Bulk and Regional Tariff Design Session 2 Summary (updated)

Bulk and Regional Tariff Design Stakeholder Engagement Session 2 hosted on Sept. 24, 2020

I. Purpose and objectives of the session

The purpose of this session is to re-engage in discussions on the Bulk and Regional Tariff Design. The objectives for this session include:

- Review and gain acceptance on process and approach to complete a rate design
- Understand current state rate design
- Reconfirm tariff rate design objectives and balance of trade-offs
- Understand rate design bookends
- Identify initial implications of rate design bookends
- Understand energy storage treatment options and considerations
- Provide technical clarity around rate design bookends

II. Session agenda

Time	Agenda Item	Presenter
9:00 – 9:15	Welcome, introduction, purpose and session objectives	AESO
9:15 – 10:00	Overview of engagement process • Share overall *2020-2021 Plan for ISO Tariff-Related Activities* • Understand approach and revised engagement schedule for bulk and regional tariff	AESO
10:00 – 10:30	Review current rate design • Review of 12-CP methodology and understand its limitations and implications • Work completed since March 2020	AESO
10:30 – 10:45	Break	
10:45 – 12:20	Introduce and discuss bookends • Overview of bookends • Discuss the emerging ‘sweet spot’ • Discuss initial implications	AESO
12:20 – 12:30	Next steps and Session 3 overview	AESO
12:30 – 1:00	Lunch break	
1:00 – 1:45	Energy Storage treatment options and considerations	AESO
1:45 – 2:30	Technical clarity on rate design bookends	AESO

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Time	Agenda Item	Presenter
	• Details on rate design bookends provided as reference materials • Opportunity to ask questions for technical clarity	

III. Attendees

Company
Alberta Direct Connect Consumers Association (“ADC”)
Alberta Electric System Operator (“AESO”)
Alberta Energy
Alberta Newsprint Company (“ANC”)
Alberta Utilities Commission (“AUC”)
AltaLink Management Ltd.
Arcus Power
BECL and Associates Ltd.
Best Consulting Solutions Inc.
BluEarth Renewables Inc.
Bullfrog
Canada West Ski Areas Association
Canadian Renewable Energy Association (“CanREA”)
Capital Power
Capstone Infrastructure Corporation > Whitecourt Power
Cenovus Energy
Chapman Ventures Inc.
City of Medicine Hat
CNRL
Consumers Coalition of Alberta (“CCA”)
Customized Energy Solutions
DePal Consulting Limited
Department of Energy
Dow Chemical Canada ULC
Eco Renewables Corp.
Elemental Energy
Enbridge

Company
ENMAX Corporation
EPCOR
FortisAlberta Inc.
Guidehouse
Heartland Generation Ltd.
Independent Power Producers Society of Alberta (“IPPSA”)
Industrial Power Consumers Association of Alberta (“IPCAA”)
Lionstooth Energy
Millar Western Forest Products
Nutana Power
Palezieux Regulatory Solutions Inc.
Power Advisory LLC
RMP Energy Storage
Rodan Energy
Solas Energy Consulting Inc.
Suncor Energy Inc.
TC Energy Corporation
The Office of the Utilities Consumer Advocate (“UCA”)
TransAlta Corporation
Turning Point Generation
URICA Asset Optimization
Wolf Midstream
Stack’d Consulting, Inc.
Attendees by phone (added)
14036137624
14036896377
14036302720
14036129248
14033897720
17806419577
14033901368
14033897720

IV. Overall outcomes from the day

Participants generally fell into two camps in response to AESO's rate design bookends:

1. Those that are somewhat supportive of the AESO's bookends and generally agreed that the new rate design could fit within these bookends.
2. Those that are very unsupportive of the AESO's bookends and generally disagree that the bookends are a reasonable starting position for the rate design option discussion.

There were varying levels of understanding of the proposed rate design framework and the bookends.

- Some participants understood and offered alternative points of view on the AESO's conceptual framework and discussed rate-making principles behind various stated objectives in the AESO's approach. This group of parties were mixed in their support for, or against, the AESO's approach, generally suggesting that 'there are alternate ways to look at the challenge.'
- Some participants understood the AESO's conceptual framework and were opposed to a rate design that may result in the projected outcomes of the bookends. The stakeholders with the most disagreement on the outcomes were generally advocacy groups that represented the stakeholder groups that may experience a larger impact as a result of the proposed bookends.
- Some participants were still seeking to understand the AESO's conceptual framework and appeared to be seeking to understand how the proposed bookends would impact their operations (i.e., what is the impact for me?).

With various levels of understanding, and discussion that was both targeted to the approach, as well as the outcomes, it's safe to assume that stakeholders are not currently aligned on a proposed rate design. Further discussion, analysis, and time will be required to converge on an amenable rate design option including considerations for appropriate mitigation.

Stakeholders appeared universally aligned on their belief that the rate design should not negatively impact the already depressed economy.

There were two camps that emerged during the energy storage treatment discussion. One group believed that as a commercial enterprise with standard economic goals, energy storage units should be treated similarly to all other customers. The other camp believed that energy storage units operate with different business purposes and as such, should be given special consideration in the rate design.

V. Discussion summary

The following summarizes the discussion:

Current Rate Design

Some participants generally agreed that the current rate design should be changed but a number of participants are not in agreement that a new rate design is required. There was discussion around whether to keep the Coincident Peak (CP) method and adjust, or to completely replace the CP method. Many participants were concerned about the sunk cost and discussion was had around the best way to address this cost in the new design. It was generally agreed that the new rate design should support a fair, efficient, and openly competitive (FEOC) market.

The AESO's Rate Design Bookends

There was some concern around whether the design objectives proposed by the AESO were aligned with legislative objectives. There was some discussion about the reliability that different customers expect and whether AESO's bookends accounted for differing reliability requirements. Many participants expressed concern with having a rate design within the bookends presented by the AESO and believed that these bookends were not reasonable. It was generally agreed upon that there needed to be modifications, mitigations, and further considerations made to the AESO's bookends and 'sweet spot'.

Energy Storage Treatment Options and Considerations

There was a general division of participants into two camps. One camp supported differential treatment for energy storage units, while the other camp believed that storage units should be held to the same standard as all other customers.

VI. Session highlights

Captured below are the highlights of the questions and discussion on a topic-by-topic basis. For a detailed review of the session, please refer to the session recording, posted at www.aeso.ca.

Topic 1: Review of Current Rate Design

i. Participants generally agree that the current rate design presents limitations:

- The $17B sunk cost is an important driver of the change to the current design, though some participants believe that $17B does not reflect the true cost.
- The majority of participants agree that changes should be made to the current CP method, but that the method should not be fully discarded.

ii. Stakeholder Commentary

- Many of the stakeholders were concerned with the sunk cost of $17B:
    - Focusing on the sunk cost is dangerous as it puts us in a position where we are trying to justify decisions that have already been made.
    - Some of that $17B cost can probably be reduced, but there is real risk the number could go up if we start messing with the tariff. We must be careful we are not driving up the $17B when we are actually trying to drive it down.
    - Do the $2B of efficient cost signals reflect the rough costs of the three system Needs Identification Document (NID) projects forthcoming? Can these projects' main drivers be attributed to load, reliability, or supporting the competitive energy market?
- Thoughts on the 12-CP rate design:
    - CP is a very common rate design in North America to incent efficient behavior.
    - CP is twofold – long-term transformation of how consumers and producers use the grid in the future. Generation fleet looks dramatically different – the consumer is no longer a clear line, increased optionality for how people meet their own needs. We are looking more and more towards fixed rates and where CP might be missing aspects.

- 12-CP is out of date. Need to look for something more appropriate.
- There is a lack of constraint – chicken and egg analysis – do we have a lack of constraint because customers have actually responded the way we want them to?
- The 12-CP method works well during most months – could be changes to the CP method, which could be much less disruptive than completely changing the whole system

iii. AESO Clarification

- Response to sunk cost:
  - The $17B cost is indeed a sunk cost. Investor certainty and stability considerations need to be addressed regarding how the transmission facility owner (TFO) will be impacted.
  - Addressing the sunk cost is an important driver in what might drive the adoption of a change to the current design.
  - Full capital costs are included in the sunk cost of $17B. The book value of the sunk cost is $11B, but the AESO included the full capital costs as illustrative of the comparison between historical costs and future costs.
  - There are always elements of load reliability to every project. Drivers of projects are not always attributable to one customer. The future cost is based on the AESO's latest long-term plan. The main drivers may be attributed to different things but in Alberta, load pays for all system costs on the basis that value is created from facilitating an unconstrained competitive market.
- Response to 12-CP method:
  - Load reduction is happening in the peak months of April, etc. No value provided when consumers change their consumption. 12-CP signal flows through to other investment decisions across the system – i.e. generation, self-supply, or distribution.
  - The AESO is concerned that the 12-CP method is concentrating revenue into a small number of hours and doesn't truly represent the cost of grid connection in the other hours of the year, which is falsely swinging the balance on economic tradeoffs.
  - The price signal is very strong, but the value it creates for the grid is limited. Want to find a better balance between the value of what customers pay and the value of what they get out of the grid.

Topic 2: Introduce and Discuss Bookends

i. Participants generally disagreed with the AESO's presentation of the two options as two realistic bookends:

- Some participants agree that the AESO's bookends will incentivize customers to defect from the grid to seek more economically beneficial options in other jurisdictions.
- Some participants feel that the AESO is proposing a false dichotomy between cost responsibility and cost causation.

- The majority of participants agree that currently, some customers are being funded entirely by others' charges and that this needle must be moved towards increased fairness and open competition.

ii. Stakeholder Commentary

- Many stakeholders were concerned with the design objectives proposed by the AESO:
    - What the AESO called cost responsibility has nothing to do with cost causation. Take it out because it does not reflect cost causation. We have a complete loss of efficiency in Alberta because we are incentivizing behaviour that serves no useful purpose – that is the problem with having this bucket. We should squarely stay in the efficient price signals bucket.
    - Cost responsibility is extremely subjective. How does the AESO actually determine the value that each customer receives from the grid? If the tariff design means they can't be competitive in the market, they will defect from the grid.
    - False dichotomy being proposed between cost responsibility and cost causation, can't isolate cost causation from cost responsibility. Economic recovery must be a main focus as we all have an interest in furthering Alberta's economy.
    - Legislation is clear around the entire market design of the energy-only market – fairness and open competition. We cannot put up competing objectives that take away from the main legislation objectives. Perhaps the design objectives proposed by the AESO are more secondary or tertiary objectives.
        - Other participants disagreed with these sentiments:
            - These objectives are perfectly appropriate and in line with a regulated network.
            - Reflecting cost responsibility and efficient price signals is entirely consistent with the framework.
- Discussion of the level of reliability required by different customers:
    - Efficient price signals – the issue here is you have to plan the system to a uniform level of reliability. Can vary in the tariff by offering a lower/higher reliability at a discount/premium such that customers who don't require such high reliability can pay a lower rate.
    - The value that the network receives from connected customers and connected supplies allows for a better selection of reliability that you require for a site. Two sided – the load customers provide value to the network as much as the AESO does. How does this assist the AESO with cost allocation?
    - If a customer can get off the grid and maintain the same level of reliability, frequency, stability, and do that for less than the cost of being connected to the grid, that is what is more economically efficient for them to do and they will leave.
    - We need to recognize and allow customers to pick their level of reliability. Are there more bubbles we would consider in creating class levels of customers?
- Some stakeholders expressed strong concern regarding the AESO's presentation of bookends A and B for all alternatives:

- Fixed charges should be separated into two categories. There are certain charges that are independent of contract capacity – different enough from MW/month so want to split this category of fixed charges into a separate category of MW/site. This would change the sweet spot framework.
- Much harder to manage the CP charges if we put such a high number on the fixed charges – gives people incentive to have their own onsite generators to reduce the fixed charges. What will be the implications on the contract demands if we use this method? We don't want customers to lower their contract capacity.
- There should be a difference in treatment of fixed and incremental cost – advocates fairness of paying for the value of the grid.
- There is no need to reinvent the wheel in terms of tariff design or cost allocation principles. Looking at a balance of all of these things and work out transition arrangements.
- Whether or not the load increases/reduces, makes little difference. This particular price signal is broken and goes back over 40 years. We need to fix the base tariff rate and set up well for the next 40 years. A focus on a fairer cost allocation approach should be used as the base case.
- These bookends are not realistic, not uniform – people want to know what bucket they're in. Changing our rhetoric – the cross subsidization is not a fair way to look at this. This overbill will hurt and be too much when these participants have been actively managing their usage.
- The AESO should signal that some contribution to the transmission signal is better than none and reject both options and better reflect customers. Do not see these as bookends at all – completely missing the consideration of how the AESO defines the value received from the transmission and this is not the same for every customer.

iii. AESO Clarification

- Design objectives:
  - The objectives we presented are here to help us understand where within the legislation we can place the tariff design.
  - Fair and non-discriminatory treatment is critical and part of the larger legislative framework.
- Reliability:
  - If we allow customers to choose their own level of reliability and pick which bucket of customers they fall into, this will impact what our objectives are. There could be a better balance of cost and efficient price signals.
- Bookend alternatives:
  - In regards to the implications on the contract demand changes as a result of a more fixed charge design: the AESO has not modeled the impact of this yet and this participant feedback is key for considering the impacts of such a tariff design option.
  - Long-term, the AESO wants to move the needle so that some customers are not entirely being funded by other's charges.

- The AESO wants to come up with a rate design that sends signals for future investments and decisions and land on a good outcome there as well as developing mitigations for consumers who are impacted. Finding these mitigations is as important to the AESO as getting the right rate design at this point.
- There is a different view/range of options that we can expect to see from stakeholders in Session 3 that many stakeholders may better agree with.
- Neither of the groups of non-industrial customers are looking to cause undue strain on the industrial customers. The AESO supports the view that these 35 sites could have some kind of grandfathered clause where they will remain at the historic charge.
- There are some good ideas in bookends A and B that are subject to further refinements and modifications. We are looking to stakeholders to tell us if we are on the right track and where we want to move.

Topic 3: Energy Storage Treatment Options and Considerations

i. Participants were generally split into two camps on whether they believe that energy storage companies should receive special consideration in the rate design:

- Some stakeholders believe that a storage unit is a commercial enterprise that should be treated as such and therefore pay the full tariff charges.
- Other stakeholders feel that energy storage has a different business purpose than other transmission customers and that it is deserving of a rate that would make storage more economic.
- Both camps seemed to support the potential implementation of an interruptible tariff rate.

ii. Stakeholder Commentary

- In general, there was clear dissent from stakeholders regarding the AESO's interpretation of and reference to the U of C study:
  - This study has been taken out of context several times by the AESO.
  - The study is missing price volatility. Raising the floor price and decreasing the price ceiling – net value to the system when it is operating in standalone.
- One camp of stakeholders did not support special consideration for energy storage units:
  - Storage is an economic enterprise that makes money for the owner of the storage unit – a commercial enterprise and therefore should be treated as such. Should pay the full tariff charges and the charges should be appropriately low for storage. No rationale for special treatment for storage.
  - We do not distinguish within the transmission system what the customers are doing with their connections so storage should be no different. Absolutely not appropriate to make any customer viable by special economic treatment. It is entirely up to the storage provider to sell whatever service they think they can provide and see if they are competitive.
  - Energy storage should work within the transmission tariff, not to favour any form of end use.

- Another camp did support special consideration for energy storage units:
    - Storage is deserving of a rate that would make it actually economic. Storage is a totally different business so they must be treated differently – they have a completely different business purpose. If we don't have an effective rate for storage, we won't get storage. Export type rate – storage should have this same opportunity.
    - Tariff design right now has no place for storage assets. Need to consider another "category" of service – not to only be limited to energy storage.
- Comments on an interruptible mechanism tariff:
    - An energy storage system operates economically by not drawing upon the electric system when it is economically destructive or suboptimal to do it. Draws when system is not constrained. An interruptible mechanism tariff would be extremely useful to storage and recognize the above attributes.
    - Desire to see more linkage of how energy storage fits into the broader system.
    - There are other benefits of storage that are not reflected without consideration of an interruptible tariff.
    - The energy storage market is a construct. Within the current tariff structure, we look at how energy storage can economically participate to maximize profit. We can do that if you have import/export tariffs or interruptible rate for customers able to be dispatched off by the AESO if there is a transmission constraint. Would be very valuable to customers and benefit energy storage and enable it to provide value to the system without causing additional costs to be incurred on the system.
    - Interruptible tariff has a place as long as it benefits the transmission system

iii. AESO Clarification

- Response to general dissent regarding U of C study:
    - The AESO recognizes that the U of C study may be taken out of context.
    - AESO recognizes that we are not compensating voltage support for anyone. Here, we are talking about the current storage that the AESO does compensate for.
- Interruptible:
    - Storage is here to provide value to the grid (not viewed as a load) or a service behind the fence (could be viewed as a load).

Topic 4: Technical Clarity

Stakeholders were given the opportunity to ask question for technical clarity on the details of the AESO's rate design bookends. Topics that were identified as needing most clarity are listed below:

- Slide 39: Bookend B billing capacity of $3,100/MW
- Slide 42: Cost increase percentages
- Interregional vs. intraregional charges
- Clarity on the proposed 120-CP hours

i. Comments

- For simplicity, clarity, and consistency, the AESO wants to move to an hour peak.
- The numbers on slide 42 are more of an averaging and the AESO does not know how different types of customers would respond to 120-CP. Difficult to determine the spectrum at this point.
- The bookends are considering a zero-energy charge right now.
- Slide 39: $3,100 is the intraregional functionalization of cost – fixed billing. The $1,000 is interregional variable billing based on CP peaks.