

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



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| Period of Comment: March 19, 2020 through April 9, 2020 | Contact: [REDACTED] |
| Comments From: AltaLink Management Ltd. | 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 |
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| 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 session was helpful in explaining each option. More examples for how each option would work would have provided more clarity and understanding. Bill impacts and alternative transition mechanisms for each option would have been helpful to allow each customer to understand how each option will affect them today and into the future.</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>AltaLink has provided the pros and cons of Option 1 below:</p> <p><i>Pros:</i></p> <ul style="list-style-type: none"> • In Option 1 it is recognized that 12 CP at the “bulk” level is not effective at optimizing the grid and that a link between the tariff and transmission planning can only be done at a more regional/area level; however it appears to AltaLink that the tariff design proposed in Option 1 <u>does not</u> achieve an alignment between incentives (i.e. costs that can be avoided by lowering consumption) and benefits of such reduced consumption in reducing a transmission constraint or build. <p><i>Cons:</i> Option 1 attempts to use the same postage stamp rate across all areas/regions which will lead to inefficient outcomes in that:</p> <ul style="list-style-type: none"> ○ Customers would be incented to curtail in areas of capacity surplus and receive a reduced bill with no corresponding benefit to the transmission system (i.e. a cross-subsidy would then have to be paid by other ratepayers); ○ Costs avoided by customers may have little or no corresponding benefits in terms of relieving transmission constraint or deferring a transmission build; ○ Customers will be incented to curtail load in a region/area that has surplus generation which may then increase or cause a constraint; a perverse outcome as a customer is incented to advance a transmission build; and ○ It will be difficult to complete a cost/benefit assessment between a capital build that the tariff is trying to defer and the incentive paid to |

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| | | <p>customers on a postage stamp basis.</p> <ul style="list-style-type: none"> • The proposed area/regional CP design would be <u>no more</u> effective at deferring transmission build than the current bulk 12 CP design and may actually lead to more transmission build. • Under Option 1, it appears that a customer is incentivized to curtail its load while it is possible that such load curtailment in a defined area/region may have no impact (or very minimal impact) on reducing a constraint or deferring a transmission build in that region/area. A customer should only receive a benefit if its curtailment actually results in reducing the constraint that is recognized by the AESO in its planning. • Slides 43 and 44 appear to be only using load data to determine an area/regional peak; this may further distort price/locational signals given Alberta's postage stamp rate design. For example, in a transmission/outflow constrained area, which would be the result of a large amount of generation in the area/region, the generation profile will have a substantial impact on the area/regional peak and outflow. To not include generation will provide an incorrect area/region peak or outflow from the area. <ul style="list-style-type: none"> ○ The area/region CP would be more meaningful if net flows were used (i.e. include generation). • There is no price certainty for all customers. Customers who are unable to take advantage of managing around a regional CP will have uncertainty of prices due to the actions of others. Where other customers are able to avoid the regional CP – and not necessarily defer any cost – the costs they avoid will be passed onto the rest of the region's customers. <p><i>Suggestions:</i></p> <ul style="list-style-type: none"> • A base postage stamp rate structure should be aligned with the fixed nature of the transmission costs. This can only be accomplished with fixed (\$/month) and demand (NCP - \$/MW) type structures. Attempting to design a postage stamp rate to allow for some form of transmission optimization of sunk costs (either at the bulk or region/area level) will be inefficient and will lead to cross-subsidies. <ul style="list-style-type: none"> ○ To provide optimization, flexibility and innovation a postage stamp rate could be complemented with a suite of opportunity services (which could include special types of credits, if allowed under the T-Regs, or non-wires services procured outside of the tariff) that can target |
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| | | <p>specific areas of the transmission grid where optimization is possible and where it can be shown there is a clear cost/benefit. The opportunity services would be designed to reflect locational capacity and constraints with a sharing of the benefits with a customer that can optimize their own use while at the same time provide a benefit to the transmission grid. Region/area opportunity services could be structured to:</p> <ul style="list-style-type: none"> ▪ provide additional value to existing customers who may wish to expand their operation in areas of surplus capacity; ▪ signal optimal areas for new load to locate (i.e. generation constrained areas); and ▪ provide credits (through the tariff) or payments (outside of the tariff) to customers to decrease their loads in locations of constrained transmission. <ul style="list-style-type: none"> ○ If opportunity services are designed properly and directly linked to a constraint (cost) and project deferral (benefit) this will: <ul style="list-style-type: none"> ▪ allow prices to be modified as planning changes, e.g. regional constraints, planning time horizons, new generation/load forecasts. ▪ only provide incentives to a customer if a measurable benefit is determined with the benefits to be shared between the customer and rate payer and thus resulting in reduced transmission rates. |
| 3. | <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><i>Pros:</i></p> <ul style="list-style-type: none"> • In Option 2, it is recognized that 12 CP at the “bulk” level is not effective and that some customers are not paying an appropriate amount for the services the transmission grid provides. • There is also a recognition that transmission grid services should be paid for by all load customers and not avoided by some; however the rate design proposed would allow some customers to avoid costs which leads to cross-subsidies. <p><i>Cons:</i></p> <ul style="list-style-type: none"> • Options 2 does not appear to fully recognize the fixed nature of the transmission |

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| | | <p>build as some of the costs will be recovered through a variable charge (\$/MWh).</p> <ul style="list-style-type: none"> ○ It may be possible for some customers to avoid substantial fixed charges while still receiving services/benefits from the transmission grid. This does not align with slide 50 where the AESO states “Consumers pay in proportion to use - No cross subsidization or cost shifting”. ○ Use of \$/MWh is not a good billing determinant for a fixed cost. <ul style="list-style-type: none"> • Option 2 does not allow for optimization of the transmission grid and reducing future transmission build as there is no incentive in the design for customers to reduce loads in an efforts to defer future transmission builds. • The diversity factor proposal appears arbitrary and not clear as it appears there is no associated relationship between the calculation of a diversity factor and how this relates to the costs caused by those customers as well as the full benefit of grid services provided by the transmission grid. <p>Suggestion: See the suggestions proposed by AltaLink in Question 2 above.</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><i>See questions 3 and 4 for similar pros/cons. A few additional observations specific to the combination of Option 1 and 2 to form a hybrid perspective are as follows;</i></p> <p><i>Pros:</i></p> <ul style="list-style-type: none"> • Option 3 recognizes that the transmission grid provides multiple benefits; usage and services. <p><i>Cons:</i></p> <ul style="list-style-type: none"> • It may be difficult to categorize transmission system assets into load and generation type assets as a number of these assets could be both or a portion of one or another. This could make this allocation exercise meaningless if arbitrary allocations are made. • It appears that a hybrid approach as proposed could exacerbate the cross-subsidies currently available to dual use type customers as they will be able to (i) avoid the area/region CP charges in Option 1 and (ii) also avoid the fixed charges proposed in Option 2. • The diversity factor proposal appears arbitrary and not clear as it appears there is no associated relationship between the calculation of a diversity factor and how this relates to the costs caused by those customers as well as the full benefit of |

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| | | <p>grid services provided by the transmission grid. Such an approach will not address the current rate design issues and will likely result in cross subsidies and introduce a lot of complexity.</p> <p>Suggestion:</p> <p>See the suggestions proposed by AltaLink in Question 2 above.</p> |
| 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><i>Please see the table at the end of the comment matrix.</i></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><i>Please see the table at the end of the comment matrix.</i></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><i>Please see the table at the end of the comment matrix.</i></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> | <ul style="list-style-type: none"> a) More details on economic efficiency objectives are required and how they will be applied including how decisions are made for “trading off” between AESO established transmission tariff redesign guiding objectives and economic efficiency objectives. b) To understand the overall effectiveness of the AESO’s proposed rate designs, please provide an analysis on the effectiveness of each of the proposed options, by planning area/region, in providing long-term price signals to eliminate or defer the “load driven” projects as set out in the AESO’s current 2020 Long term plan. Based on this analysis provide how effective a postage stamp rate applied to load within each area/region will be in deferring future transmission facility costs given that most of the future build cost will be driven by generation (as per the 2020 AESO LTP). In terms of effectiveness, use: not effective; somewhat effective; very effective in the analysis. To complete the analysis, please identify how much load (sum of NCPs) is in each area/region. |

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| | | <ul style="list-style-type: none"> c) To properly assess the effectiveness of each option a complete set (complete with rate design) of the opportunity services proposed (e.g. interruptible service, standby service, and others) will be required (complete with rate design) as well information is required as to how these opportunity services work in unison. d) The opportunity services (Interruptible and Standby) proposed (on slide 64) appear to be trying to address optimization and usage of the transmission grid. If opportunity services can manage these issues effectively then why has the AESO embedded these opportunity services into the Option 1 and Option 2 designs? If Option 1 or Option 2 (or the hybrid) are proposed with these opportunity services could this not lead to “double dipping” by certain customers? Further information/clarification is required to assess the purpose/relationship between a postage stamp rate and opportunity services. e) Each option will require a detailed transition and mitigation plan to assess the rate design impacts on all customers. Principles/objectives for a transition plan should be the starting point. f) Concepts (as proposed in the options) are not very helpful in assessing impacts and how these will be applied on a customer basis, more detailed analysis and design specifics will be required. g) The diversity factor and how this would be applied or incorporated into a rate design is unclear. AltaLink recommends the AESO provide examples of how this diversity factor would be developed and applied to specific customers, including a range of different customer types. There would also need to be an evaluation to see if the diversity factors result in any cross subsidization. h) The AESO recognizes that system peak load is not a dominant measure of system stress or usage (slide 24), but provides options that still rely on peak demand. The AESO’s proposed options should reflect system stress factors, such as generator outages. Peak demand is only one factor or measure of system stress which is used for AESO planning activities. |
| 9. | Additional comments | <ul style="list-style-type: none"> a) Correct billing determinants (i.e. gross metering for DFOs and direct connects) should be an objective of any transmission rate design; gross billing determinants will allow for an efficient tariff design and will assist with diminishing uneconomic bypass opportunities and will limit cross subsidies. b) Interruptible rates should only be offered if there is a corresponding benefit to the transmission system. A detailed cost/benefit analysis should be required |

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| | | <p>for any proposed interruptible rate structure.</p> <p>c) AltaLink asks that the AESO examine the potential to incorporate credits to customers for providing non-wires solutions and other opportunity services in its tariff design. As another alternative, investigate if non-wires solutions can be provided outside of the ISO tariff much like LSSi, but recovered through the transmission tariff. A design should not be considered complete until these avenues are completely explored to ensure an optimal design is realized.</p> |
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Thank you for your input. Please email your comments to: tariffdesign@aeso.ca.

Response to question 5, 6 and 7: Effectiveness of AESO Design Options to Objectives (note that the comments below should be read in conjunction with the points made in questions 2, 3 and 4 as many of the points above could be repeated in the table but have been excluded to reduce duplication)

| Rate design objectives | Option 1 | Option 2 | Option 3 |
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| Price signals | <p>Price signals as proposed are similar to 12CP (except it uses a regional CP) and would have no link to planning decisions/proposed projects.</p> <ul style="list-style-type: none"> Postage stamp rate destroys any linkage between cost/benefit due to load response in a region/area. Price signals in areas of surplus capacity will still encourage curtailment with no resulting benefit (or reduction of costs) to the transmission system. Uneconomic bypass will still be an issue. | <p>Price signals would not incent efficient use of the transmission system</p> <ul style="list-style-type: none"> Postage stamp rates that are fixed in nature without opportunity services do not allow for optimization of the existing transmission grid or future transmission build. | <p>On the surface a hybrid option should allow for better long term price signals, however the design proposed has no link between benefits paid and deferring transmission build. As mentioned above, attempting to design a postage stamp rate to allow for some form of transmission optimization of sunk costs (either at the bulk or region/area level) will be inefficient and will lead to cross-subsidization. Opportunity services should be utilized to incent any form of existing and future transmission optimization.</p> |
| Innovation and Flexibility | <ul style="list-style-type: none"> Overly complex as determination of applicable regions/area boundaries will be overly complicated and open for substantial debate. Inflexible, similar to current design, and would require intensive regulatory scrutiny. | <p>The rate structure on its own provides no flexibility, but coupled with opportunity service rates (innovation) could offer the flexibility and innovation required to optimize the transmission system.</p> | <p>On the surface a hybrid option would appear to offer more flexibility, however as currently proposed it only provides an avenue for higher cross subsidies. See “suggestions” in question 2 for suggested path forward.</p> |

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| <p>Reflect accurate costs</p> | <ul style="list-style-type: none"> • Will likely lead to higher cross-subsidies than current 12 CP design. • Does not value the services provided by the AIES. • Customers could avoid substantial transmission costs with no corresponding benefit to the transmission system. | <p>Appears to value the services provided by the grid; however a portion of the design includes an energy charge. Fixed transmission costs that are paid for via an energy charge (\$/MWh) will lead to some customers being able to avoid paying for the services/benefits the transmission grid is providing to them.</p> | <p>On the surface a hybrid option should be able to provide an appropriate cost structure to reflect the costs of connecting to the grid; however what has been proposed will allow certain customers to avoid substantial costs with no benefit to the grid. The regional CP price signal proposed could lead to higher cross subsidies than currently exist; this would be in addition to the costs that could be avoided if fixed transmission costs are recovered through an energy charge.</p> |
| <p>Options within framework</p> | <p>All options appear to be implementable within the current legislative and regulatory compact; however non-wires solutions and opportunity service rates should be explored completely and included as part of any design to fully optimize the current and future transmission system.</p> | | |
| <p>Minimally disruptive</p> | <p>Cannot comment at this time as further specifics on the designs and detailed analysis will be required including:</p> <ul style="list-style-type: none"> • Assessing the ease of implementation; • How success will be measured, including the economic efficiency principles used to measure success; • Determining customer rate impacts; • Cost/benefit analysis of any proposed optimization rates (e.g. opportunity services); and • Detailed transition plans for those customers that are significantly affected by any proposed rate design option. | | |

Legend:

- Green: Meets objective
- Yellow: Somewhat meets objective
- Red: Does not meet objective