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Spencer Hall
Alberta Electric System Operator
2500, 330 - 5th Ave SW
Calgary, AB T2P 0L4

Dear Mr. Hall

SUBJECT: Bulk and Regional Tariff Design Stakeholder Session

I write on behalf of the cities of Lethbridge and Red Deer, who wish to share their feedback on the presentation and materials from the AESO's March 25th and 31st sessions. Following that session, the AESO requested parties to respond to seventeen questions. The cities' response is provided below.

Questions 1 & 2:

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?

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?

The cities consider the AESO's sessions to be useful for understanding the positions of various stakeholders.

Question 3:

Are you supportive of the AESO's preferred rate design? Why or why not?

In prior consultations and correspondence, the cities have framed their previous comments based on four over-arching principles that they support.

1. Reduce and eventually eliminate the amount of transmission cost recovered from a charge that is based on use during only one hour of the month.
2. Transition toward a tariff where the billing determinants are defined in advance so that the distribution utility has more opportunity to flow through the same price signal to its customers.

The prospect of discovering which hours are premium priced only after consumption occurs is a concern because it creates an unofficial class of customers who are uniquely equipped to guess the peak period and avoid tariff charges. The majority are either not equipped to guess or do not have the same opportunity to avoid tariff charges even if they could guess.

3. New tariff charges should be simple and accessible so that more end-use customers can understand broadly which behaviours and usage patterns are to be rewarded.
4. New tariff charges should promote better utilization of the system that exists.

The AESO's proposed rate design is marginally simpler and does reduce the amount of transmission cost recovered during one hour of the month. However, the period to which the price applies is still not known in advance, so the issue is not actually addressed. Moreover, reducing emphasis on a per-MW charge in favour of a per-MWh charge is a step backward in that it would charge more for higher load factor customers compared to current day. In effect, better utilization is penalized. On this basis, it is difficult for the cities to support the AESO's proposal.

Overall, the cities would rank "Bookend A" from Session 2 and Proposals 3 and 4 from Session 3 ahead of the AESO's current proposal. Bookend A and Proposals 3 and 4 have the same upside as the current proposal but have an end-goal of eliminating the coincident metered demand charge entirely. Moreover, they also promote better utilization.

Question 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)*
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For the most part, the AESO's rate design objectives are not incompatible with the cities' principles. However, the AESO's interest in minimizing disruption may be hindering the AESO's ability to focus on the right or corrective solution for the long run. Minimizing disruption is a laudable goal, but it should be considered sequentially: start with the desired end-state, then work toward a transition or path to that outcome that will minimize disruption.

One message that factored predominantly in the AESO's presentation is that usage during many hours affect the need for system expansions. The AESO's conclusion is to depend more on a per-MWh charge, a price signal that does not discriminate whether it is the user's first or last MWh or whether the MWh was recorded at 3 am or 3 pm. The AESO appears to recognize that, notwithstanding the circumstances affecting system stress and the need for future expansions are nuanced, broad postage-stamp price signals are the pragmatic solution. Where the cities do not agree with the AESO is that a per-MWh charge is *the* pragmatic solution because this signal is too blunt.

Alternatively, the same cost-based argument could be used to support a ratcheted per-MW demand charge because such a charge does not discriminate as to when and how many times a peak is reached: one peak per year can matter just as much as reaching the same peak every week. This price signal also communicates that usage at 3 am is not necessarily problematic, although a peak at 3 am could be just as impactful to system planning as a peak at 3 pm. This would be particularly true if major loads in a particular planning region all

shifted load to the overnight period. Unlike the proposed per-MWh charge, however, holding the current per-MWh charge constant and recovering more cost from a ratcheted demand charge will reward better utilization.

Question 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.

As mentioned above, the cities are of the view that the AESO could improve upon its rate design proposal by focusing on minimal disruption only after the other objectives are best met. The desired end state need not be achieved in a single step, but a transition plan need not be complicated. Impacts can be mitigated by gradually reducing the old charge while gradually increasing the new charge.

Question 6:

Please describe any areas in which you are aligned with the AESO's preferred rate design.

Please see the cities' response to question 3.

Question 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?

To the extent that a billing determinant changes from a 15-minute measurement to a one-hour measurement, billing determinants have changed in the AESO's proposal even though

the subsequent analysis proceeds as if they are the same. As long as all parties understand that the AESO's proposed rate is indicative only and the AESO is not making firm rate mitigation commitments to transmission-connected customers based on this analysis, the cities do not have any concerns.

Questions 8 and 9:

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.

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?

The cities do not have enough information to form an opinion on the AESO's proposal.

In earlier sessions, the cities suggested that the AESO first resolve whether storage is a unique and useful means to optimize the transmission system, and if so, how optimization is best achieved. Once these questions are resolved, it becomes much easier to conceive of a pricing scheme that supports this objective.

Slide 71 suggests some attributes of storage that may be beneficial, though they are broadly described and could apply to more than just storage. The chosen approach to rely on an opportunity rate also seems to imply that the AESO does not consider storage to be unique because it deems a general rate class to be sufficient. Opportunity rates are difficult to implement for the reasons the AESO has noted: particularly the difficulty to ensure that it is attracting new customers and not existing customers who would otherwise be willing to pay the regular rate. The potential problem here is that so many qualifications will be necessary that the opportunity rate becomes a de facto storage rate anyway.

On the other hand, the AESO also notes that the benefits are situation and location specific, and that the qualification for the opportunity rate will need to take this into account. This might have implications for uptake because if the location changes and the storage provider's

costs are sunk, this might be perceived as additional risk and negatively affect the project economics.

Ultimately, the cities remain uncertain as to how the AESO believes energy storage should be deployed and utilized to benefit the transmission system. If it has a need related to specific operating conditions, the best treatment might be to publicly tender and procure service outside the tariff so that the AESO can contractually define what service is required. If the transmission system has no need for storage, then perhaps few or no accommodations are required. This is not to say that storage is unwelcome, just that the value or benefits are not transmission-related and the transmission system should not be making extra efforts to favour one technology over others if it brings no benefit. The point being is that we have yet to establish whether the AESO believes there is a unique benefit to storage, and if so, to describe how the benefit is unique.

Questions 10-15:

Do you have any comments on the AESO's targeted engagement approach for mitigation discussions?

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.

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

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?

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?

Do you have any additional implementation considerations the AESO should consider?

Ordinarily, the cities would be concerned that the above principles focus on protecting a customer from the price impact without necessarily requiring a behavioural change as well. In other words, appearing to guarantee no more than a ten percent rate impact with no strings attached may not be prudent. Nevertheless, the AESO's proposal does not appear to encourage any behavioural shift for price-responsive loads and so such concern is not as high of a priority for this situation.

With improvements to rate design to encourage better utilization, the cities suggest that phasing in new charges while phasing out old charges is a more effective and less burdensome approach than the case-by-case process indicated here. The pace of change can be selected based on the expected impact for the most-affected customers, but because the tariff applies to everyone (as opposed to a discounted tariff applying to some customers), then price responsive loads are rewarded to modify behaviour as well.

Question 16:

Do you have additional clarifying questions that need to be answered to support your understanding?

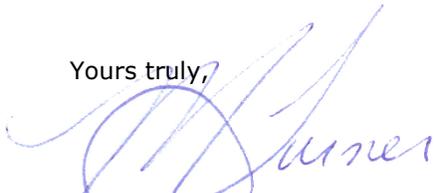
Please see the cities' response to questions 8 and 9.

Question 17:

Additional comments

The cities undertook to provide fulsome responses to the above questions and have no additional comments. Should any of our comments require further clarification, please feel free to contact me at (403) 781-7691.

Yours truly,



Michael Turner
President

cc: Jim Jorgensen, City of Red Deer
Jason Drenth, City of Lethbridge