Session 3 – Nov. 5, 2020 Stakeholder Proposal Evaluations

Stakeholder Proposal Evaluations [Posted Nov. 20, 2020]

1. Alberta Direct Connect Consumer Association (ADC)
2. AltaLink Management Ltd. (AML)
3. ATCO Electric
4. Canada West Ski Areas Association (CWSAA)
5. Canadian Renewable Energy Association (CanREA)
6. Capital Power Corporation
7. Cenovus Energy
8. Cities of Red Deer & Lethbridge (c/o Chymko Consulting)
9. Conoco Phillips Canada
10. Consumers Coalition of Alberta (CCA) *[Posted: Nov. 22, 2020]*
11. DCG Consortium (DCG)
12. Dual Use Customers (DUC)
13. Energy Storage Canada
14. ENMAX Corporation
15. FortisAlberta Inc.
16. Heartland Generation Ltd. (HGL)
17. Industrial Power Consumers Association of Alberta (IPCAA)
18. Lionstooth Energy
19. RMP Energy Storage
20. Suncor Energy Inc.
21. TransAlta Corporation *[Posted: Nov. 23, 2020]*
22. Utilities Consumer Advocate (UCA)

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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Colette Chekerda, P.Eng.
Comments From:	Alberta Direct Connect "ADC"			**Phone:**	780-920-9399
Date:	2020/11/20			**Email**:	colette@carmal.ca

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The November 5th session was valuable, and the ADC appreciated the AESO allowing for more preparation time. It may have been helpful to consolidate the energy storage presentations and spend more time on the DTS tariff discussions.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate.

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	Proposal 1 has been historically approved by the AUC as meeting cost causation objectives. While not perfect, it reflects that the overall bulk system needs to be able to flow electricity in the province such that the grid can reliably serve the system peak load from a number of generation sources. The Bulk/Regional cost allocation in this method has been supported by the London Economics Costs Causation study which all load parties signed off on by a negotiated settlement. Proposal 3 Minimum change proposal: This proposal is suggesting to move all bulk system charges to a non-coincident peak tariff, but keeping the remaining charges the same. As the Bulk system charge is the largest billing component this change is extremely disruptive for dual use customers and price responsive loads. It has the same deficiency as the AESO Bookend A in that NCP does not reflect how the AESO plans the system, or support efficient use of the system. Specifically: ▪ The NCP rate design proposal has not been supported by any cost causation study to evaluate its consistency with cost causation principles. ▪ An NCP rate design ignores demand diversity at the bulk transmission system level. ▪ An NCP rate design is inconsistent with transmission system planning principles which rely on designing a transmission system that can support CP demands. ▪ An NCP price signal is inefficient because it provides no price signal to reduce demand at the times of system stress, which generally correspond to system coincident peak demand periods. ▪ Transmission rate design in U.S. regional markets generally relies on CP methods for cost allocation and rate design. We are not aware of any precedent for the use of an NCP approach in other regional markets to allocate and to recover bulk transmission system costs ▪ Transitioning to an NCP rate design for bulk transmission would be inequitable because it would unfairly penalize price responsive loads who have made significant investments to effectively

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	respond to the CP price signal, which response has provided benefits to all customers on the Alberta system by deferring the need for incremental transmission investment. The proposal recommends cost mitigation for existing customers by providing a rate credit. This is problematic for the following reasons: ▪ Creates rate instability and will deter any new investment from these loads if it puts their rate mitigation at risk. ▪ Could potentially violate international trade agreements as mitigation could be argued a preferential rate treatment for certain industries. ▪ Concern that this type of mitigation would significantly increase the regulatory burden for certain customers as they would need to continually need to defend rate treatment. ADC is concerned that this group has done no modelling to understand what the impact on transmission build would be if the price responsive loads and the dual use customers all decided to use the grid at the time of system peak and also what the rate impact would be if the rate proposal led to large scale grid defections. Proposal 4 CCA Modification: This proposal is suggesting a similar approach to 3, but with the introduction of a declining block mechanism and a 5 year transition approach. This approach would require immediate relief of DTS notice period as this option would jeopardize many price responsive loads and Dual Use customers. It would eliminate any further investment from these industries and would jeopardize the existing revenue contribution that these companies make. Proposals for a transition to an NCP rate design are unreasonable if they are limited in duration, because such proposals only serve to defer rather than to avoid significant rate increases for price responsive customers. Proposal 7 Suncor: ADC has reservations about this proposal as it is too dependent on generator dispatch and location. The proposal would also create complexity and uncertainty surrounding the determination of marginal transmission costs and the determination of the coincident peak regional inflow billing determinant. Moreover, if the difference between marginal and embedded

Questions	Stakeholder Comments
	system transmission costs is significant, customers would be assessed a large residual customer charge that provides no effective price signal to influence customer usage patterns and that drowns out any CP price signal, simply to ensure full embedded cost recovery. The resulting fixed charge proposal spread equally among POD's would be harmful to many smaller loads. This proposal highlights the need for changes to the transmission regulation that would strengthen the locational signal for generation in order to minimize future transmission build. In general, the proposal introduces significant complexity and uncertainty to arrive at a bulk transmission rate design that will not yield meaningful efficiency improvements relative to the existing design.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	The ADC prefers the rate proposal presented by the ADC/DUC/IPCAA as the only workable proposal of the options considered so far. The other issues with the tariff proposals were described in point 3, but for completeness, the ADC also reiterates their concerns on the AESO Bookend A and B alternatives: 1. AESO Bookend A Fixed Charge: The AESO's bookend A assumes that the grid has been built to provide a level of service that is the same for all customers, regardless of the level of service received from the grid. If the AESO planners used this approach to planning, they would be adding the sum of all DTS contract capacity billing determinants estimated at 13,380 MW, or the highest non coincident metered demand of 10,016 MW to build out the system. This is not our understanding of AESO planning as was confirmed in the AESO response to ADC comments in the AESO Budget Review process.[1] 2. AESO Bookend B Regional Weekday CPD charge: The ADC has analyzed this option and the price signal doesn't work. When the ADC

[1] Of note, the AESO does not plan the transmission system based on contracted DTS levels but rather historical and forecasted loading and power flows.

Questions	Stakeholder Comments
	examined the North West Region, it discovered that 4 price responsive loads comprise 25% of the regional load. When these 4 customers are on the system, the region is peaking and the timing of that peak does not necessarily corelate with weekdays. Further the 120 CP daily peak is a weak signal that more resembles an energy charge rather than a capacity charge. A 120 CP approach would incorporate many hours into the price signal that have no meaningful impact on incremental transmission investment. This rate tends to enhance the benefit of developing on-site generation as that would be the only reliable way of avoiding the regional peak. A further problem with this method is that there is no visibility of regional peaks and it would not be simple to develop. A price signal that has no visibility is a poor signal.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	The ADC/IPCAA/DUC proposal is the only one that has been supported by prior AUC decisions. The rate structure does not address the issue of the Distribution Connected generator credits. This is a broader issue that is largely independent of the AESO tariff design. It is up to Distribution companies to defend continuing the credits or phase them out. The AUC has recently launched Proceeding 26090 to resolve this matter with a target completion date in April 2021.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All stakeholders are best served by the ADC/IPCAA/DUC proposal. The other proposals result in 100%+ increases to a small number of customers. In the case of the 9 ADC members, the cost shift is ~ $25M - $30M. These companies compete in global markets and are electricity intensive. They simply can't absorb this cost increase and will explore alternatives to grid supply. Further, Dual Use Customers will also respond to a NCP or firm billing capacity charge by exploring ways to disconnect from the grid. All Alberta ratepayers benefit from having these companies connect to the transmission system. A failure of even one single company due to a change in transmission tariff design is a failure of this process.

Questions	Stakeholder Comments
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	It is a false expectation that today's firm load customers will realize a 4% reduction in transmission costs. In fact, the other tariff proposals could result in a cost increase to small customers if the tariff further accelerates grid defections. There is no mitigation required for the ADC/IPCAA/DUC proposal.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	ADC makes no comment on the Energy storage proposals.
8. What are the challenges or unresolved questions with your preferred proposal?	There is the challenge that the tariff is leading to uneconomic generation development behind distribution POD's. This problem does need to be addressed, but drastic changes to the tariff that don't specifically address the problem will simply add unnecessary work and mitigation to arrive at the cost allocation we have today. Narrowly tailored solutions to address concerns with uneconomic bypass of the transmission system can be developed and are far preferable to a drastic overhaul of the transmission rate design that would create wide-ranging adverse impacts to remedy a problem that is relatively limited in scope.
9. Additional comments	There is no doubt that Alberta has built an expensive transmission system and today's ratepayers are unwilling to pay for a system they do not see the benefit of. This is an underlying problem that isn't resolved by socializing costs. The only way out is by encouraging use and growing load in the province. The rate options presented by other parties simply put at risk current businesses. The price responsive loads in the province are especially vulnerable. ADC urges the AESO to complete a thorough analysis of potential rate consequences before landing on any change. The AESO should be aware that by putting forth the bookends that suggest 100% tariff increases for heavy CP responders, it has halted any planned investment in Alberta from members. The AESO commissioned London Economics to complete a Cost Causation study in 2013. This study was supported through a negotiated settlement between all of

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	the load groups and became foundational for the 2014 tariff application. Since the time of the study, nothing has materially changed with the transmission system as the large build was already underway. The ADC questions why the AESO hasn't conducted another similar study to determine what has changed that warrants a shift away from a tariff design that has guided investment for more than the past decade. Any shift to a new transmission rate design must be supported by a thorough cost causation study that demonstrates that the new proposed rate design is consistent with cost causation principles. In the absence of such a cost a causation study, it would be inappropriate and unreasonable to depart from the existing CP rate design for bulk transmission costs, when the AUC has consistently determined that the CP rate design is consistent with cost causation in several prior decisions.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

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Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Hao Liu / Rob Senko
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Date:	[2020/11/20]			**Email**:	Hao.liu@altalink.ca rob.senko@altalink.ca

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1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session was valuable in that it provided an opportunity for interested stakeholders to present three new design proposals for the bulk and regional tariffs. The session was also valuable for the meeting participants to have a forum to ask clarifying questions and to provide their comments. As there were many references to transmission planning throughout the presentations and discussions, it would have been helpful if the AESO had made transmission planning resources available in order to build a shared understanding. For example, the AESO shared a System Planning Report with the Transmission Tariff Working Group in September, 2019. This report was the outcome of a couple of working sessions between the AESOs transmission planners and the working group. The AESO should share these conclusions and have transmission planners come to a stakeholder session, providing the AESO an

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	opportunity to clarify with stakeholders the relevance of coincident peaks in planning the bulk transmission system. The AESO has stated that 12 CP is no longer appropriate but has not provided supporting evidence. It would be beneficial to stakeholders to have the AESO provide evidence showing that only a small amount of transmission cost has been avoided due to customers' response to 12CP. The AESO's 2020 Long-Term Transmission Plan (2020 LTP) provides an overview of the multiple factors that are causing transmission investment, an important one being the interconnection of generation. It would help in the 12-CP debate if the AESO were to clarify the relative importance of generation, local load, and system coincident peaks in the context of the multiple drivers of transmission development projects contemplated in the 2020 LTP. In addition, it would be very useful if the AESO would provide the long-run incremental cost of load-driven bulk system investment and the associated time period. The parameter is required in developing an efficient tariff. The AESO alluded to the amount of load driven future transmission costs in their September 24, 2020 presentation (slide 25) – this estimation should be firmed up so that the forecast impact of load on the bulk transmission can be understood. It would be very useful for the AESO to share the Navigant report commissioned in July 2019. In the Nov. 15, 2019 TDAG presentation, the AESO said that Navigant would be working on two studies, one of them being a 'Jurisdictional review including functionalization, classification, allocation and opportunity services review.' (We note that the second study, 'Other industry pricing and tariffs review' was posted to the AESO website on March 9, 2020.)
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*a)* Bulk and regional tariff design There was useful discussion on the emphasis of 'cost responsibility' over 'price signals,' given our current transmission system. The AESO has highlighted the need to balance these two objectives – and has identified the minimal effect that load may have on future transmission investment. If price signals to load are of lesser importance, given the level of load driven future build provided in the AESO's current long term plan and the potential for the AESO to implement Non-Wires Alternatives to optimize transmission build using demand and generation

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	resources, the cost responsibility should therefore be of greater importance. This should be reflected in the evaluation of proposals. The CWSAA/UCA/AML/Conoco proposal suggests using customers' monthly NCP demands as a fair measure of cost responsibility. The CCA proposal also provides a fair means of reflecting cost responsibility through a customer charge. Although Suncor's proposal is focused on price signals based on long-run incremental costs, their proposal also includes a connection charge. Suncor's connection charge recovers those bulk and regional costs not recovered through demand charges. It is AltaLink's view that all three new proposals include certain design element to address cost responsibility. The AESO is in the best position to look at transmission planning practices and the value of grid connection to arrive at means by which costs might be allocated. The AESO is also in the best position to evaluate possible rate structures in light of the importance of minimal disruption. With respect to the AESOs second objective, 'efficient price signals,' presentation numbers 1 and 7 (Suncor) emphasized the importance of price signals. At present, there is insufficient evidence available to know what price signals to load will result in changes in future transmission build, if any, and over what time frame. Presentation 1 was not a new rate design, instead advocating for the 12CP status quo. In the Sept. 24, 2020 session, the AESO stated the current 12CP price signal will not lead to a reduction in system costs – it would assist in shared understanding if this evidence were presented. The efficiency consideration should include encouraging an efficient use of the existing grid. A load customer who decides to exit the grid due to the level of transmission costs would leave more costs to be recovered from remaining customers. Lowering their tariff to retain the load may still mean they are paying more than the long-run incremental cost and contributing to system costs to the benefit of customers. Similarly, a load attraction rate will help attract new load to use the grid and help reduce cost burden to other customers without causing new transmission build. The AESOs third objective, 'minimal disruption,' has not been meaningfully addressed. Until there is a shared understanding as to whether 12-CP-price signals result in avoided transmission costs, there will not be constructive

Questions	Stakeholder Comments
	discussion on rate shielding or mitigation and on any further rate design alternatives. It would useful for the AESO to assess the customer impact of each of the proposed rate designs. *b)* Energy storage tariff design AltaLink has no specific comments on energy storage tariff proposals at this time. AltaLink supports the AESOs rate design objectives of cost responsibility and efficient price signals for energy storage. AltaLink disagrees with Solas' interpretation of the EUA. The EUA states that all property of any kind involved in transmitting electricity from the high voltage terminal of the generation transformer to the low voltage terminal of the step-down transformer is a transmission facility. There are a number of Energy Storage applications where Energy Storage facilities perform this basic transmission function. AltaLink is confused by Solas classification of energy storage being a "substation" especially in light of their assertion it is not a transmission facility. In Alberta, Transmission Facility Owners (TFOs) own approximately 600 substations. All of these substations are considered under the EUA as transmission facilities.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	AltaLink supports the joint proposal made by CWSAA, UCA, AML and Conoco. Not only should the overall solution avoid negative consequences and avoid uneconomic bypass it should also be informed by 'cost responsibility' and 'minimal disruption.' The CWSAA/UCA/AML/Conoco proposal suggests using customers' gross NCP demands as fair measures of cost responsibility and a reflection of the benefits received by customers' varying use of the grid. Monthly un-ratcheted NCP demands provide fair price signals to encourage efficient use. AltaLink supports full shielding for existing users while moving away from the negative consequences of 12-CP. The proposal makes minimal changes to the current 2018 rate design. AltaLink also supports the rate structure and underlining principles presented by CCA. AltaLink supports a rate that recognizes that a grid connection has inherent value. The CCAs proposed fixed customer charge could be used to reflect this

Questions	Stakeholder Comments
	value. AltaLink encourage the AESO to quantify the value of being connected to the grid.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	The proposal meets all the AESOs rate design objectives. However, the shielding mechanism will likely require changes in the billing system.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All customers will benefit from rates that do not incent customers to respond to the 12-CP price signal and reduce load when there is no accompanying decrease in system costs.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	a) Before mitigation, customers with a proportionately lower coincident-peak demand than their monthly non-coincident peak demand – as compared to other customers - will be impacted. The AESO will have to do the analysis to determine who will be impacted. After mitigation, existing customers should be shielded from a rate impact. As such only new customers with a proportionately lower coincident-peak demand than their monthly non-coincident peak demand may be negatively impacted. b) AltaLink recommends a shielding mechanism. The shielding mechanism should ensure that the bulk system charge to customers would not increase for reasons other than the total bulk revenue requirement increasing. Load attraction rates might reduce costs for new users of the system who will not be shielded.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	a) and b) AltaLink has no specific comments on for energy storage tariff proposals at this time. AltaLink supports the AESOs rate design objectives of cost responsibility and efficient price signals for energy storage.
8. What are the challenges or unresolved questions with your preferred proposal?	The rate impact of the bulk tariff change will not be known until the AESO calculates the impact of the proposal's rates on the Rate DTS customers. An

Questions	Stakeholder Comments
	important component of the proposal is rate mitigation – the mechanics of rate mitigation is an unresolved question at this time. The value of being connected to the grid is a fundamental piece underpinning the cost responsibility. AltaLink encourages the AESO to continue its effort in assessing the value of being connected to the grid and to make its assessment available to stakeholders. AltaLink is looking forward to continuously engaging the AESO in this regard to share its perspectives and assessment.
9. Additional comments	Session 3 seemed to be sufficiently interactive and well attended. The AESOs objectives for Session 4 of: 'understand common themes and areas of agreement and disagreement,' may have been achieved during Session 3. The additional time required for this session does not appear necessary. Time would be well spent if the AESO could share its work on the extent to which 12-CP drives future transmission build and in estimating long-run incremental costs. A number of stakeholders mentioned that now is not the time to make changes to the ISO DTS rate design given the current Alberta economic state. AltaLink agrees with this sentiment. However, any rate change would not be implemented until 2023/2024, as stated by the AESO during the November 5, 2020 session. AltaLink recommends that the new tariff be filed by the AESO as soon as possible and allow the Commission to review through a rate proceeding. If the Alberta economy has not improved by the end of the hearing, stakeholders can then present their argument for why a new rate structure should not be implemented at that time.

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

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Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Tony Martino, Dan Thackeray
Comments From:	ATCO Electric			**Phone:**	780-420-5493 (Tony) 780-721-4284 (Dan)
Date:	2020/11/20			**Email**:	Tony.Martino@atco.com Dan.Thackeray@atco.com

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Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session held on Nov 5, 2020 was well organized and was very valuable in terms of allowing for all the parties to present their rate design proposals and to be tested on their assumptions and applications through the dialogue.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please refer to Table 1 for responses.

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	Please provide comments or an explanation of how you came to your conclusions as appropriate. The rationale behind the responses to Table 1 are mainly related to attempting to minimizing trade-offs and cross-subsidization amongst customers.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	While it is currently difficult to pinpoint a rate design that addresses all objectives, Proposals 3 & 4 that provide for an alternative billing determinant recovery to CP, such as NCP, appear to be a step towards minimizing cross-subsidization issues.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	The preferred Proposals 3 & 4 partly meet the rate design objectives, however; there are certain concerns respecting the use of unratcheted NCP. An alternative to this concept could be to further examine the concept of introducing ratcheted NCP to exercise more discipline on customers and on the system.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Customers that are not currently able to react to CP price signals (eg. residential, commercial, industrial distribution-connect customers) are best served (least impacted) by preferred Proposals 3 & 4.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Transmission direct-connect customers and Distribution-connect Generation (DCG) customers that are able to react to the current 12 CP price signal framework will be the stakeholders most impacted by preferred Proposals 3 & 4. The strategies outlined by Proposals 3 & 4 to either grandfather existing customers and/or to assess transitional credits appear to be examples of certain mitigation strategies to minimize impacts to Transmission connect and DCG customers.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	As ATCO has stated in Proceeding 24116, energy storage is "…a 'tool in the toolbox' for utility planning groups to consider when solving problems facing the grid." (Exhibit 24116, X0511, pdf page 5) Further, "ATCO believes commercially owned energy storage resources should be approached with caution, and should strive to minimize those customers who are only seeking wire tariff avoidance. TFOs should be able to deploy energy storage as a non-wires alternative when solving problems that are facing the grid." (Exhibit 24116, X0511, pdf page 8)

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	As such, treatment of these types of facilities within the tariff need to be broached with caution and examined thoroughly to avoid unintended consequences associated with policy change. The AESO should consider a thorough review of the application of Energy Storage in isolation of this rate design consultation in order to assess all implications impacting energy storage connections (which would include an assessment of rate design for these types of customers).
8. What are the challenges or unresolved questions with your preferred proposal?	While the concepts of grandfathering existing customers (Proposal 3) and/or assessing transitional credits (Proposal 4) appear to alternative mitigation strategies, these concepts appear to be steps that move the rate design from a Postage Stamp principle and, in addition, would pose administrative burden concerns for Distribution Facility Owners
9. Additional comments	ATCO Electric has not provided comments or rated the energy storage proposals directly, rather it has provided comments on bulk system rate design proposals as it believes this forms the primary initial focus of these consultations.

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Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Rick Cowburn
Comments From:	Canada West Ski Areas Association (CWSAA)	**Phone:**	(403) 397-8785
Date:	2020-11-20	**Email**:	rcowburn@vidya.ca

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	It was valuable to see the range of proposals supported by the industry. However it is becoming abundantly clear that after three years the industry is no closer to a consensus than it was at the outset, which is understandable given parties' very different perspectives and objectives. During our many discussions, the AESO has provided helpful background information, most particularly with respect to the planning process and the drivers of system expansion. Since the AESO is the authoritative and impartial source of transmission system information, it would be most helpful if the AESO could assemble and distribute the most salient documents and invite transmission planners to future sessions, in order to provide a common factual foundation for all participants to use. This would be particularly helpful in addressing two of the central areas of dispute: load-facing price signals and 12CP impacts, both of which are closely linked to system planning and expansion.

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Questions	Stakeholder Comments
	The 2020 Long-Term Transmission Plan indicates that generation, not load, will be a primary driver of bulk transmission expansion; to the extent that this is the case, seeking to 'fine tune' load-facing price signals would be a vacuous academic exercise. The 12CP structure appears to incent load responses that just shift costs without providing any overall cost savings on the already oversized bulk system. If 12CP peak avoidance has actually led to specific and identifiable capacity deferrals, we would all like to know where and when, and the planners are the only professionals in a position to advise. It appears that the trenches have already been dug for these battles, and the Commission would be well served by objective, factual information provided by the AESO. The earlier this information is placed before the industry, the more opportunities there will be to test and debate it outside of the litigated process, which given the Commission's drive to efficiency would be most appropriate.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	**Cost Responsibility:** All transmission customers should make a fair contribution to system costs, which were largely created by public policy decisions rather than by technical need analysis. The current ratcheted regional charge serves this purpose, and appears to be roughly consistent with the value of core grid services such as backup, startup and voltage stabilization. The current unratcheted bulk charge provides reasonable flexibility for use beyond this base level. **Efficient Price Signals:** Transmission facility expansion is always local in nature. It is not established that any province-wide bulk or regional load-facing price signal would have a material impact on future transmission build. Generation-facing price signals would be far more effective, but they are precluded by existing legislation **Minimal Disruption, Simplicity:** Given Alberta's difficult economic state, these are high priorities. While several proposals contain interesting concepts, it is not clear that they would bring benefits worthy of their disruption and complexity. **Innovation & Flexibility:** It is suggested that optionality be provided outside of the tariff. Transmission is a local phenomenon, while Alberta's transmission tariff is by law locally undifferentiated. Targeted local programs are a better fit.

Questions	Stakeholder Comments
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	CWSAA, UCA, AML and Conoco all support the current tariff structure, only changing the bulk system charge from a single hourly peak basis to an unratcheted POD-specific NCP charge, with shielding for PODs making use of the 12CP cost avoidance option. Except for 12CP treatment, this appears to mirror the proposal of ADC, DUC and IPCAA.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes, it appears that the CWSAA, UCA, AML, Conoco proposal meets all rate design objectives. The 'grandparenting' of current 12CP users is a policy consistent with the AUC's approved treatment of DCG (22942-D02-2019 p.176 ff).
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	It is expected that impacts from the preferred proposal would not be large, but further analysis is required. As grandparenting bill credits are removed, PODs at which there is significant 12CP responsive load could face price increases.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	The ability of future customers to entirely avoid bulk transmission costs through one hour of 12CP response would be removed. Impacts on current 12CP responders would be shielded for some period of time.
7. a) How would energy storage resources be treated in your preferred proposal?	At this time, CWSAA has no comments on storage matters.
8. What are the challenges or unresolved questions with your preferred proposal?	Numeric analysis of potential impacts and shielding is required. The data needed for this analysis is not extensive or complex.
9. Additional comments	It is strongly recommended that the AESO proceed expeditiously with its tariff filing. The AUC has stated: "Our objective is to have the fastest turnaround times in North America" [https://www.auc.ab.ca/News/2020/2020-10-22-Letter.pdf], hence it is likely that the tariff will be implemented while Alberta is still economically challenged by low oil prices, market access and COVID. Avoidance of non-essential disruption should be given considerable weight in tariff design.

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

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Evan Wilson
Comments From:	Canadian Renewable Energy Association	**Phone:**	
Date:	2020/11/20	**Email**:	ewilson@renewablesassociation.ca

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session was valuable, as it provided the opportunity to better understand other market participants' perspectives on the rate design options. We request that the AESO provide a formal response to the presentations during the December 10 Bulk and Regional Tariff session.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	

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Questions	Stakeholder Comments
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	The AESO has acknowledged in multiple stakeholder engagement forums that storage is a unique technology type, sharing characteristics of both generation and load. We have argued that energy storage also shares characteristics with transmission and distribution infrastructure, specifically with substations, as defined under the Energy Utilities Act. Much like a substation, an energy storage unit does not do “work”, and acts as a conduit for the movement of electrons. The current tariff treatment options that have been proposed by the AESO are limited to those which attempt to tailor the treatment of storage using generation and loads as a basis. These options did not provide any considerations for storage’s “wire-like” properties, and, thus, did not provide a full perspective on possible treatments. Modelling provided by Solas Energy Consulting has demonstrated that each of the tariff treatments proposed on September 24 do little to improve the economic challenges presented by the status quo. Treatment as a substation would suggest that a storage facility would not be levied any STS or DTS under the tariff. Instead, CanREA proposes that an administrative fee, modeled on the Rider J - Wind Forecasting Service Cost Recovery Rider, would be an equitable means of recovering the cost of safely and effectively integrating energy storage within the AIES. We recommend that the

Questions	Stakeholder Comments
	AESO consider and present options for potential administrative fees for storage at the December 3 meeting.
8. What are the challenges or unresolved questions with your preferred proposal?	
9. Additional comments	

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

– Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Matthew Davis
Comments From:	Capital Power			**Phone:**	403.540.6087
Date:	2010/11/20			**Email**:	mdavis@capitalpower.com

Instructions

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The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Capital Power appreciates the opportunity to provide comments on the November 5, 2020 stakeholder session and provides the following comments for consideration. While the session was a suitable forum for stakeholders to present alternative rate design options, it is not clear how this will help inform the AESO's preferred rate design. At this time, and with the limited information provided for each option, it is premature to expect stakeholders to opine on which proposed rate design proposal is preferred. Capital Power respectfully suggests, as detailed in our subsequent responses, that there are outstanding issues such as mitigation measures that need to be addressed before the rate design options can be fully assessed.

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Questions	Stakeholder Comments
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	From the presentations on Nov. 5th, there are two clear delineations of submissions. First, there were four submissions related to bulk and regional tariff design, and secondly there were three focused on energy storage treatment. Capital Power has not filled out Table 1 as the energy storage proposals do not clearly fit within the context of the table and the bulk and regional tariff proposals all continue to warrant further investigation through this process prior to committing to a firm preference of one methodology over another. Capital Power reiterates its previous comments that combining energy storage with bulk and regional rate design limits the opportunity to fully discuss and explore the issues relating to storage. Through this consultation, the ISO tariff should remain technology neutral and should not have a distinct rate applied to energy storage. Rather, the tariff treatment for energy storage should be disaggregated and aligned with the technology-neutral rates applied to all other assets. On the broader matter of bulk and regional tariff design. The proposals all proposed differing approaches to both performance measurements such as coincident peak (either at time of system peak, or regional peak) and capacity measurements (contract capacity, non-coincident peak). Along with AESO's bookend B (original and modified), the status quo (supported by IPCAA/ADC/DUC) and Suncor's proposal both include a performance-based billing determinant that aligns with efficiency objectives. These approaches allow customers to have optionality and provides an avenue to flexibility in responding to tariff signals. The other proposals are more weighted towards capacity measures that are less supportive of allowing flexibility for existing and future customers. The CWSAA/UCA/AML/Conoco addresses some of the above issue with generation of credits to existing consumers that have responded to 12CP. The AESO also identified an interruptible rate options as a mitigant this with their modification to their Bookend A approach in the technical session. Capital Power highlights that mitigation is critical, but yet to be fully discussed. Overall, generating mitigation strategies has the potential to alleviate the impact of changes to the tariff not just on existing consumers but also future consumers. Capital Power is not supportive of a mitigating credit based on past performance, instead any mitigating tariff should align with services given / taken from grid.

Questions	Stakeholder Comments
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	As with our comments to the AESO's bookends A and B, Capital Power submits that the proposed rate design alternatives are informative but further exploration including mitigation options are necessary before indicating any preference. A combination of a performance-based measure and a demand / contract capacity measure form the critical elements of redeveloping the tariff. While supportive of moving away from the status-quo, Capital Power has not seen enough evidence/analysis to determine if one of the proposed formulations that involves these two measurements is better than the other. Capital Power believes that a fulsome discussion cannot occur without discussing mitigating factors. As such, Capital Power believes that the next session will be valuable in a more fulsome evaluation between the interdependencies of any bulk and regional tariff reforms, and ensuring that changes that encourage loads to remain on the system and avoid defection or islanding from the Alberta Interconnected Electric System (AIES). In developing a performance determinant, and any future mitigation option, the AESO needs to consider Ramsay pricing principles as this is critical to decreasing the likelihood of load defection and is aligned with efficient price signals. From past performance, some loads on the grid accept less firm service, as such the AESO should consider this as they proceed through this process. Addressing how willing consumers (including energy storage when charging) are to pay for system access (i.e. firm vs. interruptible service) is essential for ensuring fair treatment.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	See response to question 3, without understanding thoughts on mitigation strategies (should they exist) it is difficult to ascertain whether or not a proposal completely meets the design objectives the AESO has put forward.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Please see response to question 3.

Questions	Stakeholder Comments
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Please see response to question 3. In general, most of the proposed changes to the design would negatively impact customers that currently respond to the 12CP signal. By being so responsive to the current 12CP signal, many loads have illustrated that they have differentiated service level expectations from the standard firm level of service. As such, Capital Power believes that there is a requirement to examine alternatives that provide differentiated services to loads that align their usage of the system with an appropriate cost obligation. Capital Power suggests that in-part, this type of thinking may align with the AESO's plans to discuss mitigating options in Session 4.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	A differentiated service would allow for energy storage, while charging, to be treated no different than any other consumer that elects to have the same service level.
8. What are the challenges or unresolved questions with your preferred proposal?	Determining the performance measurement period(s) is critical. Any rate design should include performance-based measures to encourage innovation and flexibility.
9. Additional comments	

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

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Grant Pellegrin
Comments From:	Cenovus Energy Inc			**Phone:**	403-766-3955
Date:	2020/11/20			**Email**:	Grant.pellegrin@cenovus.com

Instructions

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Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Overall the session was well run
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	See table 1
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	Cenovus prefers proposal 1, cost causation must be the foundation for rate design, CP has been proven to best allocate cost based on cost causation. The Transmission Regulation and Distribution inquiry should be completed first and the Tariff design should only be changed to reflect updates to the Transmission Regulation, if required.

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Questions	Stakeholder Comments
	The industry has extensively developed Cogeneration on site alleviating the need for transmission to be built to serve these customers, if this investment had not been made the transmission requirements in the province would likely be significantly higher. Option 1 accurately recognizes the cost avoidance this investment in cogen has brought to all ratepayers in the province.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes. Please see table below.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Best served/most or least impacted should not be the focus of the tariff. Tariff designs is not a popularity contest. All customers are impacted by the high transmission costs experienced in Alberta and all customers benefit from a tariff that accurately allocates cost, provides price signals to customers to avoid using power during peak/scarcity events and encourages on site investment that avoids the need for transmission build lowering cost for all consumers.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	See Answer 5
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	Energy storage is not specifically addressed in option 1, energy storage should be treated in a FEOC matter.
8. What are the challenges or unresolved questions with your preferred proposal?	There are minimal challenges with Option 1. This rate design has been approved previously on several occasions by the AUC. The 12 CP price signal is strong and effective.

Questions	Stakeholder Comments
9. Additional comments	

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
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Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

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November 20, 2020

Spencer Hall
Alberta Electric System Operator
2500, 330 - 5th Ave SW
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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 November 5th session. Following that session, the AESO requested parties to respond to nine questions. The cities' response is provided below.

Question 1:

Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?

The cities consider the AESO's November 5th session to be useful for understanding the positions of various stakeholders.

Question 2:

Please complete Table 1: How Did Each Proposal Achieve the Rate Design Objectives for each of the proposals presented at Session 3.

How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid			N/A			N/A	N/A	
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build			N/A			N/A	N/A	
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted		N/A	N/A	Possible	Possible	N/A	N/A	N/A
Simplicity	Simplicity and clear price signals while achieving design objectives		N/A	N/A	Possible	Possible	N/A	N/A	N/A
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers		N/A	N/A	Possible	Possible	N/A	N/A	N/A

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Discussion of Proposals 1 and 7

The cities note that proposals 1 and 7 do not provide any usable price signal to most Alberta electricity consumers. These proposals (proposal 1 is simply the status quo and current coincident peak charge) are premised on two conditions that are rarely met: (1) an end-use customer must correctly predict the hour in which the price signal applies, and (2) the wires tariff paid by the end-use customer must pass through this price signal. The AESO indicated in its September 24th presentation that very few end-use customers, all transmission-connected, have shown any response to the current price signal. As the cities have already noted in correspondence from April 9th, most end-use customers (ninety percent by AESO DTS revenue) do not have the opportunity to respond to the price signal. This is because distribution-connected end-use customers pay a distribution tariff that is calculated before the AESO' price signal is known or disclosed. This is aside from the issue of whether it is even an appropriate signal, which is another matter that will be addressed below.

Therefore, proposals 1 and 7 do not meet a minimum requirement to address, let alone satisfy the "efficient price signal" objective or the "cost responsibility" objective, simply because all but a handful of end-use consumers do not receive any coherent price signal. Even for the small minority of end-use customers that do anticipate the hour to which the price signal is applied, prior committee work already concluded that transmission infrastructure costs are not driven by a single hour (for example, see the AESO's "System Planning Report" to the Transmission Tariff Work Group, dated September 10, 2019). Narrowly directing cost recovery toward usage during a single hour on the system does not encourage either conservation or more efficient utilization of transmission infrastructure.

The cities also do not agree with the implicit policy position of Proposal 1 when it establishes a hierarchy of customers that should be protected from the rising cost of Alberta's transmission network, giving highest priority to industry as long as it is transmission-connected. Being that the network is intended to benefit all customers, businesses and industries served at a distribution voltage should also be considered, as well as residential customers.

Relatedly, Proposal 7 may have material and unintended consequences for end-use customers. The cities understand that the proposal is based on marginal cost pricing with the remainder of embedded cost to be recovered on a per-customer basis. However, the marginal cost to provide peak hour capacity, even the long run marginal cost, is virtually zero. This is because the capacity requirement in the next-highest peak hour is virtually the same. This also means that additional transmission cost will be recovered on a per-substation basis and likely to have the unintended consequence of shifting the cost burden from urban to rural end-use customers. There are relatively fewer end-use customers at a rural substation because of a lower population density, which means fewer end-use customers (particularly rural residences, farms, and small commercial customers) will then pay a higher share of transmission cost. The cities consider this contrary to the policy of postage stamp ratemaking, albeit indirectly and not necessarily by intention of the proponent.

Discussion of Proposals 2, 5, and 6

The cities are unable to evaluate proposals 2, 5, and 6 because they are incomplete. These presentations appear to be premised on the notion that energy storage only makes the transmission system more efficient. The rationale for favourable pricing hinges on this critical assumption, but the assumption itself is not supported. In a completely different industry framework outside Alberta, this question might be easier to answer. In Alberta, however, energy storage might be operated by a party with a commercial business plan to take advantage of energy price arbitrage opportunities. In this scenario, and without an effective price signal, energy storage

is not internalizing its potential impact on the transmission system. Charging when the energy market price is low and discharging when the energy market price is high will not necessarily and, in all instances, correspond with making the transmission system more efficient. On the contrary, the cities suspect that energy market price does not always positively correlate with transmission system optimization; otherwise, the AESO would not need to procure ancillary services, for example. If this were the case, generators operating purely on energy market signals would already be acting to optimize transmission system.

The cities consider that this issue must ultimately be resolved with independent analysis from the AESO. From the stakeholder consultation to date, the cities are unsure if the AESO has resolved 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. At this stage, it remains unclear whether there exists a simple and concise set of conditions under which energy storage benefits the transmission system and whether this can be converted to a feasible price signal. If the AESO believes that energy storage will benefit the transmission system, but the set of conditions are much more complex than a one-size-fits-all tariff can contemplate, then a different policy discussion should occur.

Discussion of Proposals 3 and 4

Proposals 3 and 4 are more feasible in concept and both would facilitate efficient utilization of transmission infrastructure. A demand charge based on a customer's own peak generally promotes better utilization and lower peaks. A customer who makes a concerted effort to improve its load factor should be rewarded with a lower bill, as these proposals would do. Most importantly, the demand charge begins to address the cities' concern (confirmed by committee work) that usage during a wide range of hours is what ultimately drives transmission cost. Avoiding consumption during the peak transmission hour has no effect on long term transmission costs because the next-highest hour is virtually the same. Indeed, from the two-year span of data provided by the AESO in October, one can see that the system's second highest peak of the month is still 99.6% as large as the highest peak. This is the same for each of the six regions, with the second highest peak no less than 99.4% of the highest peak. Moreover, the *fortieth* highest peak hour each month is still 97% as large and the *eightieth* highest peak hour is still 95% as large as the peak hour.

Of course, some off-peak hours are not as important and the cities expect that if a substation were to peak at 2 am, this would not have the same effect on transmission system design and cost as would peaking at 6 pm. Therefore, one

possible refinement to Proposals 3 and 4 is to calculate the billing determinant as the customer's peak demand during an on-peak period, such as (for the sake of an example) 3pm to midnight.

Ideally, it would be fairer to ratchet the demand billing determinant, which would mean a lower price per-unit, but also appropriately treat two otherwise identical customers the same when one peaks intermittently and the other peaks every period. However, we recognize that an un-ratcheted billing determinant might be more appropriate to mitigate rate impacts and therefore more appropriate for an interim solution.

Proposals 3 and 4 also have the capability of meeting the AESO's additional criteria of "Minimal Disruption" and "Simplicity." However, this all depends on the specific billing determinants, price associated with those billing determinants, and how the rate would be implemented (e.g. such as an interim phase-in period). The necessary first step is that the AESO must be willing to forecast system-total billing determinants for each scenario discussed so that one can calculate a price. Without a price, it is impossible to calculate a complete tariff schedule and meaningfully discuss rate impacts. Moreover, the analysis would also need to take into account that price responsive loads can also be responsive to a different price signal; thus rate impacts will be very much overstated if they do not also assume a change in behaviour.

The cities do note that Proposals 3 and 4 included some preliminary discussion of rate mitigation. The cities do not wish to rule out all options, but they are skeptical of a mitigation scheme that refunds back some amount based on previous bills. This would be a disincentive to adopt new behaviour, particularly when the issue here is that the customers most affected are already considered a price-responsive load. The objective needs to be about encouraging new behaviour and so the only practical mitigation measure may be to include a phase-in period for the new price. There can be many ways to implement this, but the general concept is to gradually reduce revenue collected on the old structure while gradually increase revenue collected on the new structure.

Finally, Proposals 3 and 4 have the potential to satisfy the AESO's remaining "Innovation and Flexibility" objective. The cities note that the AESO defines this as "optionality for transmission customers to innovate," which will be an elusive concept that means different things to different market participants. For industry and business, for whom electricity supply is an input cost, the consideration would probably be like any other input cost: stability and predictability will facilitate long term planning and allow the commercial venture to focus on its own primary functions.

It is possible for the AESO tariff to provide stability, but only if the tariff structure is sustainable. A tariff that creates an opportunity to avoid tariff charges without proportionally reducing transmission cost is not sustainable. The only way to credibly offer a sustainable price structure is to ensure the tariff reflects cost and encourages efficient use. When neither of these conditions are satisfied, eventually the tariff must change. The longer this is delayed, the larger the correction.

Question 3:

Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?

Consistent with the reasons discussed above, the cities consider all options that rely on usage during a system or regional peak (which is only known after-the-fact) to be impractical. This is because customers representing ninety percent of the revenue collected do not have the ability or opportunity to respond to such a price signal even if they were able to successfully anticipate the correct hour.

Between the two options, therefore, the cities prefer "Bookend A" because it is the only one with potential to satisfy all the AESO's criteria.

Question 4:

Does your preferred proposal meet all the rate design objectives?

If not, what trade-offs does your preferred proposal create between the rate design objectives?

Why are those trade-offs appropriate?

In response to questions 2 and 3 above, the cities have provided reasons for why at least three proposals have the *potential* to meet the AESO's rate design objectives. However, all three proposals are conceptual in nature and are not complete. The cities do expect there will need to be trade-offs, particularly between minimizing disruption and offering an efficient, simple structure on day-one. This will require additional analysis once the AESO is able to provide specific prices based on the selected billing determinants.

Questions 5 and 6:

Which stakeholders are best served (or least impacted) by your preferred proposal? Why?

a) Which stakeholders are most impacted by your preferred proposal? Why?

b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?

At this stage, it cannot be known who is "best served" or "least impacted" because none of the proposals, except perhaps proposal 1 (status quo), are fully developed and have a price. The choice of billing determinants and how they are calculated will matter. For instance, when billing determinants are 20 percent higher for every customer, it just means that the price per unit must be 20 percent lower to raise the same amount of revenue.

Moreover, a load that is particularly adept at responding to the current price signal is not necessarily going to be worse off with a different tariff. If the new price signal is known in advance, for example, this would afford even more opportunity for a load that is used to making last-minute decisions based on predicting the system's peak hour for the month. With a more stable and predictable input cost, one would be able to direct these acquired skills toward long run planning. This will open new opportunities to optimize shift or process scheduling, develop longer term business plans, and even make capital investments to shape load further. There is a fixed amount of transmission revenue to collect, so one only needs to be more responsive than the average customer to be comparatively unaffected or even better off with a new price structure.

The cities strongly suggest that the AESO first decide upon (at least as a straw-dog proposal) the correct answer for a sustainable and appropriate tariff on principles alone. From there, the AESO can calculate the associated billing determinants and price per-unit, which facilitate a complete discussion of who is impacted and whether mitigation measures should be applied.

Question 7:

a) How would energy storage resources be treated in your preferred proposal?

b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?

The cities are unable to provide comment on this matter, pending clarification from the AESO as to whether storage is a unique and useful means to optimize the transmission system, and if so, how optimization is best achieved. Depending upon the AESO's technical needs and the technical qualities storage can offer, it may be that this issue should be addressed outside the tariff structure.

Question 8:

What are the challenges or unresolved questions with your preferred proposal?

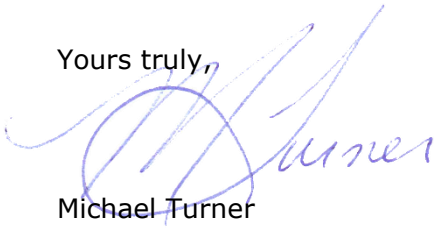
A common theme in response to the questions above is the challenge of providing detailed comment on proposals that are not complete and do not yet have a calculated per-unit price. Without this information, it is difficult to evaluate how price-responsive load would react or make any conclusions as to whether mitigation is even required. It is also difficult to fully evaluate the potential for additional end-use customers to become price responsive, should they have a new opportunity to respond to a price.

Question 9:

Additional comments

The cities undertook to provide fulsome responses to the above questions and have no additional comments. We trust that these comments will be received in the constructive spirit that they are intended. 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
Stew Purkis, City of Lethbridge

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Blair Wood
Comments From:	Conoco Phillips Canada			**Phone:**	403 532 3575
Date:	2020/11/20			**Email**:	Blair.wood@conocophillips.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	This session was an excellent opportunity for participants to provide alternatives for the tariff design of the bulk and regional system. Unlike previous sessions, several participants took the opportunity to provide alternatives and debate pros and cons. An area that is missing is having the AESO present its reasoning and evidence for moving away from the current 12 CP methodology. This would provide participants with a shared understanding of the information and context of the session. In order to gain this insight it would be useful to invite AESO planning team members to future sessions to provide information on factors that inform the planning process. It would also be helpful for the AESO to share its assessment on the risk of customers installing generation to mitigate transmission costs and the likelihood of this outcome if the rate design is not altered. It is clear to Conoco that building a consensus on one particular preferred alternative is unlikely. Some parties have grouped together according to their shared interests, but it appears likely that the AESO will not find full consensus on

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Questions	Stakeholder Comments
	their final proposed change to bulk and regional rates. It therefore makes sense to have the AESO choose and file its preferred approach with the AUC as soon as possible.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	Conoco prefers the CWSAA, UCA, AML, Conoco proposal, which utilizes a monthly unratcheted NCP for the bulk charge, combined with a proposed grandfathering plan. The current bulk system has been characterized as overbuilt and therefore significant future development of the bulk system is unlikely. Therefore a strong price signal provided by the 12 CP method is not useful, other than to the Market Participants that respond in order to reduce their monthly tariff charge. Consequently, a customer that responds to the CP signal is simply transferring costs to other customers, creating a cross-subsidization concern. Conoco is concerned that this cost transfer is occurring at an accelerating pace as more DG and site generation connect.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	It is the view of Conoco that the CWSAA, UCA, AML, Conoco proposal meets all rate design objectives. There may be a tradeoff in this proposal in balancing a price signal with having a tariff that does not encourage cross subsidization. If the transmission bulk system is considered to be fully built out, the need for an efficient price signal for loads is muted. A key consideration must be creating a rate design that does not encourage inefficient action, such as installing generation with a primary purpose of avoiding tariff charges.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	With a unratcheted NCP bulk charge, firm load customers will have slightly lower transmission costs than the current design and a reduced risk of a death spiral which may be caused by customers installing generation simply to avoid the bulk charge. It is likely that most Cogen customers will not be significantly impacted by an unratcheted NCP design since most of these customers use the bulk system for their loads as a back-up supply. Therefore these Cogen sites will experience little change in moving to NCP from the current rate design. Maintaining a positive environment for Cogen should be a key consideration in the rate design since Cogen is the most efficient form of gas generation and the current

Questions	Stakeholder Comments
	regulatory framework has been highly successful in attracting new Cogen facilities. In the event that some Cogen sites are impacted by the proposed NCP design, the Grandfathering proposal will mitigate these rate impacts at least in the short to medium term.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Price responsive and CP responsive customers will be substantially affected by a change to NCP. These customers rely upon responding to a limited number of hours to reduce their monthly transmission charge. The NCP method will not allow them to escape bulk charges through a limited response. However, these customers may have a future opportunity to provide non-wires solutions in areas of the Province that need regional transmission infrastructure. In addition, the proposed grandfathering option will mitigate any rate impacts to the existing price and CP responsive customer group, at least in the short to medium term.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	Conoco's current joint proposal with other parties does not comment on how energy storage resources should be treated. After review of comments in the recent session on storage, Conoco agrees, in principle, that storage should receive a separate rate that recognizes its distinct value to the system and therefore incentivizes it to be built, particularly in its ability to defer regional system construction. However, storage should not, as some participants have proposed, not pay a contribution to load tariff charges. Conoco recommends that the AESO create an interruptible opportunity rate that is similar to DOS or Export service. This will allow for the development of storage and benefit all customers.
8. What are the challenges or unresolved questions with your preferred proposal?	The grandfathering proposal needs definition. The AESO is the correct party to assess grandfathering options through a thorough analysis of rate impacts. Conoco encourages the AESO to propose grandfathering options that could be commented on by stakeholders.
9. Additional comments	The AESO should continue with its current timeline and file a proposed design by March 31, 2021 without further delay. The bulk and regional rates cover 70% of the AESO tariff and delays to filing this design create substantial regulatory risk to current and potential future market participants. In order to minimize this red tape and regulatory burden and uncertainty the AESO should move expeditiously with its filing.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Raj Retnanandan
Comments From:	Consumers Coalition of Alberta			**Phone:**	Contact Phone Number
Date:	[2020/11/20]			**Email**:	

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The AESO set out some ideas for further discussion. This was helpful

2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	CCA has not completed Table 1. However, in CCA's view rates should be designed having regard to the following priorities, based on well established rate design principles pursuant to the AESO's public interest mandate.
	• Design tariffs in the context of an evolving electricity system:
	  ○ Increasing share of distributed generation including intermittent renewables
	  ○ Increased potential for creation of microgrids as an economic bypass option

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Questions	Stakeholder Comments
	○ Capturing the integrating value of digital technology for two way flows • Grid connection has value due to serving as conduit for energy exchanges and digital coordination; a fixed customer charge (for DTS) may be warranted in order to capture this value • Encourage efficient use of the system based on planning of the system and long run marginal costs • Eliminate price signals that may promote cost avoidance rather than future cost reduction • Mitigate rate shock arising from restructuring by means of a transitional credit
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	All presentations have merit depending on their perspective. Different perspectives would result in different objectives for rate design. However, it is the responsibility of the AESO to decide on a perspective for design of bulk and regional tariffs that reflects a long term vision for an evolving electricity system as described in 4.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	**In CCA's views the rate design objectives must reflect today's priorities for an evolving system. These include the following:** **Reflect Cost Causation in the design of demand charges** • Consider long run incremental costs (proxy for marginal cost) in designing demand charges **Recognize there is a limited role for load signals based on a system peak. Incremental investment is driven primarily by generation; constraints are location dependent and will vary over time.** • Use of un-ratcheted monthly NCP to replace current CP • Eliminate distinction between bulk and regional costs **Ensure Cost recovery**

Questions	Stakeholder Comments
	• All bulk and regional costs not recovered by way of demand charges to be recovered by way of a declining block customer charge based on billing capacity **Rate Mitigation** • Rate mitigation specifically to mitigate rate shock from restructuring, should be considered • Rate mitigation in view of poor economy (owing to pandemic or low oil prices) is the responsibility of Govt., not rate making • Undue subsidies in the form of load retention rates to industry in transition may result in distorted economic price signals • Apply a transitional credit against fixed customer charges such that future customer bills corresponding to a historical base level billing capacity and costs ($/MW of billing capacity) would be capped at no more than 10% of the customer's previous average (3 yr. av. as base) bulk and regional costs, in year 1 • The transitional credit would ensure load customers seeing increases due to restructuring are shielded from rate shock-the amount of shielding would go down to 80% in year 2, 60% year 3, 40% year 4, 20% year 5 and 0 year 6 • Transitional credit to be calculated on the difference in total bill for a given billing capacity in $/MW and a credit rider applied to the customer charge at each POD on a per MW of billing capacity basis **Facilitate load additions and Minimize Load Defections** • Declining block design for customer charge to incent additions to billing capacity at the margin • Transitional credit on $/MW of billing capacity against customer charge to shield existing customers from rate shock **Enhance Flexibility**

Questions	Stakeholder Comments
	• An un-ratcheted monthly NCP demand charge based on LRIC maximizes flexibility of use
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Which stakeholders are least impacted ought to be a consideration only in relation to mitigating rate impacts arising from rate restructuring. Otherwise, rates should be designed on the basis of economic efficiency and other relevant rate design criteria.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Which stakeholders are most impacted ought to be a consideration only in relation to mitigating rate impacts arising from rate restructuring. Otherwise, rates should be designed on the basis of economic efficiency and other relevant rate design criteria. Please see 4 above for rate mitigation.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	The storage tariffs issue is best addressed in a separate forum. However, at a high level, storage should have access to interruptible rates during charging. Storage, to the extent used as a non-wires alternative, should not be subject to the DTS or STS tariffs but rather be governed by the applicable contractual arrangements with the AESO.
8. What are the challenges or unresolved questions with your preferred proposal?	It is likely that there would be no industry consensus as to the future AESO transmission tariff structure through the stakeholder consultation process referred to by the AESO. Under these circumstances it is the responsibility of the AESO to design tariffs based on well established rate design principles pursuant to its public interest mandate. It would be appropriate therefore for the AESO to file its Phase 1 Tariff proposal as soon as reasonably possible and no later than the current date of March 31, 2021, and allow the Commission to hold a process to deal with this issue.
9. Additional comments	It is clear that the current bulk system charges based upon coincident peak billing determinant needs to be reviewed and likely changed in light of an evolving electric system with increasing use of on-site generation. It is also clear that continuing with the current rate design will lead to more customers choosing to

Questions	Stakeholder Comments
	self-supply or to react to the coincident peak signal, thereby increasing transmission charges to the remaining customers. The number of recent applications for industrial systems designation as well as the duplication avoidance tariff application by the University of Calgary (Proceeding 25826) underscore the need to provide appropriate price signals to avoid uneconomic bypass of the system. Further, in these times of industry transition and diversification in Alberta it is important that rate design for the bulk and regional transmission system reflect appropriate price signals so that new industry will choose to locate in Alberta.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Christine Runge (Power Advisory)
Comments From:	DCG Consortium The DCG Consortium is comprised of the following members: BluEarth Renewables Inc, Canadian Solar Solutions Inc., Elemental Energy Renewables Inc, Irricana Power Generation, RWE Renewables Canada Holding Inc. and Siemens Energy Canada Limited. This submission represents the consensus view of the group and is submitted on behalf of the group by Power Advisory LLC.	**Phone:**	403-613-7624
		Email:	crunge@poweradvisoryllc.com
Date:	2020-11-20		

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session was valuable but could have been better organized by topic. There were three presentations on storage and four on bulk and regional rates, and instead of being grouped by topic, the presentations rotated back and forth all day. It would have been more helpful and efficient if the presentations had been delivered in a more logical order.

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2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	The ratings in the below table each have footnotes that relate to the numbers in this section. 1 – The DCG Consortium has added an additional row to the table related to the timing of the redesign. The DCG Consortium strongly agrees with Proposal 1 that this is not the appropriate time to engage in a major tariff redesign. To foster investor certainty, when and if any change is made to the bulk and regional rates, the new rate structure should be maintained in that form for 10+ years prior to being revisited again. This is extremely unlikely to be the case if the tariff is redesigned in advance of a review of the *Transmission Regulation* and resolution on a number of ongoing regulatory proceedings, including but not limited to the Distribution System Inquiry (Proceeding 24116) and the DCG Credit module for Fortis' Phase II application (Proceeding 26090) (collectively, the "Ongoing Matters"). 2 – Proposal 3 freezes current rates for "customers that would see large rate increases." Proposal 4 suggests a transitional mechanism that changes the rates gradually over 5 years. Both of these proposals are sub-optimal relative to waiting to redesign the bulk and regional rates until after the Ongoing Matters are finalized. Further, in the event that one of these proposals are adopted, they cannot be designed to only apply to large industrial load customers as this would be unfair and discriminatory. Those load customers are not the only businesses in Alberta that have made investments based on the price signals in the transmission tariff. There are also DCGs in Alberta that have made capital investments based on DCG Credit expectations. Any grandfathering or transitional mechanism must be applied more broadly, such that DCGs are also protected by this rate mitigation scheme. In the event that any change to the status quo is filed with the Commission by the AESO, the DCG Consortium supports the use of a grandfathering mechanism that protects existing investments. 3 – Proposals 3 and 4 both suggest replacing the 12CP charge with an un-ratcheted NCP charge. This is not cost causal. Sending an incentive to lower individual monthly NCP charges is likely to create behavioral changes, but that behavior would not reduce the future needs of transmission infrastructure development. During their presentations, the consumer groups argued that there are no price signals that can be sent to load, instead stating that this is not a cost causation exercise, but rather a cost allocation exercise. This is incorrect. While under the current system, generation development is expected to drive the majority of short-term future transmission expansion, there are also behaviors of aggregate Alberta load that could lead to increased future transmission spending. Accordingly, as the tariff is paid by load, the tariff rates should be designed to disincent undesirable behavior and incent desirable behavior towards the goal of minimizing future transmission costs to the extent possible. Considering the real time incentive, loads should not be incented to flatten their own individual load shape, as would be incented by an un-ratcheted NCP, but rather should be incented to flatten the aggregate load shape. The aggregation level needs to be determined based on transmission system planning. The AESO has

	expressed that there is less value in a flat overall Alberta load shape (as incented by the 12CP) but that there may be value in flatter individual regional peaks (as proposed by Bookend B). Even ignoring any real-time incentives that can be sent to load through something like a 12CP or regional CP charge, the tariff could still be designed to incent location of new industrial loads. The system would benefit from new loads that have some optionality in location choosing to locate in generation rich areas that are currently exporting electricity to other regions. 4 – The presenter of Proposal 4 argued that all hours contribute to a need for transmission which justified the use of an NCP charge. However, it cannot be the case that reduced consumption in all hours and in all areas is equally desirable. This proposal would incent a flat load shape for each customer, but this is less desirable than a flat load shape for the full system, as is currently incented by the 12CP charge. While the 12CP charge may not necessarily be the most desirable, it should be replaced with a new charge that incents behavior that is determined to be desirable in the goal to minimize future transmission costs. 5 – It is unclear if Proposal 7 would be able to meet the criteria of minimal disruption. Analysis would need to be performed by the AESO to determine the level of the charges proposed. This analysis needs to be performed in order to move this conversation from the theoretical into a space where the proposal can be fully understood and discussed in consultation. The primary concern of the DCG Consortium is that too much of the costs would be driven into the customer charge category. 6 – Assuming the concern raised above regarding Proposal 7 was determined to be minimal (i.e. the majority of the bulk and regional charges continued to be avoidable rather than fixed preventing a significant increase in large industrial bills and a significant decrease in DCG Credits), then the DCG Consortium is supportive of this proposal. Assuming high charges for both the peak inflows and regional peak charges, this sends strong incentives. Specifically, the peak inflows incentive incents industrial loads to locate in generation rich areas that currently often export electricity to other regions. At the same time, it would incent DCG to connect in regions that currently are often importing power from other regions. These incentives can help to minimize need for future transmission infrastructure.

3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	The DCG Consortium prefers Proposal 1. While the status quo may not be the best outcome in the long run, maintaining the status quo until the Ongoing Matters are resolved is the only responsible path forward. Investor certainty and regulatory efficiency require that we do not waste time debating a new tariff structure only to have it changed again quickly thereafter. Further, given regulatory lag (the AESO has noted that this tariff may be in place by January 1, 2023), this tariff design may never be fully put into place if a new *Transmission Regulation* comes into place part way through the regulatory process. The current *Transmission Regulation* is set to expire at the end of 2021. In the event that the AESO is unwilling to wait for the next *Transmission Regulation*, then the DCG Consortium supports some version of Bookend B (i.e. modifications to Bookend B should be further explored and the DCG Consortium will provide further comments in future comment matrices regarding preferable modifications as more information comes to light). The AESO should further explore Suncor's proposed peak inflow hour as a possible modification to Bookend B. However, until further information is provided, the DCG Consortium is unable to comment on if this proposal creates issues. Specifically, it would be important to understand the size of the three charges (120CP, peak inflow, and customer charge) in order to understand if this proposal is able to pass the test of 'minimal disruption.' The DCG Consortium supports Proposal 7 as a theoretically sound approach to solving the problem. However, the DCG Consortium is concerned that too much of the transmission revenue requirement may be classified as a customer charge, which would be detrimental from a minimal disruption perspective. The DCG Consortium notes that Bookend A should not be considered any further. This bookend includes a complete lack of price signals. While a large portion of the transmission costs are sunk there will always be a portion of transmission costs that are future costs. These costs can be influenced and can be kept lower through behavior. Accordingly, removing all incentives from the tariff rates will serve to increase future transmission costs. Proposals 3 and 4 are likewise unacceptable for the reasons outlined in response to Question 2.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	

6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	The DCG Consortium prefers a grandfathering approach that respects all sizeable capital investments that have been made in response to the existing transmission tariff. This includes industrial customers that have invested in on-site generation or price responsive load capabilities and it also includes all DCGs that have responded to the DCG Credits. As an alternative, the AESO could consider a transitional mechanism that applies equally to all Albertans as a mitigation approach. This involves developing the end state rate design and transitioning the rates from the current state to the end state through marginal year over year changes that prevent rate shock. The rates in each year would apply to all rate payers. This transitional mechanism will clearly show the final state of the rate design such that new investment can make investment decisions based on the final rate design, solving any incentive issues identified with the current design. In the meantime, it will allow existing customers who have made investments based on the existing tariff to reap some benefits of those investments for a number of additional years. A grandfathering approach is preferable to a transitional mechanism as it allows companies that have made substantial investments in response to the existing tariff to earn a return on those investments whereas a transitional mechanism will limit the benefits available to those companies.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	
8. What are the challenges or unresolved questions with your preferred proposal?	

9. Additional comments	To summarize, the DCG Consortium supports continuing with the status quo until the resolution of some or all of the Ongoing Matters. In the event that the AESO chooses to file for a change to its rate design in June 2021, the DCG Consortium supports a version of Bookend B. The DCG Consortium will provide further comments regarding which modifications to Bookend B are most preferable and why in a future comment matrix. Further, in the event that the AESO is filing for changes to its bulk and regional tariff design in 2021, the DCG Consortium supports the use of a grandfathering mechanism that protects investments that have been made in response to the existing tariff design. This would include grandfathering of both load customers as well as DCGs that have responded to the DCG Credits. If a grandfather mechanism is considered to be overly complex, a transitional mechanism would be an acceptable substitute.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Timing of Redesign			 1		 2	 2			
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid				 3	 3			
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build				 4	 4			 6
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted				 2	 2			5
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Dale Hildebrand
Comments From:	Dual Use Customers			**Phone:**	403-869-6200
Date:	2020/11/20			**Email**:	dale.hildebrand@desiderataenergy.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Given the pandemic-related constraints, the session was run well. It would have been helpful if the energy storage presentations could have been consolidated, since the messaging was fairly consistent. Allowing panelists to type in questions could save time. The moderator did a good job of allocating time to various groups.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	Proposal 1 achieves the objectives and has been approved by the AUC on multiple occasions. DUC will not be providing a view on the energy storage proposals at this time. Energy storage should compete in an fair, efficient and openly competitive manner. Proposals 3 and 4 are enormously disruptive and are disconnected from cost causation. NCP is not an efficient price signal and the transmission system was

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Questions	Stakeholder Comments
	not built based for the NCP demand of all Alberta loads. The proposal means that every hour each month has the same impact on cost causation – this is simply not the case. NCP will lead to increased transmission investment and higher transmission tariff costs. Grandfathering all existing customers will establish a complicated settlement system and discourage any new investment, both in load additions and new cogeneration. The only way to reduce transmission tariff rates is to add new loads and increase billing determinants – NCP will do the opposite. Proposal 7 is an improvement on AESO's proposals, but it is not simple, could be disruptive and may result in large fixed costs to smaller customers. If the AESO is considering moving forward with Proposal 7, it should be modelled to enable customers to fully understand the impacts on all customers.

3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	DUC supports proposal 1:
	
	• Undertaking a massive tariff overhaul (during a pandemic and economic downturn) without full knowledge of all the components will lead to instability and rate uncertainty. Rolling out a tariff overhaul during a pandemic is **IRRESPONSIBLE**
	
	• DUC emphasizes the following:
	
	  ○ The timing for a change is pre-mature. There are many elements that have not been resolved and will ultimately impact the ISO tariff causing further revision, including:
	
	  ▪ The Transmission Regulation being re-examined by government by the end of 2021
	
	  ▪ Government changes related to self-supply and net-export expected in the spring of 2021
	
	  ▪ AUC changes resulting from the Distribution System Inquiry (such as aligning transmission and distribution rates). Further proceedings expected in 2021.

Questions	Stakeholder Comments
	▪ AUC changes to sub-station fraction and DCG credit issues need to be addressed. o Alberta government policy for the past 25 years has been to encourage efficient and cost-effective on-site generation. The proposed tariff changes will impose significant new risks and erode investor confidence, leading to the development of more expensive forms of natural gas fired electricity generation. o You will hear from consumers that a change may require considerable mitigation if we want to keep price responsive loads operating in Alberta (and not leaving the province). o The AESO should work with both the DOE and AUC to resolve the issues impacting the Tariff.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes. Please see table below.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All customers are impacted by the high transmission costs experienced in Alberta, created by what many consider to be a massive over-build of transmission. Based on the price signals being provided – electricity, carbon and wires costs - customers have been actively managing their risk in this area through efficient, on-site cogeneration and demand response. A proposal that disadvantages the consumers who actively manage their risk, with considerable investment, is unacceptable to DUC. It is not clear why sectors of the of the market, such as Transmission Facility Owners (TFOs), who do not pay transmission tariffs should be participating in this stakeholder engagement. The AESO should explain their rationale as to why they are allowing sectors that are not impacted to participate in this process.

Questions	Stakeholder Comments
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	DUC cannot re-iterate enough that all customers are being impacted by the high transmission costs experienced in Alberta. For the AESO to simply try to allocate more costs to a subset of customers who are already in great financial difficulty does not seem sustainable. These customers may leave the grid, causing all other customers to pay more to cover costs that they previously covered. The AESO's proposed tariff design will not send an efficient price signal to reduce future transmission investment. All transmission load customers will end up paying higher delivered prices for electricity. This is not in the public interest. It is already evident that transmission costs continue to rise as DTS load – the load that actually pays the bill – is being eroded. Increasing costs on sectors that can actually respond will actually increase costs to the remaining consumers.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	ADC, DUC and IPCAA did not specifically address energy storage issue in our proposal.
8. What are the challenges or unresolved questions with your preferred proposal?	There are minimal challenges with our proposal. This rate design has been approved previously on several occasions by the AUC. 12 CP is the standard is many jurisdictions in North America. The 12 CP price signal is strong and effective. Let 12 CP work.
9. Additional comments	We cannot stress enough that until all the unresolved elements are dealt with by the DOE and AUC, it is premature to undertake a major tariff change that will have to be re-done in a few years. This AESO initiative is undermining investment in Alberta at a time when investment in load is required to reduce the transmission costs to be borne by all sectors. Ultimately, the optimal way out of the dilemma of high transmission costs is increased demand, not a re-allocation that induces load to stop consuming or leave the province.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								?
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Justin Rangooni, Executive Director
Comments From:	Energy Storage Canada			**Phone:**	647-627-1815
Date:	2020/11/20			**Email**:	jrangooni@energystoragecanada.org

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Energy Storage Canada (ESC) found the session valuable. With the amount of content and discussion, a potential improvement could be to host the session in two half-day increments instead of a single full day session.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	ESC is focused on tariff treatment of energy storage resources. Excluding the ESC proposal, ESC prefers the RMP proposal (Proposal 6). The RMP proposal aligns with ESC's recommendation that storage be treated as a supply resource;

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Questions	Stakeholder Comments
	specifically, a peaker in RMP's recommendation. DTS charges are only applied to station service load and ESC believes this is prudent. ESC agrees that storage paying GOUC can provide a price signal for locating energy storage resources.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Excluding ESC's proposal, the RMP proposal best serves storage participants since it establishes a clear, unique, and consistent tariff treatment for storage.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Market participants with peaking generation assets are most impacted by the preferred proposal because the RMP proposal would remove barriers to competition. No mitigation is recommended since fair and equal competition for energy injection during peak demand hours is the result of the proposal. This meets the Fair, Efficient and Open Competition Regulation (FEOC) objectives.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	Energy storage resources would be treated like a peaking generation resource with modifications for the control/signal for consumption by the storage facility to mitigate constraints on the transmission system.
8. What are the challenges or unresolved questions with your preferred proposal?	Determining station load for DTS payments can be complicated for different storage technologies. Clear process is needed to implement the preferred tariff design. Allowing AESO control over consumption of an energy storage resource will raise issues for storage participants. No other consumption in the AIES is scheduled and dispatched by the AESO; therefore, storage would be at a unique disadvantage. Further, there is concern that managing storage consumption would be used as a tool to manage other system issues not related to

Questions	Stakeholder Comments
	transmission system constraints (e.g., supply/demand balance, tight supply situations, etc.).
9. Additional comments	ESC was asked during their proposal presentation if they believed bulk transmission could be built because of energy storage. ESC firmly believes that no bulk or regional transmission should be developed for storage resources. Building new transmission requires the AESO planners to review and identify a system need to justify the transmission system expansion. System needs are determined based on assumptions of the future state of the transmission system and operating parameter assumptions for all load, generation, and storage facilities. For storage to be the cause of new transmission, AESO system planners must assume either: A) the storage facility would consume when the transmission system is constrained for enough hours to require the need for expanded capacity; OR B) the storage facility would inject energy when the transmission system is constrained for enough hours to require the need for expanded capacity. Under situation A), the natural operation of energy storage is to consume when the transmission system is unconstrained (e.g., off-peak hours). In the very rare instance that the transmission system is constrained; the most logical cause is abnormal system conditions that should not be the basis for new transmission system expansions. Under situation B), energy storage would be competing against other high merit order generation for the right to inject. Storage should be treated the same as any other generation resources and be supported by the transmission regulation to 'connect and compete'.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid						[NTD: CanREA proposal did not include alternative design]		
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Mark McGillivray
Comments From:	ENMAX Corporation			**Phone:**	403-689-6031
Date:	November 20, 2020			**Email**:	mmcgillivray@enmax.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The stakeholder session was valuable. ENMAX appreciated the opportunity afforded by the AESO for stakeholders to present their own options.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	ENMAX has not completed Table 1. In our view, none of the proposals have been studied in sufficient detail to understand both their direct effects and their potential unintended consequences. Due to the number of moving parts and potential for new policy directions (e.g., the Distribution System Inquiry, the treatment of self-supply and export, and possible changes to the *Transmission Regulation* [which expires at the end of 2021]), and the current economic challenges being faced by Alberta, major tariff changes are a concern.

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Questions	Stakeholder Comments
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	Please see ENMAX's response to Question 2.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	The extent to which any proposal meets the rate design objectives cannot be determined without further study. Please see ENMAX's response to Question 2. Regarding the rate design objectives, ENMAX has the following comments. **Cost Responsibility:** Under the AESO's cost responsibility objective, "Cost recovery is based on the *benefit* and *value* transmission customers receive from the existing grid." One possible interpretation of *value* in this context is that it includes physical comfort (heating, lighting, cooking, etc.), the ability to sell services, the ability to manufacture products, and the ability to convert electrical energy to another form, store it, and convert it back to electrical energy at a later time. Under this interpretation, the nature and magnitude of the value customers derive from their transmission connections should be irrelevant to tariff development. To avoid confusion with the value that customers receive directly from the transmission system (stable voltage, stable frequency, access to reserve generation, etc.), and to reflect that the AESO must recover the *cost* and not the *value* of the transmission system, this item might be rephrased in terms of the principle of cost causation which has been identified by the AUC as the paramount consideration in rate design. **Efficient Price Signals:** While price signals ideally help to avoid future transmission build, they should also encourage efficient use of existing infrastructure. Efficient price signals are one of the objectives of the *Electric Utilities Act,* and given the FEOC provisions of the legislative framework, must also be fair. **Minimal Disruption:** This is a "nice to have" objective: adherence to legislation clearly takes priority. That said, this objective supports ENMAX's position that major tariff changes are premature. Given the plethora of moving parts noted above, major changes now might have to be followed many more major changes within a few years, which would be disruptive.

Questions	Stakeholder Comments
	Simplicity: This is a "nice to have" objective. Market participants should be sophisticated enough to understand and respond to tariffs and rules, even complicated ones. Simplicity is the lowest priority objective. **Innovation and Flexibility:** This principle must be traded off against regulatory certainty.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Indeterminate for the reasons noted above.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Indeterminate for the reasons noted above. Mitigations cannot be determined until the tariff design is much further along.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	Since ENMAX has no preferred option, the treatment of energy storage is unknown. Please see our response to Question 9.
8. What are the challenges or unresolved questions with your preferred proposal?	As noted above, ENMAX does not believe that any of the proposed options are supported by sufficient evidence. For example, the data available to ENMAX suggests that there are weak correlations between 12CP hours, peak transmission-system flows at either the bulk or regional levels, intermittent-generator outputs, and pool prices, yet most (if not all) the proposals rely on such correlations. Also, while the direct effects on customers of the AESO's bookends have been estimated, the direct effects of other proposals have not. In addition, the indirect or knock-on effects of the proposals—which could include accelerated grid defections, distorted price signals for on-site generation, or other as-yet-unknown consequences—have not been studied.
9. Additional comments	**12CP:** The 12CP method is not a good transmission cost allocator, for two main reasons. First, there is weak correlation between the 12 monthly coincident peak demand hours and transmission-system power flows; and second, transmission development is now just as often driven by generation as by load. That said, ENMAX does not support an immediate change to the 12CP method and would

Questions	Stakeholder Comments
	support a review of the Transmission Policy that may be restricting the AESO from considering other tariff options. **Regional Coincident Peak Demand:** As of today, there is no compelling evidence that supports a move to using regional coincident peak demands. To support such a move the market would have to see data showing that intra-regional power flows are highly correlated within regions and dissimilar across regions, that those power flows are highly correlated with regional peak demands, and that no absurdities would arise from the definition of regional boundaries. **Energy Storage:** The future tariff should be technology agnostic with no preferential rates for certain customers or purposeful cross subsidization. If interruptible tariffs are contemplated for energy storage facilities these types of rates must be equally applicable to other facilities and customers that can meet the interruptible conditions. As noted in ENMAX's last round of comments to the AESO following session 2, the AESO appears to have correctly recognized that an energy storage facility looks like a generator when it is producing power and looks like a load when it is absorbing power. This is consistent with the fact that the need for transmission facility additions or upgrades, and therefore cost, is driven by power flows, not by how the power is produced or what a customer uses the power for. It would be a violation of the principle of cost causation to create special rates for specific types of customers.

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

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Darren Hoeving
Comments From:	FortisAlberta			**Phone:**	403-988-4336
Date:	[2020/11/20]			**Email**:	darren.hoeving@fortisalberta.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	FortisAlberta found the session helpful in that it provided an opportunity to hear the issues and concerns from the perspectives of end-use Customer groups. From FortisAlberta's perspective, the AESO may want to separate the Energy Storage stakeholder issues/concerns to contain the scope of this ISO tariff design initiative. The Energy Storage proponents appear to be proposing that the ISO tariff be applied differently (or not at all) to Energy Storage proponents, as compared to other system users. Such proposals are more related to establishment of a non-wires alternative framework in Alberta (which currently does not exist) than the issue of bulk and regional tariff design. As such, FortisAlberta has limited its comments to proposals that propose a bulk and regional tariff design which can be applied equitably to all market participants.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	FortisAlberta considers that the objective of this stakeholder engagement is focused on assisting the AESO in determining a future bulk and regional tariff

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Questions	Stakeholder Comments
	design that achieves a reasonable balance or “sweet spot” between the AESO bookends and in meeting the rate design objectives as presented by the AESO. With respect to the objective of **Reflecting Cost Responsibility** (or Cost Causation), FortisAlberta finds that recovery of wires costs based on some form of a monthly NCP billing determinant is more reflective of cost causation than any 12 CP rate design can convey. This assertion is grounded in the physical reality that any wires element (whether it be at transmission or distribution voltage, or whether it is a power line / cable, switch, bus or transformer) must, at minimum, be planned and built to accommodate the maximum NCP flowing through the wires element, irrespective of the time that that maximum flow occurs. As such, this objective of reflecting cost causation is better met by Proposal 3 (UCA/AML/CWSAA/Conoco) and Proposal 4 (CCA). With respect to the objective of providing **Efficient Price Signals** (i.e. sending price signal to alter behavior to avoid future transmission build), FortisAlberta considers that the use of 12 CP, while it provides a signal that larger sophisticated Customers can respond to, is not necessarily an economically-efficient price signal for purposes of altering Customer consumption behavior for purposes of avoiding future transmission build. Further, while FortisAlberta understands that part of providing efficient price signals is providing a signal that Customers can meaningfully respond to, the form of the price signal or billing determinant(s) should not allow Customers to avoid costs for which they should be responsible for, which is possible under the 12 CP structure. Conversely, Proposals 3 and 4 which recover bulk and regional costs using a non-ratcheted NCP billing determinant would amount to a large and fixed price signal for which demand responsive Customers cannot effectively respond. FortisAlberta considers that such a bookend, if used exclusively for recovery of bulk and regional costs could potentially have the impact of driving large demand responsive Customers off the system and ultimately causing DTS billing determinant and revenue erosion. Such an outcome would not be economically efficient or in the best interests of the system or Customers, generally (i.e. the “utility rate death spiral”). With respect to the objective of ensuring **Minimal Disruption** (i.e., Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted), FortisAlberta concurs with Proposal 1 proponents

Questions	Stakeholder Comments
	(ADC/DUC/IPCAA) in that CP-responsive loads, who have been responding to the currently approved 12 CP rate structure for over 15 years, should not be severely impacted by any abrupt change to the tariff structure. As such, while FortisAlberta submits that the 12 CP price signal is neither appropriate nor sustainable for wires cost recovery in the long term, the AESO should determine what its ideal (target) rate structure should be in the future and then establish the timeline and roadmap to transition from cost recovery using full 12 CP to a new bulk and regional tariff structure (once established). The timeline and pace at which the ISO tariff transitions to the new structure should be gradual and should fully consider the economic downturn that Alberta Customers are currently experiencing. Allowing a gradual transition to a rate structure that reflects cost responsibility and provides economically efficient outcomes for the development of the transmission system would promote rate stability and allow such Customers to plan their operations to gradually adjust to responding to the new target rate structure / price signals over a reasonable time period. With respect to the objective of **Simplicity** (i.e. simple/clear price signals while achieving design objectives), the status quo (12 CP) Proposals 1 and 7 and the (non-ratcheted NCP) Proposals 3 and 4 could both be considered simple and clear price signals. However, 12 CP is not necessarily simple in that the CP price signal requires time-stamp information in the metering/billing systems and requires the Customer to forecast when the CP will occur in order to respond effectively. In addition, to provide rate mitigation to CP responsive Customers, Proposals 3 and 4 recommend some form of rate mitigation / transition, which FortisAlberta agrees will be required to ensure minimal disruption to this Customer group. However, Proposals 3 and 4 suggest that the way to affect such mitigation is by using grandparenting for only certain Customers or providing some sort of transitional credit mechanism to offset the rate/bill increases caused by the new target structure. From FortisAlberta's experience, such ratemaking / mitigation proposals are not simple as they will place the AESO and AUC in the position of always having to arbitrate and enforce the boundary between being eligible for such mitigation or not. This may ultimately lead to discriminatory treatment or intergenerational equity issues and a bifurcation of the ISO DTS tariff which, in FortisAlberta's view, will prove to be complex and unworkable. Proposal 7 (Suncor) proposes a region-specific rate structure for recovery of regional costs, which, in FortisAlberta's view introduces unnecessary complexity in the tariff design. In the interests of maintaining simplicity, FortisAlberta

Questions	Stakeholder Comments
	recommends that the AESO should consider bulk and regional cost recovery together (share the same rate structure) as both subfunctions are similar in that they provide shared use among all Customers in Alberta. Such an approach is simple and accords with the non-locational or "postage stamp" basis required for the ISO tariff in legislation. With respect to the objective of **Innovation and Flexibility** (ISO tariff provides optionality for transmission Customers to innovate while not pushing costs to other Customers), FortisAlberta considers that most proposals (with some modification) can be refined by the AESO over time to provide a level of innovation and flexibility for Customers. This could include further expansion of opportunity (i.e. such as DOS), interruptible and load attraction rates to maximize and/or optimize use of the existing system. Such optional rates beyond the base DTS rate would allow for improved efficiency or Customer use of the system while recovering additional contributions towards revenue (which would be to the benefit of all ratepayers). Please see Table 1 for FortisAlberta's assessment of how each proposal achieves the rate design objectives for each of the proposals presented at Session 3 (excluding the energy storage proposals). FortisAlberta has also repurposed the "Example" column to do a similar assessment on its suggested Sweet Spot (Hybrid) alternative, as discussed further below.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	In reviewing the proposals provided by the stakeholders, FortisAlberta observes that the proposals are generally aligned with the AESO's bookends in that they either advocate for the continuation of the status quo: 12 CP "Few Hours" or movement towards a monthly NCP "Fixed Charge". Further, none of the proposals brought forward recommend recovery of any significant portion of bulk or regional transmission costs based on "All / Many Hours / Energy" - usage basis, even though the transmission system is planned, built, available and used to accommodate the transmission of energy to consumers 8760 hours per year. As such, FortisAlberta considers that none of the proposals in and of themselves (or without modification) are a preferable path forward. As such, FortisAlberta suggests that there is merit in the AESO considering a rate structure that has been successfully used in the past (circa. 1980s & 90s) to

Questions	Stakeholder Comments
	encourage Customers, particularly large demand responsive Customers, to improve their load factor generally. Load factor is generally defined as the ratio of average to peak load and is really an indicator of how efficiently Customers are using the system, generally. The good news is that Alberta has had the luxury of having one of, if not, the highest load factors in any North American jurisdiction. In FortisAlberta's view, this is largely attributable to two factors: (1) Alberta has a higher weighting of large industrial loads which tend to operate at higher load factors than small Customers / groups, and (2) These large higher load factor load Customers have been exposed and have responded to the price signals conveyed by rate structures to flatten their load (whether that be, for example, responding to NCP/ load factor structures in TransAlta's Large General Service Rate 790 prior to 2001 or the ISO tariff's CP price signal in the last 15 years). In AUC Proceeding 24116 (the "Distribution System Inquiry" or "DSI"), FortisAlberta re-introduced the concept of **Load Factor** rates by stating that rate structures that are largely capacity-based and send price signals that broadly encourage Customers to improve their load factor (flatten their load consumption profile) generally incent Customers to make the most efficient use of the existing distribution (or transmission) elements and capacities that serve them. That is, to the extent that Customers can flatten their load consumption through the distribution (or transmission) system elements that serve them, this has the general effect of potentially freeing up capacity for use by future Customers thus alleviating or deferring the need to build additional distribution and transmission capacity, generally. As such, rate structures that generally incent Customers to improve their load factor and optimize the use of the existing system, such as load factor or on-peak period rates, align with the principle of economic efficiency and should, therefore, be considered in the future development of transmission and distribution (wires) rates in Alberta. Based on the foregoing, FortisAlberta suggests that there is merit in the AESO pursuing the "Sweet Spot" by considering a two-part tariff design (the hybrid load factor rate structure) which is a hybrid of:

Questions	Stakeholder Comments
	(1) a monthly non-ratcheted NCP component as advocated for in Proposals 3 and 4 (potentially modified for NCP demands registered in the broad on-peak hour periods / windows only), and (2) a load factor (energy) component which charges each market participant for energy up to a minimum load factor percentage / hours usage. This load factor rate structure, or sometimes known in industry as the "Wright" rate, is structured to apply an energy charge ($/MWh) for all energy delivered up to a minimum load factor (or hours usage), and zero $/MWh for all remaining energy (MWh) consumed above that minimum load factor. For example, this structure could be expressed as: For the first XX MWh / month / MW of Billing Capacity: a charge of XX $/MWh For all additional MWh: a charge of $0/MWh This load factor component rate structure (with a low minimum floor load factor for the 1st energy block, and zero price for any energy in the remaining block) could be used for recovery of a portion of total Bulk and Regional costs, along with the remaining portion (component) being collected via a monthly on-peak NCP demand charge.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes, as shown in Table 1, FortisAlberta considers that the suggested Sweet Spot (hybrid load factor) rate design meets the ISO tariff objectives better than the bookend proposals brought forward to date.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	FortisAlberta's preference is that whatever target rate design the AESO proposes and implements that all Customers should be treated in a transparent and consistent manner. That is, FortisAlberta's preferred option of gradually transitioning to a hybrid load factor rate structure does not favor any specific Customer groups and is aimed to encourage Customers to avoid over contracting demands and maximizing or optimizing their hourly use of their contract capacity

Questions	Stakeholder Comments
	(i.e., improving load factor), so the grid can be utilized more effectively and developed in an orderly, economic and efficient manner.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	(a) Customers who could effectively utilize their contracted loads and improve their load factors may benefit from the proposal while Customers who currently do not have that flexibility may be impacted. However, the level of the impact will be dependent on the weight of the components in tariff design and how effectively different groups of Customers will react to the price signals. (b) Through careful analysis and mitigation, the tariff could be developed to evolve gradually in a manner that allows Customers to improve their load factors while not experiencing significant billing impacts. This could be done through a phased in approach of slowly moving away from 12 CP to the hybrid load factor rate thereby allowing stakeholders to adjust operations accordingly. FortisAlberta expects that if the AESO also saw merit in pursuing the hybrid load factor structure, that they could analyze the bill impacts from moving from CP to NCP/load factor for each and every POD, and adjust both the weighting of cost recovery between NCP component and the load factor component, or adjusting the minimum load factor (fixed amount energy charge) to minimize the resultant bill impacts. Failing that (i.e., if further mitigation is still required), FortisAlberta recommends that, rather than shielding a specific subset of Customers through rate mitigation approaches such as the provision of transitional credits or establishment of separate rate classes (as contained in Proposals 3 and 4), a better approach would be for the AESO to continue with recovering a portion of bulk and regional through a third component - the existing 12 CP charge (which could be gradually phased out over time, in favor of the two part rate above - preferably after the pandemic / economic recovery). This would mitigate impacts to those currently 12 CP responsive loads. In any event, the takeaway for FortisAlberta is that the large Customers, who have the ability to alter their operations to respond to whatever price signals are being conveyed by the tariff, are a valuable resource for the system as a whole, and therefore any movement away from the 12 CP should be introduced gradually so as to not create abrupt financial impacts to these

Questions	Stakeholder Comments
	Customers who have, in good faith, previously responding to price signals conveyed by the tariff.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	(a) & (b) Please also see our response to Question 1. The Energy Storage proponents appear to be proposing that the ISO tariff be applied differently to Energy Storage proponents, as compared to other market participants, which has more to do with establishment of a non-wires alternative framework than the bulk and regional tariff design. As such, FortisAlberta has limited its comments to proposals that provide a bulk and regional tariff design which is applied to all market participants and therefore has refrained from providing comments with respect to the proposals made by Energy Storage stakeholders. From transmission system cost causation and operational perspective, Energy Storage is no different than other load or generator Customers that use and are served by the grid and therefore should be subject to the same tariffs. The value of the services provided by Energy Storage or any other non-wire alternatives (NWA) would have to be addressed through establishment of a NWA framework in Alberta and within the context of AESO transmission planning.
8. What are the challenges or unresolved questions with your preferred proposal?	Although FortisAlberta did not present a proposal, FortisAlberta's recommendations in the DSI, also as restated in this comment matrix in response to Question 4 are subject to Customer acceptance and Customers' reaction to the price signals, level of billing impacts and an evolving economic and regulatory environment.
9. Additional comments	Please refer to the *P1 – System Planning Report (Sept. 10, 2019)* filed in the "Material' section of Session 1 (March 13, 2020) of this proceeding. This is a helpful in-depth report prepared by the AESO for the Transmission Tariff Work Group which discusses: the Transmission Planning process used in Alberta, drivers, and costs for recent transmission projects (2013 – 2019), and forecasted system projects drivers and costs. This report gives a clear understanding on the role of area, regional, and system coincident peaks in transmission planning, which drives system costs.

Questions	Stakeholder Comments
	This report can be found at: https://www.aeso.ca/assets/Uploads/TTWG-P1-System-Planning-Report.pdf

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Sweet Spot (Load Factor Hybrid)	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission Customers receive from the existing grid			No Comment			No Comment	No Comment	
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build			No Comment			No Comment	No Comment	
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted			No Comment			No Comment	No Comment	
Simplicity	Simplicity and clear price signals while achieving design objectives			No Comment			No Comment	No Comment	
Innovation and Flexibility	ISO tariff provides optionality for transmission Customers to innovate while not pushing costs to other Customers			No Comment			No Comment	No Comment	

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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Kurtis Glasier
Comments From:	Heartland Generation Ltd. ("Heartland Generation")	**Phone:**	587-228-9617
Date:	[2020/11/20]	**Email**:	Kurtis.Glasier@heartlandgeneration.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Heartland Generation believes that Session 3 was valuable and appreciates that the ISO Tariff consultation is an important initiative. However, the session could have benefitted from greater categorization of the presentations/proposals. In Heartland Generation's opinion there were two ways presentations could be categorized: fulsome approaches to bulk and regional tariff design, and proposed energy storage treatment. In future consultation sessions it may be beneficial to separate full bulk and regional tariff design proposals from those that are specific to only treatment of a single customer class or asset type.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate.

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Questions	Stakeholder Comments
	Heartland Generation was not able to evaluate Proposals 2, 5, and 6 because they are specific to energy storage and therefore difficult to evaluate using the provided design objectives.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	Heartland Generation prefers Proposal 1(ADC, DUC and IPCAA) for the following reasons: 1. As explained by ADC, DUC and IPCAA, "there are many elements that have not been resolved and will ultimately impact the ISO tariff, including: • The Transmission Regulation being re-examined by government • Any AUC changes resulting from the Distribution System Inquiry (such as aligning transmission and distribution rates) • Government changes related to self-supply and export • Sub-station fraction and DCG credit issues" In other words, there are currently many pending consultations that could materially impact the ISO Tariff. Consequently, Heartland Generation shares their concern that "a major tariff overhaul now will be followed by another overhaul when these elements are resolved." The ongoing COVID-19 pandemic has put considerable stress on industries; therefore, it is important that investor confidence be maintained in this unprecedented time. It would be more efficient to have the bulk and regional tariff design after gaining more certainty regarding policy direction from the government and regulator. 2. The AESO has not provided sufficient evidence to justify a departure from the current ISO Tariff design, which has been approved by the AUC as just and reasonable over consecutive applications. As shown by ADC, DUC, and IPCAA, the current rate design results in consistent response behavior by flexible loads; this suggests that it is working exactly as intended as a price signal for avoidable transmission costs. Furthermore, the AESO has not yet produced a cost of service study or any other analysis indicating that the current tariff design is defective.

Questions	Stakeholder Comments
	3. Any significant departure from the status quo, such as the AESO's proposed "bookends," risks exposing affected loads to rate shock. As shown by ADC, DUC and IPCAA, bookends A and B would increase transmission costs by 58% and 106%, respectively, for indicative industrial loads in the Northwest.[1] This result would have significant consequences for these loads. 4. Given the circumstances, Heartland Generation agrees that the AESO and stakeholders should prioritize stability to encourage investment; the current economic and regulatory climate is not conducive to a major tariff overhaul.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	As the status quo, Proposal 1 is necessarily simple and minimally disruptive; these are priority objectives given the circumstances, see response to question three above. The current tariff design does send a strong behavioural signal for customers to "innovate" in furtherance of being more "flexible" – an outcome that the AESO has supported in the past and the AUC has concluded "demonstrates the effectiveness of the rate design rather than providing evidence of gaming the billing determinant."[2] This rate design can be further enhanced to meet this objective through the introduction of an opportunity service rate class; this opportunity service would be modelled after the import/export rate classes (rates IOS and XOS) and be extended to interruptible loads and energy storage assets that qualify. Further, the AESO is on the record as saying that the "system is studied and developed under system peak conditions," and therefore "the 12CP method seems to reflect one of the major consideration for planning and developing the transmission system."[3] Given the lack of evidence to the contrary, it is difficult for stakeholders to conclude that the existing rate design no longer appropriately

[1] ADC-DUC-IPCAA Rate Design Presentation, slide 17.

[2] AUC Decision 2014-242, para. 124.

[3] AUC Decision 2014-242, para. 127.

Questions	Stakeholder Comments
	allocates costs based on cost causation. Just because the resulting rate has gone up does not invalidate the underlying principles upon which the methodology is based.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All stakeholders are well served by continued investor confidence and application of Tariff rates under an AUC approved methodology. The 12-CP methodology, having been approved by the AUC, is just and reasonable and therefore serves stakeholders and the public interest. Additionally, Proposal 1 minimizes the risk of regulatory holdup. Customers and investors have made a number of commercial decisions in Alberta based on the prevailing ISO Tariff and inherent price signals. Some proposals, like Proposal 3, have inadequately tried to address this through vague “grandfathering” provisions. Any “grandfathering” provision would need to address a threshold which would cause a site to lose its grandfathered status, e.g. would minor modifications to the industrial processes create the significant risk of exposure to the new Tariff design.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	Proposal 1 is the status quo and therefore would not change the treatment that stakeholders receive today or require any mitigation measures.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	Heartland Generation believes that energy storage treatment does not necessitate changes to the overall bulk and regional tariff design. Energy storage, as it acts as both a load and supplier of electric energy may be appropriately handled by a rate class similar to the opportunity service available for imports/exports (e.g. IOS and XOS). The addition or modification to existing rate classes does not warrant changes to how the overall tariff allocates costs. Further, energy storage that is used for specific relief of congestion or as a non--wires alternative should not be addressed by the bulk and regional tariff design. These specific qualities that the energy storage is providing should be individually contracted for and paid directly, in much the same way the AESO contracts for Ancillary Services.

Questions	Stakeholder Comments
8. What are the challenges or unresolved questions with your preferred proposal?	The current tariff design has been continuously approved as just and reasonable, was implemented on the grounds that it appropriately allocates costs based on cost causation, and, as the status quo, is most conducive to investor certainty and stability in an otherwise challenging economic climate. Evidence to the contrary has not been presented that would otherwise give rise to any unresolved questions. Unless there are specific concerns and supportive analysis, the forthcoming legislative review of the Transmission Regulation should be completed prior to fundamentally overhauling the Tariff.
9. Additional comments	Heartland Generation does not currently have additional comments.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Vittoria Bellissimo
Comments From:	Industrial Power Consumers Association of Alberta (IPCAA)	**Phone:**	403 966 2700
Date:	2020/11/20	**Email**:	Vittoria.Bellissimo@IPCAA.ca

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Given the pandemic-related constraints, the session was run well. It would have been helpful if the energy storage presentations could have been consolidated, since the messaging was fairly consistent. Allowing panelists to type in questions could save time.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate.

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Questions	Stakeholder Comments
	Proposal 1 achieves the objectives and has been approved by the AUC on multiple occasions. IPCAA will not be providing a specific view on the energy storage proposals at this time. However, we would like to provide a high-level perspective: • Energy storage-related transmission costs should be based on cost causation. • Treatment of energy storage projects needs to be fair to other entities, and consistent, in order to provide certainty and stability for potential investors. • The AESO should consider modelling and reporting on energy storage projects in Alberta, including metrics to evaluate their use of the transmission system. This reporting should be made publicly available. Proposals 3 and 4 are enormously disruptive and are disconnected from cost causation. NCP is not an efficient price signal and the transmission system was not built based for the NCP demand of all Alberta loads. Grandfathering all existing customers will establish a complicated settlement system and discourage any new investment, which is exactly what we need right now. Proposal 7 is an improvement on Proposals 3 and 4, but it is not simple, will be very disruptive and may result in large fixed costs to smaller customers. If the AESO is considering moving forward with Proposal 7, it should be modelled to enable customers to fully understand the impacts on all customers.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	IPCAA prefers proposal 1: • Undertaking a massive tariff overhaul (during a pandemic and economic downturn) without full knowledge of all the components will lead to instability and rate uncertainty. • IPCAA emphasizes the following: ○ Rolling out a tariff overhaul during a pandemic is irresponsible.

Questions	Stakeholder Comments
	○ You will hear from consumers that a change may require considerable mitigation if we want to keep price responsive loads operating in Alberta (and not leaving the province). ○ The timing for a change is pre-mature. There are many elements that have not been resolved and will ultimately impact the ISO tariff causing further revision, including: ▪ The Transmission Regulation being re-examined by government by the end of 2021 ▪ Government changes related to self-supply and net-export expected in the spring of 2021 ▪ AUC changes resulting from the Distribution System Inquiry (such as aligning transmission and distribution rates). Further proceedings expected in 2021. ▪ AUC changes to sub-station fraction and DCG credit issues need to be addressed. ○ The AESO should work with both the DOE and AUC to resolve the issues impacting the Tariff.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All customers are impacted by the high transmission costs experienced in Alberta created by what many consider to be a massive over-build of transmission. Based on the price signals being provided – electricity, carbon and wires costs – customers have been actively managing their risk in this area through efficient, on-site cogeneration and demand response. A proposal that disadvantages the consumers who actively manage their risk, with considerable investment, is unacceptable to IPCAA.

Questions	Stakeholder Comments
	It is not clear why sectors of the of the market, such as Transmission Facility Owners (TFOs), who are not impacted at all, should be participating in this stakeholder engagement. The AESO should explain their rationale as to why they are allowing sectors that are not impacted to participate in this process. It is inappropriate for a TFO to side with some of its customers over other of its customers. It is also highly inappropriate for ratepayers to pay for TFO involvement in this process.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	IPCAA cannot re-iterate enough that all customers are being impacted by the high transmission costs experienced in Alberta. For the AESO to simply try to allocate more costs to a subset of customers who are already in great financial difficulty does not seem sustainable. These customers may leave the grid, causing all other customers to pay more to cover costs that they previously covered. It is already evident that transmission costs continue to rise as DTS load – the load that actually pays the bill – is being eroded. Increasing costs on sectors that can actually respond will actually increase costs to the remaining consumers. It is not clear to IPCAA why the AESO is looking at over-hauling the tariff, when the necessary mitigation measures will get us back to where we are right now.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	ADC, DUC and IPCAA did not specifically address energy storage issue in our proposal.
8. What are the challenges or unresolved questions with your preferred proposal?	There are minimal challenges with our proposal. This rate design has been approved previously, on several occasions, by the AUC.
9. Additional comments	We cannot stress enough that until all the unresolved elements are dealt with by the DOE and AUC, it is premature to undertake a major tariff change that will have to be re-done in a few years. This AESO initiative is undermining investment in Alberta at a time when investment in load is required to reduce the transmission costs to be borne by all sectors.

Questions	Stakeholder Comments
	IPCAA supports Proposal 1 and notes that this proposal received vocal support during the November 5th session. Ultimately, the optimal way out of the dilemma of high transmission costs is increased demand, not a re-allocation that induces load to stop consuming or leave the province.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

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Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Erika Goddard
Comments From:	Lionstooth Energy			**Phone:**	
Date:	2020/11/20			**Email**:	erika.goddard@lionstoothenegy.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	
	It is our understanding that a request to review the 12CP method was introduced, by a stakeholder, at the start of the 2018 ISO Tariff process (Proceeding 22942). In April 2018, the AESO stated the following was needed with respect to the 12CP method (Exhibit 22942-X0129): "further consultation, associated with a robust and thorough analysis over a longer timeframe, before conclusions can be reached regarding whether the 12 CP methodology should be continued, modified or replaced by an alternative methodology." Sufficient quantitative analysis has not been presented to demonstrate the need for change or that the 12CP method does not send efficient signals. To date, the entire justification for change has been summarized on only 4 slides. We note that following Session #2, the vast majority of stakeholders did not support the AESO's conclusion that the 12CP (status quo) is no longer reasonable, including a general call for more analysis and studies to justify any need to change, and consideration of impacts. We also note that there has been no formal direction issued by the DOE or the AUC directing the AESO to pursue changes to the use of the 12CP method. It is premature to be discussing any alternative rate design options, prior to resolving this fundamental question around the effectiveness of the 12CP method. Further, there has been no quantitative analysis presented along with the AESO's bookends or any other rate designs to suggest

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Questions	Stakeholder Comments
these alternatives would even be any better. To proceed at this point, could be viewed as if changes to B&R tariff design are a foregone conclusion. Prior to proceeding any further, we are asking the AESO to step back and consider the bigger picture. There are real and significant outstanding issues that must be addressed. We firmly believe the following is required before proceeding with any further discussion to allow for an effective and efficient engagement and subsequent regulatory process. This is not an exhaustive list and could be confirmed with input from other stakeholders: • What studies (for example, a Cost of Service study as suggested by many during Session #3) are required? • Are there other studies or analysis that should be completed (jurisdictional review of other tariff structures, some have stated 12CP is quite commonly used throughout North America)? • What process should be used for reviewing these studies with stakeholders? • What other engagements, consultations, or proceedings (such as the DSI and consultation on the TReg) should be further advanced or concluded prior to discussing B&R tariff design changes? • Once the need for an alternative rate design has been established, what analysis and studies should be completed to understand the impact on stakeholders and how this new structure will influence planning? • How should any proposed changes to B&R tariff design be communicated to consumers and rolled out? Until such time that the appropriate studies are completed, shared with stakeholders, and cost causation is understood, we reiterate, continued discussion of changes to the B&R tariff structure is premature, inappropriate, and will simply lead to continued areas of contention and misalignment. Having said this, we believe that consultation on tariff rates for energy storage can and should continue, albeit as part of a separate engagement process (which nearly every stakeholder has also called for). Now is not the time to introduce further uncertainty to our market and our economy. Finally, we reiterate our view that the focus needs to be on vastly improved planning and initiatives that increase utilization and reduce, defer or eliminate the need for further wires growth.	
1. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	*Instructions:* As per the example provided, please indicate how well Proposals 1 through 7 met each of the five Rate Design Objectives by pasting the appropriate coloured circle in the corresponding space. The legend defines and contains the coloured circles from which you can copy and paste into the table. Please provide comments or an explanation of how you came to your conclusions as appropriate.

Questions	Stakeholder Comments
2. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	
3. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	
4. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	
5. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	
6. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	
7. What are the challenges or unresolved questions with your preferred proposal?	
8. Additional comments	

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
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Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Robert Stewart
Comments From:	RMP Energy Storage Inc.			**Phone:**	587-920-4833
Date:	[2020/11/20]			**Email**:	Robert.stewart@rockymountainpower.ca

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	Thank you for the opportunity to present our proposal. Note that there are two distinct but related discussions. Tariff as it applies to load and Energy Storage (ES) tariff. Overall, RMP agrees with multiple proposals that having an engagement during COVID-19 is a challenge for all participants. However, it is imperative that the energy storage tariff is addressed immediately to allow for fair competition between generation developers during this period of profound change in the Alberta energy market. Also note that there were no places to rank AESO current tariff or bookends A and B next to the other proposals.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	**ADC, DUC and IPCAA**: This proposal does not address Energy Storage tariff treatment and therefore does not achieve the Innovation and Flexibility objective. RMP agrees that existing asset owners have made investments based on CP12 price signals and that if there is a required tariff change that future tariffs should align with enabling these investments to reduce transmission build and associated

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Questions	Stakeholder Comments
	costs to these customers. CP12 does not send a clear price signal because is it is unknown until the end of the billing period and some periods do not impact overall transmission capacity. This is inefficient and does not align with cost responsibility or efficient price signals. **Energy Storage Canada**: This proposal only addresses energy storage tariff treatment. RMP agrees with the proposed treatment of energy storage as a supply asset that should not be treated as a firm load customer. RMP agrees that this would be the best and most fair treatment for energy storage. We do think that due to previous consultations and discussions with the AESO that an opportunity rate that applies to interties and flexible load as well as storage would align best within the market and therefore be most likely to be implemented quickly. It is imperative to enable ES participation as soon as possible to enable competition with other generation as coal generation retires. **CWSAA, UCA, AML, and Conoco:** This proposal does not directly address energy storage tariff treatment. Energy storage tariff treatment could be considered under the interruptible load retention opportunity rate but this is not transparent in the proposal. For ES to fit into this opportunity rate it must be competitive with intertie rates. **CCA**: This proposal does not directly address energy storage tariff treatment. RMP can perceive alignment with most of the concepts proposed but there is not enough specificity to agree in detail to the proposal. Energy storage and other technologies could fit within an opportunity rate as discussed provided the rate is competitive with intertie rates. Rate shock protection seems a reasonable proposal to be included in implementation discussions. **CanREA**: This proposal ignores Alberta energy market operation and aligns better with a vertically integrated monopoly model. This proposal only addresses concerns related to energy storage participation. This proposal correctly identifies the issue that energy storage is paying DTS during charging as a firm load customer. The proposal then leaps to suggesting energy storage most closely aligns with a substation, a system asset, without considering that an energy storage asset will dispatch energy onto the system like a generator and therefore impact the energy market. While RMP can see the benefit from energy storage asset being a system asset it does not align with energy market operation or the concept of an open energy market. This proposal shifts cost of integrating wind

Questions	Stakeholder Comments
	and solar generation onto the system which on the surface appears to benefit wind and solar generators. This is true until the system does not implement the required storage assets and the renewable developers have no ability to innovate or competitively implement storage for themselves. This proposal would move the Alberta system towards a model similar to Ontario and this reduction in competition does not align with FEOC principles for the energy market. **RMP Energy Storage:** Our proposal focuses on energy storage tariff treatment but does consider CP12 responsive load. Alternative load tariffs are not considered in the proposal but any of the other proposals could be implemented with this proposed opportunity rate. **Suncor**: This proposal does not address Energy Storage tariff treatment and therefore does not achieve the Innovation and Flexibility objective. This proposal, like the AESO bookends, assumes that all load customers want the same firm product. This proposal suggests the most amount of change to the current system and therefore is the most complicated. Without qualitative examples it is unclear if this proposal sends efficient price signals to all users. There was mention of an opportunity rate but not enough detail was given to understand what this was or whether energy storage would fit within it.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	RMP Energy Storage's proposal is preferred as it addressed the energy storage tariff treatment issue while considering existing load and intertie participants. This could fit within the proposals 3, 4 and 7 as an opportunity rate provided the opportunity rate be low enough and competitive with intertie rates given the lack of impact on system build.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	The proposal does not directly address all of the CP12 related concerns but would suggest that there are two types of customers: firm an non-firm Those that have been responsive to CP12 in the past can respond to other AESO signals to reduce consumption when required by the system in real time and therefore are responsible for less or no transmission costs. Firm load customers could continue with the current model or one of the bookends. The proposal does not address any firm load tariff issues.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All stakeholders are best served. The RMP proposal allows ES proponents to make contributions to transmission systems costs, to the benefit of all rate payers, without ES proponents causing additional system costs, thereby increasing the

Questions	Stakeholder Comments
	efficient utilization of the grid. Existing load customers see minimal changes to billing. CP12 responsive customers also see minimal changes in their billing unless they can meet the requirements of the opportunity rate. AESO dispatch receives and additional tool in balancing the system.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	a) The AESO is most impacted as the dispatch desk gets another tool to utilize in the form of curtailable load. b) Some load could be concerned with this change during COVID-19 due to potential operational changes resulting from change in dispatch of their CP12 avoidance. This could be mitigated through initial implementation to just new customers with full adoption for existing customers in a few years.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	A) Proposal is that energy storage would participate with an interruptible opportunity rate where the AESO would have ability to reduce or stop the asset from charging under specific system conditions. This enables energy storage to participate similar to interties and generation assets while alleviating the concern of charging during periods of system constraint. b) Yes but RMP's preferred proposal is not exclusive to ES. Any entity that can meet the interruptible opportunity rate requirements can get this rate. This includes interties. This is to ensure there is fair competition in the market.
8. What are the challenges or unresolved questions with your preferred proposal?	The proposal does not address any concerns related to firm load customers. It is unclear if there are any in the rational for tariff redesign but if there are they have not been directly addressed.
9. Additional comments	

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Oct. 22, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Oct. 22, 2020 through Nov. 5, 2020	**Contact:**	Alexandra Dunlop
Comments From:	Suncor Energy Inc.	**Phone:**	403-540-0250
Date:	2020/11/20	**Email**:	aadunlop@suncor.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 5, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Oct. 22, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	The session was well hosted and managed by the AESO and Suncor appreciates the opportunity to participate in this consultation. Suncor believes that proposals 2, 3, 4, 5 and 6 presented in consultation Session 3 do not reflect cost causation and result in cross-subsidization. Suncor continues to question AltaLink's participation as they are not directly affected by the Bulk & Regional Tariff design.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	Suncor advocates for Proposal 1 or 7 as these are the only proposals that reasonably reflect cost-causation.

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Questions	Stakeholder Comments
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Suncor maintains that the objectives outlined by the AESO are inappropriate to evaluate the proposals and are at best nice to have. Any proposal that is adopted must meet the legislative requirements and Proposals 1 and 7 are structured to meet those.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	Proposals 1 and 7 work to the benefit of all customers. They avoid cross-subsidization and send efficient signals to help reduce overall transmission costs.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	As the status quo, Proposal 1 has no impact on stakeholders and therefore also needs no mitigation options. a) Proposal 7 can have a negative impact on current CP responders that may be unable to respond to CRPI but on the flip-side can have a positive impact on customers that find themselves in the opposite position. Proposal 7 reduces cross-subsidization between customers based on billing capacity and therefore positively impacts some while negatively impacting others. b) To mitigate the impact of Proposal 7, the AESO should provide as much information as possible to allow for CRPI response. A transition period could be considered during which CRPI gets blended with a 12-CP component, which would be reduced over time. A separate mitigation option would be to transition from average cost to marginal cost over time.
7. a) How would energy storage resources be treated in your preferred proposal?	a) Energy storage would receive the same treatment as all customers in their rate classes (initially DTS & STS). Suncor supports the development of additional rate classes available to all qualifying customers.

Questions	Stakeholder Comments
b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	b) The proposal does not contain specific elements in relation to energy storage. Any proposed specific element for storage would have to be fair, reasonable and not unduly discriminatory.
8. What are the challenges or unresolved questions with your preferred proposal?	As the current design, there are no issues regarding Proposal 1.Regarding Proposal 7, delineations between regions have to be carefully considered. They need to reflect planning criteria and avoid arbitrary seam issues. The potential for *dominant* regional loads, *i.e.* loads that inherently drive regional peak/regional peak inflow, needs to be considered.
9. Additional comments	<u>Proposal 1:</u> Suncor agrees that tariff changes are premature due to unresolved elements impacting the ISO tariff and that 12-CP is an appropriate methodology for bulk system cost recovery. While 12-CP might not be the most precise methodology it is still a fair reflection of cost responsibility and sends an efficient signal as consumption in peak hours is what drives future transmission build. There is minimal disruption and simplicity as 12-CP is the current framework. <u>Proposal 2:</u> The proposal focused largely on irrelevant issues, for example whether energy storage is an end use customer or whether it provides purported benefits. • Storage that is subject to the tariff is a market participant like any other. • Storage that solely provides services to the system, such as alleviating transmission constraints, may not need to be subject to the tariff. • For any hybrid solutions, the storage provider can recover potential tariff charges incurred in providing a service through the contracted price for the service.

Questions	Stakeholder Comments
	The proposal ultimately suggests that other customers should unfairly and inefficiently cross-subsidize the transmission access for energy storage participants. <u>Proposal 3/4:</u> These proposals are not aligned with legislative objectives as they do not relate to cost causation and do not send a signal to customers to change their behaviour in a way that will avoid future transmission build. The amount loads are consuming in non-coincident peak hours are irrelevant to new transmission build. The proposals would result in large customers unfairly and inefficiently cross-subsidizing small customers. <u>Proposal 5:</u> The proposal, like proposal 2, focuses largely on irrelevant issues. For example, whether storage is economic when paying transmission charges and that energy storage is neither a load nor a generator. Like a load, energy storage requires transmission to draw power from the grid and should pay accordingly. Further, like a generator, some of the power delivered to the grid by energy storage will be lost, which is why storage should pay for losses accordingly. There are no double charges. The proposal is an attempt to justify that other market participants should unfairly and inefficiently cross-subsidize the transmission access for energy storage participants. <u>Proposal 6:</u> This proposal also considers irrelevant issues, for example the anticipated behavior of energy storage participants and the economics of energy storage. Like proposals 2 and 5, proposal 6 asks for unfair and inefficient cross-subsidization of the transmission access for energy storage participants. However, the alternative proposal (slide 9) is taking a step in the right direction. Suncor disagrees with the proponent of Proposal 6 that this type of proposal is

Questions	Stakeholder Comments
	inconsistent with FEOC. There is no justification to treat energy storage different from other loads and generators. However, by designing more flexible rate options for all market participants, there may be opportunities for lower tariff costs for energy storage (and others) based on the level of service received and on the potentially lesser cost impact on the system. Proposal 7: Refer to https://www.aeso.ca/assets/Uploads/Tariff-Design-20201105-Suncor-corrected.pdf

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective/ Description	Proposal 7	Proposal 1	Proposal 3/4	Proposal 2/5/6
Reflect Cost Responsibility Cost recovery is based on the benefit and value transmission customers receive from the existing grid	 The proposal attempts to reflect cost causation as accurately as possible	 The proposal does attempt to reflect cost causation but improvement may be possible	 The proposal does not reflect cost causation	 The proposal is for storage to effectively free ride
Efficient Price Signals Price signal to alter behavior to avoid future transmission build	 The proposal sends a clear signal	 The proposal sends a price signal using average cost where it should be using marginal cost and so the signal is likely too strong or too weak	 The proposal does not send an efficient signal as the amount loads are consuming in non-coincident peak hours are irrelevant to new transmission build	 The proposal is not to send a (proper) price signal to storage
Minimal Disruption Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted	 Since the 12-CPRI signal is a refinement of the 12-CP signal, customer tools and investments maintain their usefulness	 No disruption	 12-CP forecasting investments will be irrelevant however the proposals include grandfathering measures to mitigate some of the disruption	 The proposal would result in unfair cross-subsidization of storage by non-storage customers
Simplicity Simplicity and clear price signals while achieving design objectives	 The AESO needs to provide additional information and customers need to change their analytics or contract for third party services	 Sends a clear price signal to avoid the peaks however this may not have the desired corresponding cost benefit	 Price signal does not achieve design objectives and requires complex implementation involving grandfathering	 While simple, the proposal achieves no design objectives and sends no price signals

Objective/ Description	Proposal 7	Proposal 1	Proposal 3/4	Proposal 2/5/6
Innovation and Flexibility ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers	 Clear cost causation signals incentivize customers to look for efficient ways to lower costs	 Customers can invest to avoid peaks and lower costs, however, this proposal could more accurately reflect cost causation	 This proposal results in unfair cross-subsidization of storage by non-storage customers. This proposal does not provide incentive for customers to innovate to benefit the transmission system	 The proposal shifts 100% of costs associated with storage to other customers and does not provide an incentive for customers to innovate to benefit the transmission system

**** Proposed rate design must fit within current legislation ****

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Legend					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020	through	Nov. 20, 2020	**Contact:**	Akira Yamamoto
Comments From:	TransAlta Corporation			**Phone:**	403-267-7304
Date:	2020/11/20			**Email**:	akira_yamamoto@transalta.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	***The AESO should have adhered to a more typical approach to Cost of Service (COS) to guide this consultation*** The AESO should have planned the stakeholder sessions through a progression through the typical steps of a COS study (i.e. functionalizing, classifying and allocating costs) before asking for alternative proposals. Because the AESO only provide one other way to functionalize cost, no information about cost drivers or alternatives to cost categorization based on cost characteristics (fixed vs. variable), and only the current set of billing determinant and its own preference of regional billing determinants, the alternative proposals were stifled at their outset. We had high expectations about this process with the promise of third-party expertise from Navigant that was to provide expert findings on the tariff designs elsewhere. Instead, the Navigant report provide approaches to allocate costs in industries other than electricity. It would also seem that the AUC had similar expectations of a thorough analysis and review after ordering this exercise again in the 2018 ISO Tariff decision such that the work done may stem the constant rehash

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Questions	Stakeholder Comments
	of issues raised by intervenors about the flaws of the existing rate design in regulatory proceedings While the AESO wisely cut out further use of Navigant, it replaced that third-party consultant's expertise with its own. In fairness, this was done after months of making limited progress in an industry working group model. Unfortunately, these limitations and reactions have come at the cost of time and effort to truly build out analysis that may have helped to assess whether the current model is deficient, where it is deficient, and alternative approaches to remedy those deficiencies. Instead, we are left in place where we are just proposing different ways to allocate costs based on two ways that the AESO has decided it could functionalize costs (bulk and regional or inter- and intra-regional). Unsurprisingly, we have hit a cycle where the output is only as good as the input and we have seen little in the way of new analysis or findings that re-stimulate the discussion. Had we followed a more structured approach that follows a more typical COS study approach, we may have found ourselves in a different position where each stage actually built on the last with objective data and analysis guiding through choices in rate design. The benefit of such an approach is that the whole of the process is not thrown out because progress is made in each step based on the evidence that guide those choices. The problem with the approach we have adopted is that we just run to the end game based on opinions and the vigour of argument and not fact. It seems clear at this stage that none of the stakeholders has the appetite to pursue a change to the current model. Even those that have tabled proposals that are significantly different that the current model, like the Suncor and the CWSSA/UCA/AML/Conoco, are not advocating that these changes be pursued at this time given our present health and economic challenges where there are higher priorities than rate design. 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. More specifically, analyze costs so that they can be categorized and applied to develop expanded Demand Opportunity Service (DOS) rates, build on

Questions	Stakeholder Comments
	the framework based on the *Delivered Cost of Electricity* analysis to develop load retention rates, and create new load attraction rates to stimulate economic development and transmission utilization in Alberta.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	***A subjective evaluation of each of the proposal has little value at this time*** We note that only three of the proposals made at the session were truly bulk and regional tariff design proposals (i.e. Suncor, CCA, CWSSA/UCA/AML/Conoco). ADC/DUC/IPCAA advocated for retaining the existing tariff rate design and, therefore, does not represent a different proposal. We further note that the "proposals" for CanREA/Solas, ESC/Power Advisory, and RMP Energy Storage were only arguments about the tariff treatment for energy storage and did not represent a bulk and regional tariff design proposal – TransAlta cautioned the AESO from combining the matter of energy storage within the bulk and regional tariff design forum because it is a much narrower scope that does not fit well with the broader discussion that should be the focus of bulk and regional tariff design consultation. We continue to recommend that the AESO split out the discussion of energy storage tariff treatment into its own consultation rather than attempt to discuss this within bulk and regional tariff design consultation. The AESO current approach is like trying to design the framework of a house while also trying to pick the interior paint colour of one of the bedrooms – while both topics relate to the house they clearly are not aligned in scope or aim. With respect the bulk and regional tariff proposals, we provide the following comments with respect the aspects of the proposal that we believe warrant further consideration: • ***The tariff design should consider Ramsey pricing*** ADC/DUC/IPCAA noted in their presentation the concept of Ramsey pricing. The current tariff design with its use of 12-CP allows transmission connected load to demonstrate the elasticity of their demand to transmission pricing and creates, albeit potentially unintentionally, outcomes that may be consistent with Ramsey pricing. We find this concept to be compelling rationale for remaining with the 12-CP allocator for bulk system costs.

Questions	Stakeholder Comments
	• ***Marginal cost is a fair proxy for variable (avoidable) cost*** Suncor's and the CCA's proposals discuss the need to determine marginal costs. We agree an analysis that provides information about marginal costs is important as a proxy for categorizations of functionalized costs into their fixed and variable components. We have seen a sparse amount of cost information (which was the functionalization into intra- and inter-regional cost categories) which is too little to inform a discussion on rate design changes. • ***Delineate between demand and non-demand driven costs*** Suncor's proposal was the only proposal that presents an approach of delineating between marginal cost and average (total) costs. This approach aligns with our recommendation in our October 8, 2020 comments to perform a cost analysis that classify costs by demand-driven and other planning factor driven costs. Also as discussed in our comments, applying a coincident peak billing determinant to costs that are not really caused by a customer's contribution to peak demand may be inappropriate and, as Suncor has proposed, the more appropriate cost may be limited to marginal cost. Suncor recommends that the costs that are above marginal cost (which approximate the costs that were driven by other planning factor reasons) should be allocated based upon customer connections. • ***Coincident peak may not be an appropriate billing determinant for costs that are non-demand driven*** The CCA and CWSSA/UCA/AML/Conoco all recommend the replacement of coincident peak with non-coincident peak billing determinants. While the CCA creates a large bucket of costs by adding regional costs to bulk system costs to be allocated through non-coincident peak demand, CWSSA/UCA/AML/Conoco proposal only allocates bulk cost through non-coincident peak demand. Both proposals justify the use of non-coincident peak on the basis that the costs that are not demand driven. • ***Load attraction rates should be considered to create value from underutilized transmission capacity*** CWSSA/UCA/AML/Conoco recommend consideration of load attraction rates and expanded use of Demand Opportunity Service (DOS). We agree. We

Questions	Stakeholder Comments
	should consider mechanisms to attract economic development and load into Alberta particularly as we face challenging economic times during this pandemic and as we recover post-pandemic. • ***Energy storage rates should reflect the condition of interruptibility the resource accepts*** ESC/Power Advisory and RMP Energy Storage propose some allocation of costs to energy storage but at a rate that is lower than the current Demand Transmission Service (DTS) or DOS. ESC/Power Advisory propose that the costs associated with administration of the transmission system be allocated to energy storage. RMP Energy Storage propose a DOS rate that is lower than all of the existing DOS rates to reflect the curtailability of energy storage load. While we are unclear if ESC/Power Advisory is really speaking about costs that are allocated through the trading charge and would be applied to energy storage, but we agree with the concept that energy storage that is entirely interruptible such that it only has access to underutilized transmission capacity should be charged at a rate that does not include the capital cost of the system.
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	***Its too early and there is not enough information yet to express a preference*** TransAlta is not in a position with the information provided to preferred any of the proposals relative to the status quo. As discussed in question 2 above, we see merit in considering aspects of several of the proposals made at the session. We recommend that further work be done to explore the noted aspects and then revisit whether alternative designs should be further explored.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	See our response to question 3 above.
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	***The stakeholders that proposed a rate option were advocating for their own best interest***

Questions	Stakeholder Comments
	• IPCAA/ADC/DUC proposal to maintain the status quo is to ensure that they can continue to keep their transmission costs down with the monthly coincident peak avoidance practices their customers employ. • Suncor's proposal to use customer connections is an attempt to allocate excess transmission build costs away from large billing capacity self-supply customers to other customers. • CCA and CWSAA, UCA, AML and Conoco proposal for the replacement of coincident peak with non-coincident peak allocation clearly benefits residential and small consumers by pushing more costs to industrial customers with high contract amounts. • CanREA and Solas, ESC and Power Advisory, and RMP Energy Storage advocated for minimal or no transmission costs for energy storage. The stakeholders that presented put in effort to advance their concerns by proposing approaches that address them – this necessarily results in trade-offs between those customer group constituents given the zero-sum nature of cost allocation. A cost causation study would be very helpful in determining if there is truly an issue with a misallocation of costs.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	See our response to question 3 above.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	See our responses to question 2 above and question 9 below.
8. What are the challenges or unresolved questions with your preferred proposal?	See our response to question 3 above.

Questions	Stakeholder Comments
9. Additional comments	With respect to the objective of tariff modernization, we recommend that we further explore a framework to introduce: • **Load Retention Rates –** Currently, the closest proxy for a load retention rate are site-specific bypass rates. These rates are based upon the estimated operating and capital cost of transmission facilities that would have otherwise been developed to bypass the transmission system. A load retention rate developed on a general or site-specific basis should be developed and offered to site's that are currently connected to the transmission system but based upon the operating and capital cost of self-supply generating facilities. The rate would be offered to sites on voluntary basis – in other words, the site can choose whether or not to take the rate or develop their own self-supply generation. If offered on a general basis, this rate could use the AESO's *Delivered Cost of Electricity Estimates* information to develop a rate that keeps the cost of grid-supply power at parity with self-supply options. Alternatively, this could be offered on a site-specific basis; however, we do not favour this approach because it is unlikely that the regulatory process for approving such rates would timely enough to be practically implemented. • **Expanded DOS Framework –** The DOS rate framework should be expanded to contemplate rates for non-DTS customers. We view this as most applicable to low load factor customers (that have a small percentage utilization of their total contract capacity) such as energy storage or standby power customers with rates that recognize the interruptibility of the service. The costs that are allocated to such customers should seek to recover the costs that are reasonably caused by those customers. For example, a customer that is fully interruptible with notice less than 7 minutes, as in the case of some energy storage, the costs should not include the capital cost of the system and should only reflective of the variable cost or marginal operating costs on a MWh basis. • **Load Attraction Rates –** As an interim measure, we agree with the use of load attraction rates as a way to compete for economic development in Alberta versus other jurisdictions. We acknowledge that this should ultimately be directed through government policy but also view work done in this tariff

Questions	Stakeholder Comments
	initiative to consider how this could be designed as a proactive approach to support the province. A key criterion for eligibility for these rates would be that these are new or incremental loads customers and the rates that these customers should reflect be based on marginal cost.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid			N/A			N/A	N/A	
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build			N/A			N/A	N/A	
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted			N/A			N/A	N/A	
Simplicity	Simplicity and clear price signals while achieving design objectives			N/A			N/A	N/A	
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers			N/A			N/A	N/A	

**** Proposed rate design must fit within current legislation ****

Legend	Achieves objective	Potentially achieves objective with modification	Partially achieves objective	Potentially partially achieves objective with modification	Does not achieve objective
					

Stakeholder Comment Matrix & Proposal Evaluation – Nov. 5, 2020

Bulk and Regional Tariff Design Stakeholder Engagement Session 3

Period of Comment:	Nov. 5, 2020 through Nov. 20, 2020	**Contact:**	Richard Stout
Comments From:	Alberta Utility Consumer Advocate (UCA)	**Phone:**	604 366 4184
Date:	2020/11/20	**Email**:	roninconsult@live.com

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 evaluation to tariffdesign@aeso.ca by **Nov. 20, 2020**.

The AESO is seeking comments from Stakeholders on Session 3 and the preferred rate design option proposals. Please be as specific as possible with your responses.

Questions	Stakeholder Comments
1. Please comment on Session 3 hosted on Nov. 5, 2020. Was the session valuable? Was there something the AESO could have done to make the session more helpful?	It was helpful to understand the full range of proposals being made for Bulk and Regional Tariff Design especially with regard to emerging issues related to distributed intermittent generation and energy storage facilities. Unfortunately, groups that insisted on making no changes to the 12CP tariff design from the very beginning have not moderated their position and have now upped the ante by rejecting consideration of any tariff change mitigation. In terms of comparing basic tariff and cost allocation options following three years of technical analysis and working group discussions these stakeholder sessions on possible tariff structures are now past the point of diminishing returns. The AESO should instead focus on preparing a Tariff Application for March 2021 rather than June 2021. Remaining disagreements over tariff structure, cost allocations and cost causation can then be more effectively explored and resolved in an evidentiary process.

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Questions	Stakeholder Comments
	There should be no concern related to the impacts of Covid-19 as there will be at least a two year delay before any new tariff would come into effect. With mitigation material bill impacts could be extended at least 5 years further into the future. A better purpose for further stakeholder sessions (such as the session on December 5th) would be for the AESO to share the system expansion driving factors and incremental cost data from transmission planning that was prepared for the transmission tariff working groups that were part of the earlier TDAG process first established to explore the Bulk and regional Tariff issues. Our recollection of those TTWG discussions are consistent with the 2020 Long Term Transmission Plan in that the accommodation of generation rather than load drives transmission costs, and that monthly 12CP load "peak clipping" has no discernable impact on future transmission costs. Therefore, basing load Tariffs on 12CP does not provide any worthwhile price signal in terms of bulk or regional transmission costs. We would appreciate if the next session can focus on cost causation and for the AESO to provide transmission cost data that supports these earlier findings of the TDAG technical working groups on transmission cost causation and quantifies the effects of changing load profiles using hourly system peak price signals.
2. Please complete **Table 1: How Did Each Proposal Achieve the Rate Design Objectives** for each of the proposals presented at Session 3.	Table I has been completed for the parties that made complete tariff proposals. Where a group (such as wind energy and distributed energy storage) have raised technology specific issues that have little bearing on cost causation and fair allocation of bulk and regional tariff costs (such as the "double-double" concern) we have not commented. This is not a dismissal of these newer tariff issues. It is recognition that they deserve separate consideration from the 12CP issue. The proposals of CWSAA, UCL, AML, Conoco and the CCA meet and reasonably balance the design objectives. No proposal using load billing determinants can be said to achieve the objective of providing "Efficient Price Signals". This is because load changes of limited duration (such as monthly one-hour peak clipping) and reasonable magnitude in response to price signals in the transmission tariff have **no discernable effect** on present or future bulk or regional transmission costs. The regional tariff proposal of Suncor would be too disruptive, complex and unstable to be fairly administered, avoid controversy or garner broad customer

Questions	Stakeholder Comments
	support. It is also of dubious legality and would likely default to the Status Quo as Suncor has acknowledged. The proposal of ADC, DUC, IPCAA is the status quo, as it was in 2017 prior to lengthy investigations into bulk and regional transmission cost causation. It clearly satisfies the objective of minimal disruption as there would be no change at all. Equally clearly it does not involve any innovation or flexibility as no changes are considered. The status quo is simpler than the Suncor proposal and other possible regional variations, but it is not nearly as simple as an unratcheted NCP. The status quo proposal does not reflect responsibility for existing transmission costs or causation of future transmission costs. Instead the status quo contains a price mechanism that results in shifting transmission costs to others without any overall cost reduction. This is not a justifiable or efficient price signal. Status quo proponents discussed how transmission peak-clipping amplifies energy market responses (which may represent a distortion of the energy market). The objective in question however is to provide a **transmission** price signal and there is no beneficial transmission price signal in the status quo tariff. In fact, no tariff proposals considered here can be said to provide efficient *transmission* price signals, as changes to load profiles of limited duration or reasonable magnitude have negligible impact on bulk transmission costs. The main transmission cost drivers are generation dispatch and constraint removal considerations that are not a function of practical load billing determinants. The problem with the status quo is that the so-called “price signal” only causes cost shifting, without reducing future transmission costs. This should not be a surprise as 12CP was intended as an allocator of existing vertically integrated generation and transmission costs. It was not intended as a transmission “price signal” and has only recently been mischaracterized as such. ADC, DUC and IPCAA acknowledged that the only salient effect of 12CP is a significant cost shift from responding members to other consumers, which is exactly why they wish to avoid any correction of the tariff that would cause commensurate billing increases to a small group of beneficiaries.

Questions	Stakeholder Comments
3. Which rate design option proposal, including the AESO's bookends A and B presented at Session 2, did you prefer? Why?	We prefer the proposal of CWSAA, UCA, AML, Conoco, assuming it is implemented with a transitional arrangement to mitigate the rate impact on customers that benefit from the status quo for at least the first 5 years.
4. Does your preferred proposal meet all the rate design objectives? If not, what trade-offs does your preferred proposal create between the rate design objectives? Why are those trade-offs appropriate?	Yes. With the understanding that load-facing tariffs cannot provide an "efficient price signal" that could have any significant impact on future bulk or regional transmission costs
5. Which stakeholders are best served (or least impacted) by your preferred proposal? Why?	All stakeholders are best served by the preferred proposal provided a reasonable transition arrangement or rider is included.
6. a) Which stakeholders are most impacted by your preferred proposal? Why? b) What mitigations, if any do you recommend for those who would be impacted by your preferred proposal?	a) All stakeholders are impacted by any tariff including the status quo. Absent a transitional arrangement or rate rider to provide an "off-ramp", those currently benefiting from monthly peak hour load reductions would be adversely impacted if 12CP is replaced by a different allocator. b) An arrangement to limit the billing increase from the date of implementation for at least five years is recommended. This could take many forms from an individually determined amount to reduce the net bill to historical levels, to a generic rate-rider based on the average impact to peak-clipping customers. It is difficult to be any more specific before the proposed new tariff is determined.
7. a) How would energy storage resources be treated in your preferred proposal? b) Does your preferred proposal include specific elements in relation to tariff treatment for energy storage? Why or why not?	a) This is an interesting issue that is sufficiently removed from the Bulk and Regional Tariff discussion to deserve separate discussion and consideration. b) In the preferred proposal it was assumed that energy storage resources arbitrage energy prices in response to the energy market that signals the system need for charge or discharge. It follows that the storage facility then operates as a load when charging and as a generator when discharging, paying the appropriate transmission tariff when operating as a load or generator. Depending on locational capacity and connection costs it was further assumed that the storage facility may qualify for opportunity rates such as DOS rather than pay DTS. All of which could best be discussed and resolved separately from the Bulk and Regional transmission allocation or 12CP issue.

Questions	Stakeholder Comments
8. What are the challenges or unresolved questions with your preferred proposal?	The most significant unresolved issue is the nature of the transitional or mitigation measures required to accommodate any move away from 12CP
9. Additional comments	As in the initial part 1 comments, it would be most helpful if the next session were to focus on determining how future transmission costs could be reduced, including the magnitude of savings and any relationship this might have with the structure of any **load-facing** tariff for use of the bulk and regional transmission system. It would also lead to a more efficient and effective process if the AESO filed its proposed tariff in March 2021 rather than a further 3 month delay until June 2021. The issue was raised by the AUC in 2017 and there has been exhaustive consultations and analysis in the intervening three years. It is clear now that the 12CP allocation does not meet the standards of cost causation or fair cost allocation for bulk and regional transmission costs and should be replaced. Nor does it provide any beneficial price signal. There is no reason to delay further as resolution now requires that positions be supported by evidence that can be tested in a public hearing. With adequate transition and mitigation measures the impact on customers will be delayed well beyond the expected impact of the pandemic and depressed commodity prices.

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

Table 1: How Did Each Proposal Achieve the Rate Design Objectives

Objective	Description	Example	Proposal 1 ADC, DUC and IPCAA	Proposal 2 Energy Storage Canada	Proposal 3 CWSAA, UCA, AML, and Conoco	Proposal 4 CCA	Proposal 5 CanREA	Proposal 6 RMP Energy Storage	Proposal 7 Suncor Energy Inc.
Reflect Cost Responsibility	Cost recovery is based on the benefit and value transmission customers receive from the existing grid								
Efficient Price Signals	Price signal to alter behavior to avoid future transmission build								
Minimal Disruption	Customers that have responded to the 12-CP price signal and invested to reduce transmission costs are minimally disrupted								
Simplicity	Simplicity and clear price signals while achieving design objectives								
Innovation and Flexibility	ISO tariff provides optionality for transmission customers to innovate while not pushing costs to other customers								

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