

Stakeholder Comment Matrix – March 19, 2020
Bulk and Regional Tariff Design Session 1 – March 13, 2020



Period of Comment: March 19, 2020 through April 9, 2020	Contact: [REDACTED]
Comments From: ENMAX	Phone: [REDACTED]
Date: 2020-04-09	Email: [REDACTED]

Instructions:

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 comment matrix to tariffdesign@aeso.ca by **April 9, 2020**.

Three Tariff Design Options presented at the session:

- Option 1: Rate reflects costs.
- Option 2: Rate reflects benefits.
- Option 3: Hybrid – Rate reflects both cost and benefit.

Five Tariff Design Guiding Objectives presented at the session:

1. Effective long-term price signals.
2. Facilitate innovation and flexibility.
3. Reflect accurate costs of grid connection and services.
4. Explore options within legislation and regulation.
5. Path to change that is effective and minimally disruptive.

The AESO is seeking comments from Stakeholders with regard to the following matters:

	Questions	Stakeholder Comments
1.	<p>Please comment on the Engagement Session 1 webinar facilitated by the AESO on March 13, 2020. Was the session valuable? Was there something we could have done to make the session more helpful? Please advise and be as specific as possible.</p>	<p>The AESO’s engagement process is helpful in providing stakeholders with an opportunity to understand the AESO’s preliminary thoughts on its upcoming tariff application, which it plans to file with the AUC later this year. That said, in light of recent events relating to the COVID-19 pandemic, further clarity is needed on how this will impact the AESO’s timelines going forward. The process should not be rushed and stakeholders require a reasonable opportunity to participate in the consultations and provide feedback.</p> <p>As it relates to Session 1, rather than going through the Rate Design and Impact Tool, a brief summary on how the tool is intended to work would have been more beneficial. Stakeholders also found it difficult to fully understand the AESO’s use of a “diversity factor” and how this would be applied.</p> <p>Specific comments on the AESO’s tariff design objectives and options are included below.</p>
2.	<p>Please comment on the pros, cons and tradeoffs of Option 1: Rate Reflects Costs.</p> <p>Do you have additional clarifying questions that need to be answered to support your understanding?</p> <p>Do you feel anything was missed or would present a significant obstacle or impact with this option?</p> <p>If yes, please be as specific as possible.</p>	<p>Note: Throughout ENMAX’s comments, notation like “S21” refers to slide 21 in the AESO’s March 13, 2020 “Bulk and Regional Tariff Design” presentation to stakeholders.</p> <hr/> <p>On S43 the AESO states that an Option 1 pro is that it provides “more locational and targeted price signals to optimize current and future needs.” It argues that Option 1 continues to encourage behaviour to avoid peak periods in a way that can help reduce future transmission costs. It also argues that the incentive to reduce demand is better aligned with transmission planning, which is based on flows in regions/areas.</p> <p>ENMAX does not agree that Option 1 encourages behaviour that (necessarily) reduces future transmission costs. It is true that, under Option 1, customers can reduce their transmission charges by reducing their consumption at times of region/area peak demand. However:</p> <ul style="list-style-type: none"> • As noted on S6 in the AESO’s presentation on learnings from the Transmission Tariff Working Group (“TTWG”), reducing load in some areas of the province would increase, rather than decrease, the stress on the transmission system. • As the AESO also notes in the TTWG learnings, there is a zero to moderate

		<p>correlation between system or regional loads and line flows, and any correlation varies by region, by on- versus off-peak hours, and by year. The AESO also notes that correlation results do not indicate which loads should be increased or decreased and at what times.</p> <ul style="list-style-type: none"> • Since generation dispatch is a main driver of line flows and the dispatch can vary considerably depending on the amount of wind generation (and increasingly the amount of solar generation), there will often be no value in demand reductions. A “good” area for demand reductions in one hour may be a “bad” area for demand reductions a short time later. (See also ENMAX’s comments on long-term price signals below.) • Infrastructure costs are generally driven by non-coincident peak demands on individual lines and transformers. Reducing load at a point of delivery from (e.g.) 100 MW to 90 MW in July provides no system benefit if the annual peak demand is 120 MW in December. <p>In view of the foregoing, there is generally no benefit to rewarding market participants for reductions in net demand through either load reductions or increases in the output of on-site generation.¹</p> <p>Another problem with Option 1 is that, as stated on S38, the AESO would be required to categorize transmission assets as intra-regional or inter-regional. Such a categorization can be highly subjective and open to change, and in any case, real-time power flows do not respect such categorizations. In addition, region/area categorizations will become less and less relevant as the amount of intermittent renewable generation increases, since a region/area can shift from being a net exporter to a net importer and then to internally balanced in a matter of hours. Also, region/area boundaries are frequently natural or political and have nothing to do with the electrical characteristics of the transmission system; indeed, a load just outside a region boundary may have more effect on power flows in the region than a load located inside the region.</p> <p>Load reduction at the time of system peak is more relevant to the need for generation (including the generation reserve margin) than to the need for wires. Customers who reduce demand at peak times are (appropriately) rewarded by the avoidance of high</p>
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¹ ENMAX acknowledges that there may be specific circumstances in which demand reductions or local generation can provide a system benefit. Where such circumstances exist, the AESO could enter a contract with one or more market participants (competitively tendered where possible) to reduce demand or increase generation when real-time or short-term-forecast conditions dictate.

		<p><u>energy</u> costs. Since the cost of the transmission system is essentially fixed in the short term and it will take many years for any tariff-related incentives to produce a meaningful benefit given high sunk costs (S17), reductions in peak demand will result more in cross-subsidization than effective price signals.</p> <p>The statement that region/area peak demand is a proxy for power flows and might therefore reflect accurate costs of grid connection and services seems inconsistent with the AESO's statement that there is zero to moderate correlation between region/area demand and line flows.</p> <p>As a general comment, the past decade's overbuild of transmission wires has produced a serious problem to which there is unlikely to be a tariff-based solution. That said, the problem can be mitigated to some extent by modifying the tariff to ensure that any tariff-based incentives reflect the true benefits of demand reduction or on-site generation.</p>
<p>3.</p>	<p>Please comment on the pros, cons and tradeoffs of Option 2: Rate Reflects Benefits.</p> <p>Do you have additional clarifying questions that need to be answered to support your understanding?</p> <p>Do you feel anything was missed or would present a significant obstacle or impact with this option?</p> <p>If yes, please be as specific as possible.</p>	<p>Under Option 2, the rates charged to transmission customers consist of a fixed demand charge and an energy charge. With the exception of transmission-system losses and (possibly) certain ancillary services, transmission costs are not dependent on energy volumes. As such, the use of energy charges in the transmission tariff should be minimized. Given its focus on fixed demand charges rather than variable demand charges, Option 2 is superior to Option 1.</p> <p>The AESO's comment (S49) that Option 2 reflects the value of receiving energy through the grid should be modified to state that it reflects the value of a connection to the grid. Benefits like voltage and frequency stability and immediate access to backup generation are real benefits, but they do not always manifest in the exchange of energy through the grid. This is one of the reasons that energy charges generally do not provide efficient price signals with respect to transmission-system utilization.</p> <p>Regarding cons, the AESO suggests (S50) that Option 2 does not provide a signal to reduce energy consumption at times of system stress. This may be a con in specific circumstances, but not generally, since a signal to all customers to reduce demand is non-local and is therefore unlikely to produce only the desired results in only the desired locations. As noted above, other mechanisms can and should be used to encourage demand reductions in specific areas of the system under specific (and real-time) conditions. For example, the AESO (for transmission) or the DFO (for distribution) could issue an RFP that would provide for local generation and/or demand response to provide non-wires solutions to system stresses only when those stresses manifest in real time.</p> <p>ENMAX agrees that the costs of transmission are not proportional to use in all hours</p>

		<p>(S50), but fixed demand charges² do a reasonable job (in the context of the existing regulatory framework) of reflecting the essentially fixed cost of providing transmission wires. (Losses and (perhaps) ancillary services should be treated differently than wires costs.) ENMAX also agrees that the recovery of fixed wires costs through an energy charge distorts the energy market price signal (S50). It also unfairly penalizes high-energy-use customers.</p> <p>Regarding the tradeoff on energy charges that consumers pay in relative proportion to use (S52), care must be taken to distinguish between <i>energy</i> use and <i>transmission</i> use. Consumers' use of the transmission seldom is in proportion to their energy use because the transmission system provides a "call option" that they can choose to exercise (by consuming energy) or not. A call option has value even when there is no exchange of energy.</p> <p>Under Option 2, the AESO proposes to categorize transmission assets as load/multi-use or competitive market facilitators (S48). As is the case with the inter- and intra-regional categorization proposed under Option 1, the proposed Option 2 categorization is highly subjective and not particularly useful: since all energy that flows through the transmission system is the product of a competitive market, and since every energy transaction requires a wire connection between generators and loads (along with a stable voltage, a stable frequency, etc.), there is no meaningful way to distinguish competitive assets from load/multi-use assets.</p>
4.	<p>Please comment on the pros, cons and tradeoffs of Option 3: Hybrid – Rate Reflects Cost and Benefit.</p> <p>Do you have additional clarifying questions that need to be answered to support your understanding?</p> <p>Do you feel anything was missed or would present a significant obstacle or impact with this option?</p> <p>If yes, please be as specific as possible.</p>	<p>In ENMAX's view, the hybrid option is simply a subjectively weighted combination of the pros and cons of the other two options. Option 2 is superior to Option 1 in almost all respects, so a hybrid option is of little value. ENMAX has no other comments on Option 3.</p>

² For clarity, by "fixed demand charges" ENMAX means demand (\$/MW) charges that do not vary from month to month. As an example, a transmission customer who is the owner of a point of delivery that peaks at 50 MW in January would pay a 50 MW demand charge in all months, likely subject to a ratchet if that 50 MW level is exceeded.

5.	<p>How effectively do you feel Option 1: Rate Reflects Costs meets the five Tariff Design Objectives?</p> <p>Please be as specific as possible.</p>	<p>For the reasons noted above, ENMAX does not believe that Option 1 meets the tariff design objectives. Please see ENMAX’s comments on the design objectives below.</p>
6.	<p>How effectively do you feel Option 2: Rate Reflects Benefits meets the five Tariff Design Objectives?</p> <p>Please be as specific as possible.</p>	<p>ENMAX is of the view that Option 2 better reflects the design objectives better than either Option 1 or Option 3, especially if the use of energy charges to recover costs that are essentially fixed is minimized.</p>
7.	<p>How effectively do you feel Option 3: Hybrid – Rate Reflects Cost and Benefit meets the five Tariff Design Objectives?</p> <p>Please be as specific as possible.</p>	<p>For the reasons noted above, ENMAX does not believe that Option 3 meets the tariff design objectives. Please see ENMAX’s comments on the design objectives below.</p>
8.	<p>Do you have additional clarifying questions that need to be answered to support your understanding of the Tariff Design Objectives and corresponding assessment of the three Tariff Design Options presented at the session? If yes, please be as specific as possible.</p>	
9.	<p>Additional comments</p>	<p>On S17 the AESO states that it is “Look[ing] for new ways to achieve efficiency within existing regulation and legislation.” All of ENMAX’s comments in this document are to be interpreted in the context of existing regulations and legislation.</p> <p>ENMAX does not support the first guiding objective because it will be of limited benefit. The reasons are as follows.</p> <ul style="list-style-type: none"> • As the AESO itself notes, transmission costs are sunk and high. As such, it will take many years before any long-term price signal can provide a measurable benefit for transmission system development or utilization. The benefits might well not show up before technological changes, shifts in policy or legislation, and patterns of load and generation growth cause any long-term signals sent in (say) 2021 to be of little or no value. • Over the next few years it will be critical to send a tariff signal that reflects the true economics of on-site generation. As it stands, the tariff does not properly charge customers with on-site generation for the benefits of being connected to the grid. This makes on-site generation appear to be more economic than it really is and it results in subsidies being paid by customers who do not have

	<p>on-site generation. Having an incorrect economic signal for on-site generation is likely to have a greater impact on transmission development and utilization in the next five to ten years than will any long-term signal.</p> <ul style="list-style-type: none"> • Their intermittent and seasonal nature means that, if there is a high penetration of renewable generators, power flows on a windy January evening will bear little if any relationship to power flows on a hot July afternoon even if total demand is similar. In other words, power flows will change significantly depending on the weather—including the wind and the sun. Consequently, it is likely to become more and more difficult to plan for anything other than a very flexible transmission system for which long-term signals will have little planning value. • The increasing penetration of low-capacity-factor renewable generation, coupled with a policy of unconstrained transmission, is likely to drive the per-MWh cost of wires higher, further increasing the incentive for consumers to avoid transmission costs by either exiting the grid or building on-site generation. This amplifies the need to provide correct economic signals regarding the benefits of a grid connection, as stated above. • An effective long-term price signal is, of necessity, reasonably stable. The objective of stability is inconsistent with the objective of facilitating innovation and flexibility. <p>For all the foregoing reasons, long-term signals might be of limited value to the Alberta Interconnected Electric System. If a long-term signal is to be used, care must be taken to ensure that it reflects real system benefits.</p> <p>The remaining objectives are reasonable, though emphasis should be given to accurately reflecting the costs of a grid connection and related services and to charging appropriately for them—consistent with the principle of cost causation. The Commission has frequently stated the importance of that principle.</p>
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Thank you for your input. Please email your comments to: tariffdesign@aeso.ca.