering ancillary services or as an alternative to transmission. Clarification of treatment for both service types is needed.

9.	Please describe what components of the current DOS implementation (i.e., rate, terms, and conditions) limit the use of excess transmission capacity (i.e., capacity that would not otherwise be used under Rate DTS). How might those components of DOS be improved?	Please see comments above
10	Do you have any comments on the AESO's targeted engagement approach for mitigation discussions?	No comment at this time
11	Are there further considerations that the AESO should include, exclude and/or modify in the mitigation option starting principles? Please specify and include your rationale. 1. Limit the rate impact for customers: Mitigate rate impact to under 10 per cent increase to a party's transmission bill for initial stage of transition 2. Adapt with design and rates: Ensure options are adaptable to changes to the proposed design and forecast rates 3. Consistent application: Mitigation options can be applied consistently across all impacted loads and not be individually defined 4. Administrative simplicity: Feasible to implement with current tools and systems 5. Mutually acceptable: Account for feedback from broad stakeholder group	No comment at this time
12	Based on the AESO's mitigation options assessment, are there further considerations that the AESO needs to include, exclude and/or modify (e.g., temporary versus permanent)? Please specify and include your rationale.	No comment at this time

13	Are you in favour of some type of mitigation? Why or why not? If you are in favour of some type of mitigation, how would you assess whether a proposed mitigation approach is acceptable?	No comment at this time
14	In your view, should the AESO provide participants with more flexibility to adjust contract capacity, specifically by way of a contract reset period with the implementation of new rates and/or a PILON waiver if the contract level has not changed in the previous five years?	No comment at this time
15	Do you have any additional implementation considerations the AESO should consider?	As mentioned, AESO should consider a shorter interruption period for a modernized DOS rate to benefit for energy storage attributes.
16	Do you have additional clarifying questions that need to be answered to support your understanding?	Energy storage treatment in the tariff presented by AESO suggests modernizing the DOS rate. At this time, there are many details about the modernized DOS rate that has not been provided. ESC is interested to know if the AESO will provide a timeline for when modernization details will be issued for stakeholder review.
17	Additional comments	ESC is encouraged by the direction of the AESO is taking but believes there is significant work to still do before a finalized rate design can be established.

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