Stakeholder Comment Matrix – March 14, 2019

Tariff Design for Capacity Market and Bulk and Regional Transmission Cost Allocation – Industry Update (March 13, 2019)

Period of Comment:	March 14, 2019	through	April 10, 2019	**Contact:**	Hao Liu
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Please provide comments relating to the topics listed below in the corresponding box. For convenience, references to slides from the March 13 Industry Update where each topic was discussed are included in the table below. Please include any views about whether the content presented sufficiently addressed the topic, and provide any proposed alternative or additional approaches that should be considered.

Slides	Topic	Stakeholder comments
Tariff Design Consultation Process		
5-11	AESO tariff design consultation approach, scope, and process.	Slide 7 (Terms of Reference) The last bullet. The fair distribution of costs in a manner that provides incentives for economic efficiency (meaning for example in the case of the capacity market cost allocation, incentives to reduce the volume of capacity that needs to be procured, and….). As a general principle, AltaLink supports the attribute of providing incentives for economic efficiency through capacity cost allocation. It is AltaLink's view that assigning a cost weight to different time blocks based on their respective EUE contribution will provide an efficient economic signal as this approach will reflect each time block's contribution for the marginal procurement cost (base case approach). If additional incentives are introduced (through shifting costs from low price time blocks to higher price time blocks) to stimulate additional demand response with an intended objective of reducing the volume of capacity procurement in the future year, it is critical such incentives pass an economic test to demonstrate the incentives yield an economic outcome. An economic test will determine if the costs associated with providing incentives to demand response is greater or less than the benefits of avoided procurement costs associated with the capacity reductions that would otherwise be required in the absence of the demand response stimulated by the incentives. If the costs associated with providing incentives is greater than the benefits, then such an incentive is not economically efficient. It will result in economic losses to the electricity market as a whole in the forms of suboptimal investment and/or forgone opportunity costs associated with demand response operations, which together exceeds the marginal cost of supplying this capacity from generation. In summary a methodology resulting in a reduction of procurement volume is only economically efficient if it passes an economic test as described above.
Capacity Market Cost Allocation Tariff Development Update		

Slides	Topic	Stakeholder comments
15-20	Requirements of *Capacity Market Regulation*	Slide 18 (Costs must be allocated by assigning one weight to each time block) Section 12(5)(c) stipulates the AESO must assign weights corresponding to anticipated contributions that demand for and supply of energy in hours in a time block have on amounts of capacity needed in an obligation period to meet the resource adequacy standard. It is AltaLink's view the weights must be commensurate with EUE contributions as determined by the AESO's RAM model used for calculating the capacity procurement amount required. This means every MWh of EUE should have the same weight in determining the cost allocation, which is consistent with the base case approach described in AltaLink's comments for slides 5-11. Moving away from the base case allocation approach by suggesting more weighting on MWh of EUE in certain hours than others is inconsistent with the DOE's weighted energy approach, unless there is compelling factual based evidence showing such a change will be substantially better than the weighted energy approach in terms of efficiency and fairness.
21-22	Resource adequacy model and unserved energy	
22	Distribution of expected unserved energy throughout the obligation period	
23-27	Bookend scenario analysis	It is AltaLink's understanding that the bookend scenario analysis is to estimate the change of capacity procurement volumes relative to the base case under two bookend scenarios of "Narrow Peak" and "Wide Peak" cases, each defined by a specific profile for adjusting hourly load against the base case load profile to reflect assumed demand response operation. AESO's RAM modeling results indicate that a 300 MW load reduction during peak hours under the "Narrow Peak" case results in a reduction of capacity procurement volume of 37 MW while a 59 MW load reduction during peak hours under the "Wide Peak" case results in an increase of 34 MW. It appears to AltaLink the results of this analysis suggest that a demand response following a "time-of-use" type of profile is not efficient and effective in Alberta's market. Under the "Narrow Peak" case, a 300 MW load reduction during peak hours only yields a 37 MW capacity procurement saving. This result suggests that approximately a 8 MW demand response is required in order to achieve a 1 MW capacity saving, which is very inefficient. The result of the "Wide Peak" case indicates that a 59 MW load reduction during peak hours could potential increase the capacity procurement requirement, suggesting a "time-of-use" type of demand response profile may result in negative, unintended results. The lack of efficiency and effectiveness of a "time-of-use" type of demand response in Alberta should not be a surprise given Alberta's flat load profile and relatively small market size. In Alberta's market, generation outages (both planned and forced) and variation of wind outputs play a significant role in determining EUE distribution and capacity procurement requirement. Given the random nature of generation outages and wind output, a "time-of-use" type of demand response with a pre-determined profile will likely produce inefficient and ineffective results. It is also AltaLink's view the savings predicted by the AESO's RAM model under the "Narrow Peak" case should NOT be relied upon for cost allocation design for several reasons. First, unless AESO has sufficient data on load price elasticity and behavior data, the modeling results based on an assumed load shifting profile is highly unrealistic and unreliable. A deviation from an assumed load shifting profile under the

Slides	Topic	Stakeholder comments
		"Narrow Peak" case could potentially change the outcome predicted by the AESO's RAM model from minimal positive savings to negative losses. Secondly, there are a large set of assumptions beyond the load profile that are used to derive the 37 MW savings which is less than 0.4% of the total capacity procurement required. A change in many modeling assumptions, such as the schedule of planned outages and outage characteristics, could have a material impact on the modeling result. In other words, the accuracy of the modeling is not enough for predicting precise capacity procurement savings that are purposed for the choice of alternative cost allocation weighting options. Finally, the RAM modeling estimates the capacity savings based on an assumed base load profile for a future year with no supply side demand response resources in the capacity market. This assumption is unrealistic given the fact that demand response resources are very active in other capacity markets. When supply side demand response resources are available and offered, their operation will have a material impact on the load profile. As such, any predicted capacity savings based on a load profile without a recognized demand response resource in the capacity market could be overstated. In conclusion, it is AltaLink's view that a time-of-use type of demand response on the load side is inefficient and ineffective. The capacity procurement savings predicted based on a "Narrow Peak" case is not realistic and reliable and therefore should not be used to drive a capacity cost allocation decision.
25	Observations on bookend analysis results	Slide 25 (Resource adequacy model was re-run with load scenarios reflecting bookend changes). Please refer to AltaLink's comments above (Slide 23-27).
26	Objectives for cost allocation rate design	Slide 26 (Bookend analysis led to discussion of the objectives for cost allocation rate design) AltaLink agrees that a cost allocation rate design should provide appropriate price signals that reflect all costs and benefits. However, a reduction of procurement volumes in a future obligation period as a result of load response to price signals should not be a goal by itself unless such a reduction is economically efficient. In other words, the price signals must be efficient in order to incent appropriate load response that will result in overall economic efficiency improvements in meeting capacity requirements. An uneconomic price signal will resulting in sub-optimal investment and operation of load facilities with large opportunity costs associated with load shifting. Together these cost may out weight savings associated with reduced capacity procurement.
28-30	Development of 400-hr on-peak time block	AltaLink suggests the AESO run a RAM scenario to test a "400 Hour On Peak" case following a similar approach it used for the two bookend cases and share these results with stakeholders. This analysis will help stakeholders understand the magnitude, if any, of the capacity procurement savings under a "400 Hour On Peak" case.
31-32	Considerations for weights of time blocks	Slide 31 (Working group examined weights starting with unserved energy in each time block) AltaLink would like to note that 16.16% of EUEs are attributable to the off-peak block. As discussed in AltaLink's comments related to slides 5-11, it is AltaLink's view that every MWh EUE should be given the same weight in cost allocation. Following this logic, the weight that is consistent with the capacity market regulation would be 0.77:0.19:0.04. The ratio of 4:1:0 puts zero weight on the off-peak block and shifts approximately 16% of the capacity costs to the on-peak and mid-peak periods. Slide 32 (Working group provided additional considerations for weights)

Slides	Topic	Stakeholder comments
		First and second bullets. The historical price responsive behavior from one type of load has limited value in designing a capacity cost allocation. First, these price response behavior reflects the operation of price responsive loads in the real time energy market where the prices are unknown ahead of time. In the case of the capacity cost allocation, once the rates are established, they will be fixed for the entire year and known to market participants ahead of time. Secondly, it is not obvious why the rate has to be designed to enable a particular load type. As evidenced in jurisdictions with capacity markets, there are abundant demand response resources participating in the capacity market. During stressed hours of tight system supply and demand, these DR resources will be dispatched to balance supply and demand. Given all loads have the opportunity to participate in the capacity market, it is not clear to AltaLink why additional incentives, in the form of time-of-use type of fixed rates, is required. If the intent is to incent a specific type of load, AltaLink proposes that the AESO consider alternative options to meet this objective to minimize the impact on efficiency and fairness/equity. Please see AltaLink's comments in the Additional Comments section at the end for further details on this topic. Third bullet. AltaLink disagrees costs should not be allocated to an off-peak time block. As slide 31 shows, 16.16% of EUEs occurred in the off-peak time block. As such, an appropriate weight should be assigned to this block to align with the causation principle to achieve efficiencies and minimize cross subsidies. Fifth bullet. It is AltaLink's view that as long as the on-peak rate reflects the contribution of EUEs for an on-peak block, the resulting load response is economic. DR resources are active in all jurisdictions with a capacity market. The economic signal from a cost allocation methodology is only one of the several incentives a demand response participant will face in deciding whether or not to provide demand response by shifting its load pattern. Other incentives include capacity payments, an energy market price, and T&D bill avoidance.
33-34	Potential rate ranges	Slide 34 (Working group has initially focused on weights with ratios of 12:1:0 to 16:1:0) The two ratios the working group focused on, i.e., 12:1:0 and 16:1:0, would produce cost signals that are economically inefficient, will result in cross subsidies, and may create unintended consequences. Specifically: 1. The cost signals for peak hours are not economically efficient. Under these rates, the minimal 37 MW savings assumed based on "Narrow Peak" case would cost $500 - $600/kW as opposed to approximately $135/kW of UCAP from capacity procurement. Customers are better off to simply procure 37 MW from generators instead of incenting 300 MW demand responses whose load shifting operations have a high opportunity cost, resulting in an overall economic loss to customers; 2. The uneconomic cost signals will result in across subsidization. More costs will unfairly be pushed to load customers that cannot provide DR in response to the time-of-use signals in peak hours; and 3. There may be several unintended consequences associated with very high and uneconomic cost signals. First, it is possible the demand response during those hours may be much more than 300 MW. For example, the supply side DR resources could be operated in a way to capture cost savings during those hours. A much larger size DR will further exacerbate the cross subsidization problem with limited or no capacity saving benefits. Secondly, these signals may trigger uneconomic investment, which would otherwise not be viable. For example, it could be economically viable to invest in on-site energy storage with a guaranteed cost saving of $500/MWh for 400 hours a year. Finally it is AltaLink's understanding there seems to be no system in place or a framework being proposed that could be used to measure the effectiveness of the time-of-use signals in producing capacity procurement savings in the future. It is risky for customers to invest in substantial subsidies for an assumed benefit without knowing how to measure the benefit and effectiveness of these subsidies.

Slides	Topic	Stakeholder comments
34	Appropriate range of weight ratios to consider	AltaLink suggests the AESO consider a weighting/Ratio of 0.77:0.19:0.04 for On-Peak, Mid-Peak, and Off-peak blocks, This ratio reflects each time block's EUE contributions and is consistent with the weighted energy approach stipulated in the capacity market regulation.
35-38	Additional considerations for rates	Slide 35 (Working group has identified additional considerations to be examined) Second and third bullet. AltaLink wants to reiterate its view that the objective should not be for rates to be high enough to generate a response that may reduce future capacity requirements. Rather, the objective should be to set rates that result in a load reduction that is economically efficient and where the results are factual and can be transparent to stakeholders. Slide 36 (Working group has identified additional considerations to be examined) If the fourth block is used, AltaLink suggests the AESO determine the weighting based on the EUE contribution from the RAM model, rather than arbitrarily assigning a zero weight to certain hours.
39-43	Terms and conditions considerations	AESO identified in its Capacity Market Design Rationale Document several potential concerns related to self-supply and indicated that it would address these issues in the cost allocation module. The AESO reiterated this position in its submission to the AUC regarding setting issues and priorities for a 6 month review and provisional approval process for the AESO capacity market rules. If the AESO has changed its position and concluded it cannot address the issue as part of the capacity cost allocation process, AltaLink requests the AESO to elaborate how the issue will be dealt with in the future. In the absence of implementing any solutions to address the issue, it is AltaLink's view that the AESO, at a minimum, should track self-supply's grid power consumption during performance hours to better understand the situation.
40	Regulation does not permit penalties or incentives	
42	"Gross up" of POD metered volumes to adjust for distributed generation	AltaLink supports this approach and suggests the AESO should apply a similar approach for aggregators who participate in the capacity market through aggregating small generators and demand side resources.
43	Preferred approach for deferral account true-up	
44	Allocation of capacity market costs to transmission losses	
45	Capacity market cost allocation remaining work	
Update on Bulk and Regional Transmission Cost Allocation		

Slides	Topic	Stakeholder comments
48-51	Bulk and regional transmission cost allocation current work, future work, and next steps	
Additional Comments		
—	Please add any additional comments related to tariff design for allocating capacity market and bulk and regional transmission costs should be considered.	AltaLink recommends the use of an allocation approach with weighting based on EUE contribution i.e. weights based on 0.77:0.19:0.04 If addition DR from the demand side is desirable, consider to procure it through a competitive process similar to the procurement for LSSi where the AESO has the ability to control and operate the DR resource to provide additional reliability at the least cost. This approach is also consistent with the AESO's commitment to develop a demand side response in the next phase of the capacity market development. In AltaLink's view, such an approach would be consistent with the regulation and avoid the potential issues associated with allocation approaches that assign artificially higher cost weights to peak hours. AltaLink would like to point out the potential negative effect associated with a "peaky" allocation, once implemented, could last for several years as it will take time to introduce changes to rectify the problem through the regulatory process.