Stakeholder Comment Matrix – Dec. 10, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 4

Period of Comment:	Dec. 10, 2020	through	Jan. 12, 2021	**Contact:**	Akira Yamamoto
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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 **Jan. 12, 2021**.

The AESO is seeking comments from Stakeholders on Session 4. Please be as specific as possible with your responses. Thank you.

	Questions	Stakeholder Comments
1.	Please comment on Session 4 hosted on Dec. 10, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Yes, Session 4 was valuable. It provided a good opportunity to review and discuss the proposals made in the previous session. ***Energy storage should be separate out at its own tariff initiative*** We find the scope of the meetings to be mixed and confusing with discussions at a higher level, bulk and regional tariff design, and then at a more granular level, energy storage treatment. We view the differences in these consultations to be significant and the consultation on energy storage has suffered (with less progress) due to its relative (smaller) significance compared to bulk and regional tariff design. As suggested in our previous comments, we recommend that the AESO separate the consultation on energy storage from the bulk and regional tariff design.
2.	Do you have a view on whether an embedded or marginal cost allocation approach will more appropriately meet the AESO's rate design objectives? Why?	TransAlta provides the following assessment of the current embedded cost and a marginal cost allocation approach following the five design objectives selected by the AESO. We note that both approaches must fully recover all embedded costs under the cost of service legislative framework as such the assumption is that even if a "marginal cost allocation approach" were applied any shortfall or surplus between embedded and marginal costs would ultimately be recovered/refunded to customers.

		(1) Reflect Cost Responsibility The embedded cost and marginal cost allocation approaches rank similarly in reflecting cost responsibility because both approaches must ultimately provide for the recovery of embedded costs under cost of service regulation. Neither approach truly measures or attempts to allocate costs based on the "benefit and value transmission customers receive from the existing grid" (they allocate effectively deemed a value of transmission benefit that is established by the actual cost of the system). That said, it is more likely that a marginal cost approach that allocates costs based on incremental cost and not on the cost of the existing grid could deviate more from achieving this design objective. We would further note that the embedded costs of overbuilt transmission (built well in advance of need) can create significant dislocations between the cost and benefit/value. In other words, excess transmission beyond the needs of customers does not translate to higher benefit or value for customers. (2) Efficient Price Signals To the extent that the embedded and marginal cost approaches reflect different values by billing determinant, the marginal cost approach is likely to provide a more representative price signal in that it would attempt to quantify the expected future cost for an increment of the selected billing determinant. The embedded cost approach is historical/backward looking and, where future build/cost are expected to deviate significantly from the past, could provide inefficient price signals that under or over-estimate future costs. The AESO's definition of an efficient price signal is a "Price signal to alter behavior to avoid future transmission build". If this definition is accepted, then the greater the costs that are allocated through a billing determinant that a customer can respond to would be an efficient price signal. In other words, a $10,000/MW/month charge is a stronger signal than a $3,000/MW/month charge and would likely incent a stronger customer behavioural response. (3) Minimal Disruption Obviously, maintaining the existing embedded cost approach is likely to be the least disruptive for customers that have responded to the 12 CP price signal and invested to reduce transmission costs. The marginal cost approach may be more disruptive because it is applying a different approach than the current embedded cost approach. However, a

		change from the current embedded cost approach to new/different embedded cost approach may be equally or more disruptive (for example, allocating more costs using a billing determinant that is not 12 CP based). (4) <u>Simplicity</u> The marginal cost approach would involve introducing the complexity of calculating the marginal cost of transmission. This would be a departure from the current approach which does not rely on calculating or identifying the marginal cost for any change billing determinants. The current approach is relatively non-contentious because it utilizes actual costs and does not require estimates of expected future costs or establishing the expected impact on changes in billing determinants to those cost estimates. (5) <u>Innovation and Flexibility</u> The existing embedded cost tariff design has provided the price signals and incentive to innovate through price responsive behavior and reducing their reliance on grid delivered power. As noted by the AESO, this has led to a "decline in 12-CP billing determinants and resulting cost recovery in 2019".[1] Arguably, the reduction in cost recovery in 2019 represents "pushing costs to other customers". A marginal cost approach may also provide optionality for transmission customers to innovate in response to a more accurate estimate of the expected change in costs related to a change in billing determinant. However, the manner in which shortfalls or surpluses between embedded and marginal costs are handled could create even greater cost shifting to other customers. Moreover, the accuracy of marginal cost estimates and their relationships to billing determinants will largely dictate how much better this approach is than the embedded cost approach but with the additional complexity of managing the potential countersignal that may be created by the way that shortfalls and surpluses are handled. In this regard, the better signal from marginal cost could be unwound by the allocation of shortfalls, which could yield a poorer/more complex signal and still push cost to other customers.
3.	a) Do you have a preference for any of the mitigation options presented at Session 4? Why or why not?	***The objective for any mitigation option should be avoiding the loss of customers***

[1] Slide 23, Bulk and Regional Tariff Design Stakeholder Engagement Session 2, September 24, 2020.

	b) Do you know of any additional mitigation options that have worked in other contexts and might be applicable here. Please specify. c) What do you think the AESO's needs to acheve with its mitigation(s)? Why?	Customers must be provided transparent, easily accessible and understandable information about the impacts to transmission costs whatever mitigation option is applied. Mitigation such as transition bill impact mechanisms may be preferable to phase in tariff changes because they establish ceilings on the impact to end-use customers. In contrast, phase in tariff changes may provide less certainty about and allow for greater impacts to end-use customer. However, the bill impact mechanism will add additional complexity with establishing threshold values, shifting costs from customers above the threshold to customer below the threshold, and deciding on how long the ceilings will be in effect for. ***Customers should be provided with the greatest flexibility to remain on the system*** The more significant the potential impact of the rate design change, the more options the AESO should provide customers to manage those impacts. In this regard, it is difficult to express a preference for mitigations options without knowing the bulk and regional rate design that the AESO intends to propose and how different that design may be from the existing design. At a minimum, the AESO should consider the use of adjustment mechanisms contract change, and load attraction/retention rates. Additionally, the AESO should consider the wider application of interruptible/standby rates not only as a mitigation option but as a basis for a more modernized tariff design that contemplates the wider adoption of energy storage and greater customer choice with respect to how their electricity needs are met (customer choice). ***Load and customer growth is the solution not rate design*** The issues that AESO has noted about the existing rate design in terms of high charges and declining billing determinants is not going to be addressed by rate design alone. It is clear in the AESO's work presented in its *Delivered Cost of Electricity Estimates* study that high transmission costs have contributed to a situation where self-supply is a highly attractive alternative for large commercial and industrial customers to grid-supplied power. Judicious wires planning in combination with sound rate design needs to set competitively priced grid-supplied electricity as an objective and load and customer growth on the Alberta Interconnected Electric System as its goals. These goals are fully aligned with Alberta's provincial goals with respect to economic growth and prosperity and would deliver on the forecasted need and drivers that underpinned the significant expansion of the bulk (and regional) transmission systems.

		The risk with an approach that views rate design as the solution to a high embedded cost problem is that it is prone to design rates that attempt to capture customers. This runs counter to technological, environmental and social trends that are driving down the cost of renewable and low emission generation (as an alternative to wires and large generation), favour source and sink co-location, and encourage electric vehicles and customer choice (through technological innovation/disruption).
	Questions	**Stakeholder Comments**

4.	Are you supportive of the areas of agreement presented at Session 4? Why or why not? The areas of agreement presented include:
	
	Efficient Price Signals
	• Price signals matter
	  ○ Tariff charges provide incentives for customer behavior
	Cost Responsibility
	• Recognize that more than just load behavior drives transmission development
	• We are dealing with an evolving system
	  ○ Current and future use may differ from what was that originally planned
	Minimal Disruption
	• Transmission costs have risen
	  ○ Tariff charges are more important now than ever before
	• Minimize disruption, mitigate rate shock
	  ○ It is not in anyone's interest to reduce the number of ratepayers
		TransAlta is generally supportive of the areas of agreement presented in Session 4.
		(1) <u>Efficient Price Signals</u>
		The energy-only market design is premised on the wholesale electricity market delivering clear price signals to support efficient decisions on when to add/retire generation. At the outset of the deregulated market, wholesale generation/electricity costs accounted for a significant majority of the overall delivered cost of electricity and transmission costs were low. Given the low cost of transmission, developing on-site generation to reduce/avoid transmission cost was generally uneconomic.
		Over the span of two decades Alberta's transmission costs have increased nearly four-fold and have risen to a level that is almost as high as wholesale generation cost. Concurrently, natural gas has become a highly competitive fuel source, smaller scale generation has become more competitive with larger scale generation, and renewable generation has significantly reduced in cost. Moreover, environmental and social trends have encouraged customers to rethink their consumption behaviours and manage their environmental footprint. These trends have generally increased the importance of factors other than wholesale electricity cost on customer behavior including to a great extent, transmission cost.
		Two things are very clear today: (1) Alberta's transmission tariff charges are significant and are now amongst the highest in Canada, and (2) tariff charges are high enough to drive customers to develop self-supply generation and incent other behavior responses such as reducing consumption at system peaks.
		(2) <u>Cost Responsibility</u>
		Yes, transmission planning drives transmission development and this takes into account more than just load behaviour. It also takes into account generation supply development which is driven by a myriad of factors that drive competition

		to develop the lowest cost sources of generation. However, generation supply development is ultimately responsive to load behavior as private investors/generators are investing into opportunities with the aim to supply customers and future demand for electricity. We also agree the the transmission system is evolving and that current and future use can differ from what was originally planned. This is a critical risk to manage and supports a case and need to add other tools in the Alberta wires development framework such as non-wires alternatives that may reduce planning risk and preserve the optionality to delay expensive, long-lived transmission investment. (3) Minimal Disruption TransAlta agrees that transmission costs are higher than ever before and therefore more important. It is critical that we respond by containing these costs and learn from past lessons to avoid further contributing to transmission cost issues. We also agree that the loss of customers and grid supplied load will serve to make the issue of high transmission costs worse. However, we must also be cognizant that attempting to capture customers to mitigate the risk of ratepayer defection is unlikely to successful. Customers have choice: they can choose to develop their own supply and, ultimately, choose not to operate in Alberta.

5.	Are you supportive of the areas of disagreement presented at Session 4? Why or why not? The areas of disagreement presented include:
	
	Efficient Price Signals
	• Are status quo price signals are efficient?
	  ○ Price signals in tariff have reduced the cost of energy to other load
	• Are price signals forward looking?
	  ○ Price signals are efficient to the extent changes in customer behavior reduce the need for future transmission costs
	
	Cost Responsibility
	• Is the primary objective cost causation, or cost responsibility?
		TransAlta comments on the areas of disagreement are as follows:
		
		(1) Efficient Price Signals
		
		We understand that the AESO's concern is that the customer response to the 12-CP billing determinant has resulted in the decline of 12-CP billing determinant. This would recover less bulk system charge from those customers that have responded to that price signal and recover more from customers that do not respond to that signal. Other than noting this observation, we have little information to judge whether this allocation is fair but it would appear justified by the design - the design was created to incentivize 12-CP response and appears to have been successful.
		
		Given that the price signals are based on an embedded cost approach, it is clear that the historical costs are used. We understand the future transmission costs are not planned or expected to be at the same pace or magnitude as they have been historically, as such, we would expect that the use of historical costs would not produce price signals that would be the same as forward looking costs.

	• Does the initial rate design still achieve goal of cost causation since transmission costs have risen and load behaviour has not influenced those costs? **Minimal Disruption** • Now is not the time for change or time to stop the bleeding? ○ Economic climate, policy uncertainty, change impacts a few very negatively and many slightly positively • Does rate mitigation need to be permanent or will customers adapt if temporary?	(2) <u>Cost Responsibility</u> The primary objective must be viewed within the context of the legislative and policy framework (which, in Alberta, has established cost responsibility) as well as applicable rate design principles including cost causation. It is clear that transmission costs are driven by transmission planning that considers more than just load behavior. Where transmission costs can be clearly delineated to be driven by load behavior, those costs ought to be allocated to loads based upon those drivers. To the extent that transmission costs are driven by other factors such as policy or supply development, they could/should be allocated to load using factors that do not differentiate loads based on behavior. (3) <u>Minimal Disruption</u> We are sympathetic to concerns raised about the significant uncertainty that load customers face at this time. However, the review of the bulk and regional tariff design was directed by the AUC and is a tariff matter that has been raised in previous regulatory proceedings and pre-dates many of the drivers for heighten uncertainty today. Respectfully, there is no ideal time for change for any party that is likely to be face higher costs associated with the change. We also believe that it is important to comprehensively review the bulk and regional tariff design to meet the AUC's direction so as to bring some resolution to the concerns that have been raised previously. As suggested in our comments to Session 4: "We recommend that the AESO use the remaining time and resource effort to perform some cost analysis that could help in the future but may also help to focus the tariff modernization on changes that could provide relief under the current design, support load growth and the competitiveness of the Alberta market, and create new tariff features that can be leveraged in the future if built into our framework." We believe that we ought to comprehensively review the bulk and regional tariff design to meet the AUC's direction. With respect to rate mitigation, as stated in our response to Question 3 above, it is difficult to provide a view about specific mitigation options without knowing what the rate design change may be but we would recommend that: "the more significant the potential impact of the rate design change, the more options the AESO should provide customers to manage those impacts." We would consider all rate mitigation options such as phase ins or bill impact options be temporary but for those mitigation options such as new rates such as interruptible/opportunity rates could be permanent features of the new design.

6.	Are there considerations that the AESO could include in its rate design proposal that would move you to at an area of agreement on any of the areas of disagreement (refer to question 5 above)? Please specify.	No additional comments or considerations at this time.

7.	Are you supportive of the areas of agreement for energy storage presented at Session 4? Why or why not?
	Energy storage areas of agreement:
	• Energy storage is unique in that it is not the producer or the end consumer of electric energy, nor is it the transmitter
	• Energy storage can participate in Alberta's electricity use-cases by providing
	  ○ Energy Price arbitrage
	  ○ Operating Reserves
	  ○ Non-wires solutions for transmission deferral
	• Energy Storage should be treated in a fair, efficient, and openly competitive (FEOC) manner
		TransAlta provides the following comments on the AESO's areas of agreement:
		• Electricity storage is not a producer or end-consumer of electric energy and is not a transmission wire used to transport electricity. However, energy storage is not unique: it exists in many forms (e.g. hydro reservoir storage).
		• Electricity storage is currently limited to participating in Alberta's market with energy price arbitrage and operating reserves. There is no competitive mechanism for electricity storage to be considered as a non-wires solution for regulated service. Electricity storage also provides value in terms of providing other types of ancillary service as well as on-site power quality. Another end-use case is Alberta is for self-supply sites to utilize electricity storage to address the legislative prohibition from exporting without an industrial system designation or under the *Microgeneration Regulation* (and other existing exemptions).
		• We agree that energy storage should be treated fairly and compete in an efficient and openly competitive market.

8.	Are you supportive of the areas of disagreement for energy storage presented at Session 4? Why or why not? **Energy storage areas of disagreement:** • Is energy storage a user of the grid or a component of the grid or both? • Does energy storage use the network for the Alberta specific use-cases? • Should energy storage pay for inflows and outflows like every other network user or not? • Should energy storage pay for one or more of administration, operations and maintenance, pod, regional, bulk charges?	TransAlta provides the following comments on the AESO's areas of disagreement: • Electricity storage is a technology type that can used in many different ways including on the grid, behind the meter or both. • Electricity storage may use the transmission system for charging and discharging purpose but is not restricted to only charging and discharging using transmission infrastructure (they can charge behind the meter). • Electricity storage should not pay for inflows if those inflows are directed/controlled by the system controller. As an example, electricity storage can provide frequency regulation services and could be directed to charge by the system controller in the event of a frequency excursion in the performance of the service – the storage asset is being directed to utilize the transmission system to support reliability and not at the discretion of the legal owner.

		• Electricity storage that is co-located with generation behind-the-fence and manages in charging to ensure it only utilizes on-site generation does not utilize the transmission system at all. Such assets should not be charged any transmission costs other than those that apply to supply transmission service because they are managed such that they act effectively as a generation only asset.
9.	Are there considerations that the AESO could include in its rate design proposal that would move you to at an area of agreement on any of the areas of disagreement for energy storage (refer to question 8 above)? Please specify.	***Energy storage rates should reflect the condition of interruptibility the resource owner is willing to accept*** The AESO should develop energy storage rates that reflect the fact that energy storage assets are likely willing to accept a much greater level of interruptibility that existing DOS rates reflect.
10	Do you have any comments on the AESO's proposed stakeholder engagement process, including the mitigation process, for the remainder of the Bulk and Regional Rate Design engagement?	No comments at this time.
11	Do you have additional clarifying questions that need to be answered to support your understanding?	No additional clarifying questions at this time.
12	Additional comments	No additional comments at this time.

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