

Bulk and Regional Tariff Design Stakeholder Engagement Session 4

December 10, 2020

In accordance with its mandate to operate in the public interest, the AESO will be audio recording this session and making the session recording available to the general public at www.aeso.ca. The accessibility of these discussions is important to ensure the openness and transparency of this AESO process, and to facilitate the participation of stakeholders. Participation in this session is completely voluntary and subject to the terms of this notice.

The collection of personal information by the AESO for this session will be used for the purpose of capturing stakeholder input for the Bulk and Regional Tariff Design engagement sessions. This information is collected in accordance with Section 33(c) of the *Freedom of Information and Protection of Privacy Act*. If you have any questions or concerns regarding how your information will be handled, please contact the Director, Information and Governance Services at 2500, 330 – 5th Avenue S.W., Calgary, Alberta, T2P 0L4, by telephone at 403-539-2528, or by email at privacy@aesocanada.com.

- The AESO's top priorities are the health and well-being of our employees and stakeholders and continuing to meet the electricity needs of all Albertans
- All business meetings with external stakeholders will be via phone or webinar indefinitely (this includes stakeholder engagement sessions)
- Based on stakeholder feedback, the AESO's own security assessment and the use of Zoom for governments, post-secondary institutions and other companies, the AESO has decided for now to continue using Zoom for our stakeholder engagements until such time that face-to-face engagements are allowed
- The AESO will continue to monitor developments and provide updates to our stakeholders as necessary
- For additional information, please visit the AESO website at www.aeso.ca and follow the path Stakeholder Engagement > COVID-19

How to Ask Questions

- All attendees join the webinar in listen-only mode and the host will have attendee cameras disabled and microphones muted
- When asking or typing in a question, please state
 - **The organization you work for and your first and last name**
- Two ways to ask questions if you are accessing the webinar using your computer or smartphone
 - If you would like to ask a question during the Q&A portion, click the icon to raise your hand and the host will see that you have raised your hand. The host will unmute your microphone, you in turn will need to unmute your microphone and then you can ask your question. Your name will appear on the screen but your camera will remain turned off.
 - You can also ask questions by typing them into the Q&A window. Click the “Q&A” button next to “Raise Hand.” You’re able to up-vote questions that have been already asked.

- Using a 2-in-1/PC/MAC Computer
 - Hover your cursor over the bottom area of the Zoom app and the Controls will appear.
 - Click “Raise Hand” and the host will be notified that you would like to ask a question.
 - Click “Lower Hand” to lower it if needed.
 - You can also ask questions by tapping the “Q&A” button and typing them in. You’re able to up-vote questions that have been already asked.
- Using a Smartphone
 - Tap “Raise Hand.” The host will be notified that you’ve raised your hand.
 - Tap “Lower Hand” to lower it if needed.
 - You can also ask questions by tapping the “Q&A” button and typing them in. You’re able to up-vote questions that have been already asked.

- If you are accessing the webinar via conference call
 - If you would like to ask a question during the Q&A portion, on your phone's dial pad, hit *9 and the host will see that you have raised your hand. The host will unmute your microphone, you in turn will need to unmute your microphone by hitting *6 and then you can ask your question. Your number will appear on the screen.
- Phone controls for attendees
 - To raise your hand, on your phone's dial pad, hit *9. The host will be notified that you've raised your hand.
 - To toggle between mute and unmute, on your phone's dial pad, hit *6.

The participation of everyone here is critical to the engagement process. To ensure everyone has the opportunity to participate, we ask you to:

- Listen to understand others' perspectives
- Disagree respectfully
- Balance airtime fairly
- Keep an open mind

Welcome and Introductions

- Session purpose
 - To build shared understanding of themes between the stakeholder rate design proposals and areas of agreement and disagreement
- Session objectives
 - Understand common themes across stakeholder rate design proposals and the AESO rate design bookends
 - Understand areas of agreement and disagreement and why
 - Introduce mitigation conversation to foster/build understanding

Time	Agenda Item	Presenter
9:00 – 9:15	Welcome, introduction, purpose and session objectives	AESO
9:15 – 9:45	Overview of proposals and session feedback <ul style="list-style-type: none"> • Opening remarks • Spectrum of options • Discussion and Q&A 	AESO
9:45 – 10:30	Review themes <ul style="list-style-type: none"> • Cost allocation • Energy storage tariff treatment • Discussion and Q&A 	AESO
10:30 – 11:00	Break	
11:00 – 11:30	Review themes <ul style="list-style-type: none"> • Status quo • Complexity • Discussion and Q&A 	AESO
11:30 – 12:00	Review minimal disruption and mitigation process <ul style="list-style-type: none"> • Mitigation to achieve minimal disruption • Mitigation process • Discussion and Q&A 	AESO
12:00 – 12:15	Review areas of agreement and disagreement <ul style="list-style-type: none"> • Discussion and Q&A 	AESO
12:15 – 12:30	Session close-out and next steps	AESO

Registration (as of Dec. 3, 2020)

- Acestes Power
- Alberta Direct Connect Consumers Association (ADC)
- Alberta Forest Products
- Alberta Newsprint Company (ANC)
- Alberta Utilities Commission (AUC)
- AltaLink Management Ltd.
- Arcus Power
- ATCO Electric Ltd.
- Battle River Power Coop
- BECL and Associates Ltd.
- Best Consulting Solutions Inc.
- BluEarth Renewables
- Canadian Renewable Energy Association (CanREA)
- Capital Power Corporation
- Chapman Ventures Inc.
- Chymko Consulting on behalf of Cities of Red Deer and Lethbridge
- City of Medicine Hat
- DePal Consulting Limited
- Dow Chemical Canada ULC
- Elemental Energy
- Enel NA
- Energy Storage Canada (ESC)
- ENMAX Corporation
- EPCOR Distribution & Transmission Inc.
- FortisAlberta
- Government of Alberta
- Guidehouse
- Heartland Generation Ltd.
- Imperial Oil ExxonMobil Canada
- Invinity Energy Systems
- Industrial Power Consumers Association of Alberta (IPCAA)
- Kanin Energy
- Lionstooth Energy Inc.
- Logan's Clear Vision Consulting Ltd.
- Millar Western Forest Products Ltd
- NextEra Insights Inc.
- NRGCS
- Peters Energy Solutions
- Power Advisory LLC
- RMP Energy Storage
- Rodan Energy
- Signalta Resources Limited
- Suncor Energy Inc.
- TC Energy
- Tesla
- TransAlta Corporation
- Turning Point Generation
- University of Calgary
- Utilities Consumer Advocate (UCA)
- URICA Asset Optimization
- Voltus Energy Canada, Ltd.
- West Fraser

Overview of Engagement Process

OUR ENGAGEMENT PRINCIPLES

Inclusive and Accessible

Strategic and Coordinated

Transparent and Timely

Customized and Meaningful

Overall approach for bulk and regional tariff design stakeholder engagement

The AESO intends to:

- i. Engage with stakeholders to allow stakeholders' needs and interests to be consistently, transparently and meaningfully considered in the development of a rate design proposal for bulk and regional cost recovery;
- ii. Engage with stakeholders regarding the objectives to be examined and evaluated in the development of a rate design proposal for bulk and regional cost recovery;
- iii. Supply stakeholders with analysis tools for bulk and regional cost recovery impact analysis;
- iv. Seek and identify for the Alberta Utilities Commission (AUC) areas of agreement and disagreement in the AESO rate design proposal to accelerate the regulatory approval process; and
- v. File with the AUC an application for bulk and regional rate design by June 2021.

Revised engagement and filing schedule

Session 1 March 13, 2020	Session 2 Sept 24, 2020	Session 3 Nov. 5, 2020	Session 4 Dec. 10, 2020	Session 5 Feb. 25, 2021	Session 6 April 15, 2021
Session objectives	Session objectives	Session objectives	Session objectives	Session objectives	Session objectives
<ul style="list-style-type: none"> • Present rate design options for bulk and regional cost recovery with rate objectives assessment • Provide rate design analysis tools • Review, respond to clarifying questions and collect initial input on options 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Stakeholders to present and discuss alternative rate design options, including energy storage options and implications • Understand which rate design options stakeholders support and why 	<ul style="list-style-type: none"> • Understand common themes across stakeholder rate design proposals and the AESO rate design bookends • Understand areas of agreement and disagreement and why • Introduce mitigation conversation to foster/build understanding 	<ul style="list-style-type: none"> • Present preferred rate design, including energy storage treatment, to stakeholders • Discuss and evaluate mitigation options • Present bill impact summary and assumptions • Provide Bill Impact Tool • Begin to discuss implementation considerations 	<ul style="list-style-type: none"> • Present preferred mitigation path to stakeholders • Present and collect feedback on the emerging application (to be filed by June 2021) • Share and discuss the implications of the rate design proposal and mitigations • Understand outstanding stakeholder concerns

- In-scope
 - Rate design for bulk and regional charges (calculation)
 - Tariff treatment of storage
 - Reduction of associated regulatory requirements (red tape reduction), where applicable
- Out-of-scope
 - Participant-Related Costs for DFOs (Substation Fraction) and DFO Cost Flow-Through
 - 2020 Rates Update
 - Other 2018 GTA Decision and Corresponding Compliance Filing Items

Opening Remarks

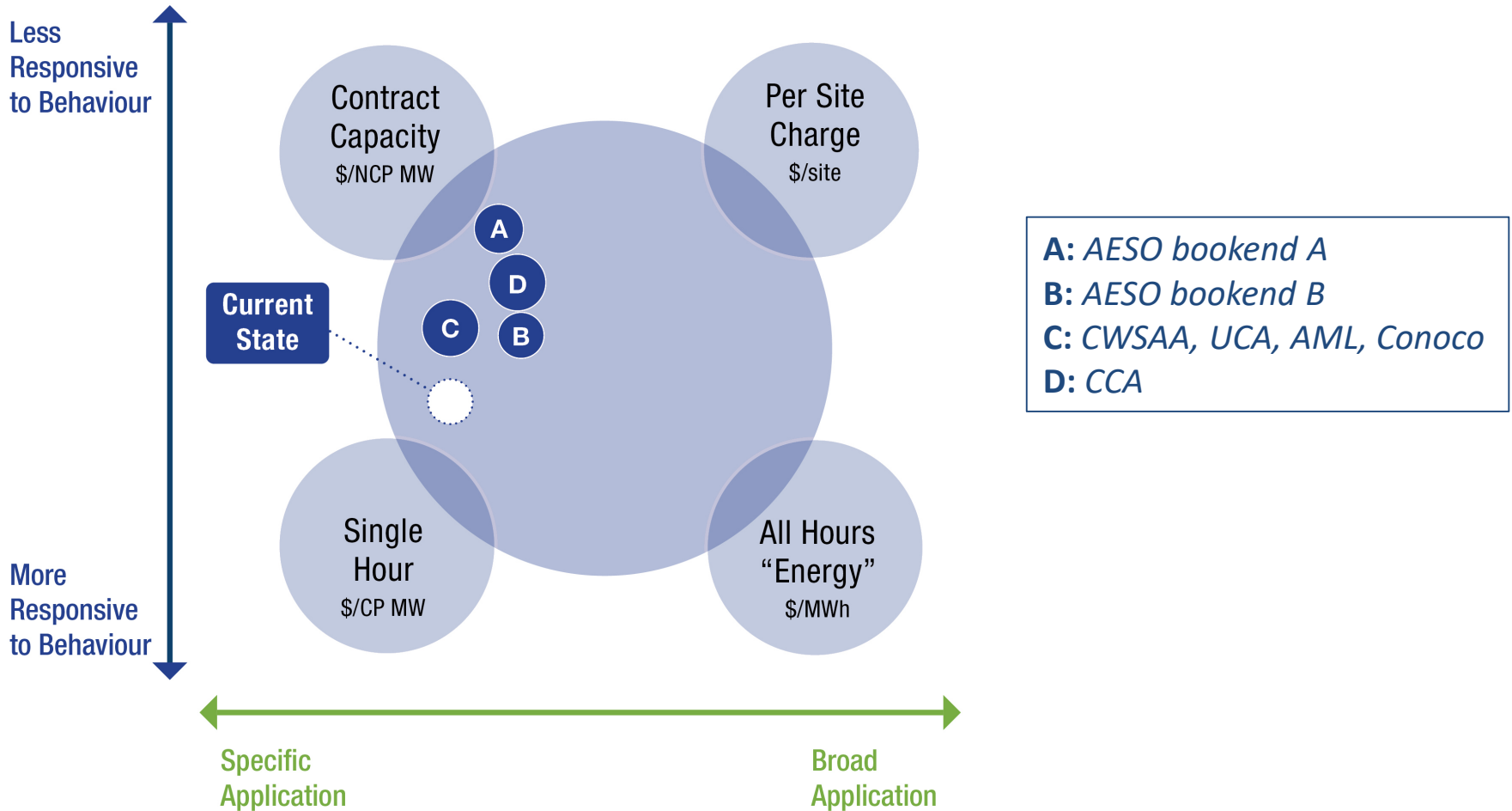
- Your participation to date has been very helpful to the AESO in understanding your perspectives and helping the AESO begin to develop its bulk and regional rate design proposal
- We appreciate the time it takes to develop proposals, prepare for and attend the sessions, as well as provide written feedback sharing your thoughts and insights following the sessions
- Your continued participation in this engagement is critical to help us make a well-informed decision for the benefit of Albertans

- AESO maintains that it is important to progress changes to the bulk and regional rates now
 - Technology and cost trends are influencing consumers decisions in how to meet their electricity needs; these trends are influencing the need for changes to transmission cost allocation
 - Need to take a long term view on how to make transmission cost recovery sustainable
- Will continue to progress in parallel with other engagements and initiatives
 - AESO is involved in a recently initiated Government of Alberta engagement on Self-Supply and Export Policy
 - Cost allocation decisions guiding bulk and regional rate design are important regardless of a policy decision on self-supply and export

Spectrum of options

- Bulk and regional rate design proposals
 - Joint presentation by Alberta Direct Connect Consumers Association (ADC), Dual Use Customers (DUC) and Industrial Power Consumers Association of Alberta (IPCAA)
 - Suncor Energy Inc
 - Consumers Coalition of Alberta (CCA)
 - Joint presentation by Canada West Ski Areas Association (CWSAA), Utilities Consumer Advocate (UCA), AltaLink Management Limited (AML) and Conoco
- Energy storage treatment proposals
 - Energy Storage Canada (ESC) supported by Power Advisory LLC (PA)
 - Canadian Renewable Energy Association (CanREA) supported by Solas Energy Consulting (SEC)
 - RMP Energy Storage

Spectrum of options presented to date



*Suncor proposal not shown as it includes blend of CP, NCP and per site charges

*ADC, IPCAA and DUC joint presentation recommends “current state” (status quo)

Rate design proposals (updated)

Charge	Status Quo	Bookend A – AESO	Bookend B – AESO	Alternative C – AML+	Alternative D – CCA	Suncor
Demand (\$/MW NCP)	Regional: 90%	100%	Intra-regional: 100%	Regional: 90% Bulk: 93% (un-ratcheted NCP)	Monthly NCP: X% Ratcheted NCP: (1-X)%	Marginal Bulk (un-ratcheted) Z%
Peak (System/ Regional) (\$/MW CP)	Bulk: 93%	N/A	Inter-regional: 100%	N/A	N/A	Regional coincident inflows: X% Regional coincident demand: Y%
Energy (\$/MWh)	Bulk: 7% Regional: 10%	N/A	N/A	Bulk: 7% Regional: 10%	N/A	N/A
Customer (\$/site)	N/A	N/A	N/A	N/A	N/A	(1-X-Y-Z)%

CP: Coincident Peak; **NCP:** Non-coincident peak (i.e., billing capacity)

AML+ is CWSAA, UCA, AML and Conoco joint proposal

Ratchets: demand charge can be set monthly, or ratcheted for a period of time

- Monthly (un-ratcheted) demand sets charge based on maximum demand in a given month
- Ratchets set demand charges based on maximum monthly demand for next two years (status quo)

- Some stakeholders suggest that burden of proof is on the AESO to make the case for changes to status quo
 - Now is not the time for change
 - No issues with current rate design
- Other stakeholders identified the following changes relative to status quo
 - Allocate bulk costs to billing capacity (NCP) charge, reduce/remove ratchets (two proposals)
 - Extend from system to regional CP, with additional precision and complexity (one proposal)
 - Calculate marginal cost of transmission savings to set rates for load to respond (two proposals)

Questions?

Themes

- Themes that emerged across stakeholder proposals
 - Themes we are exploring
 - Cost allocation: embedded and marginal approaches
 - Energy storage tariff treatment
 - Themes we are not exploring
 - Continuing status quo
 - Additional complexity
 - Mitigation to achieve minimal disruption

Cost allocation

- **Embedded approach**

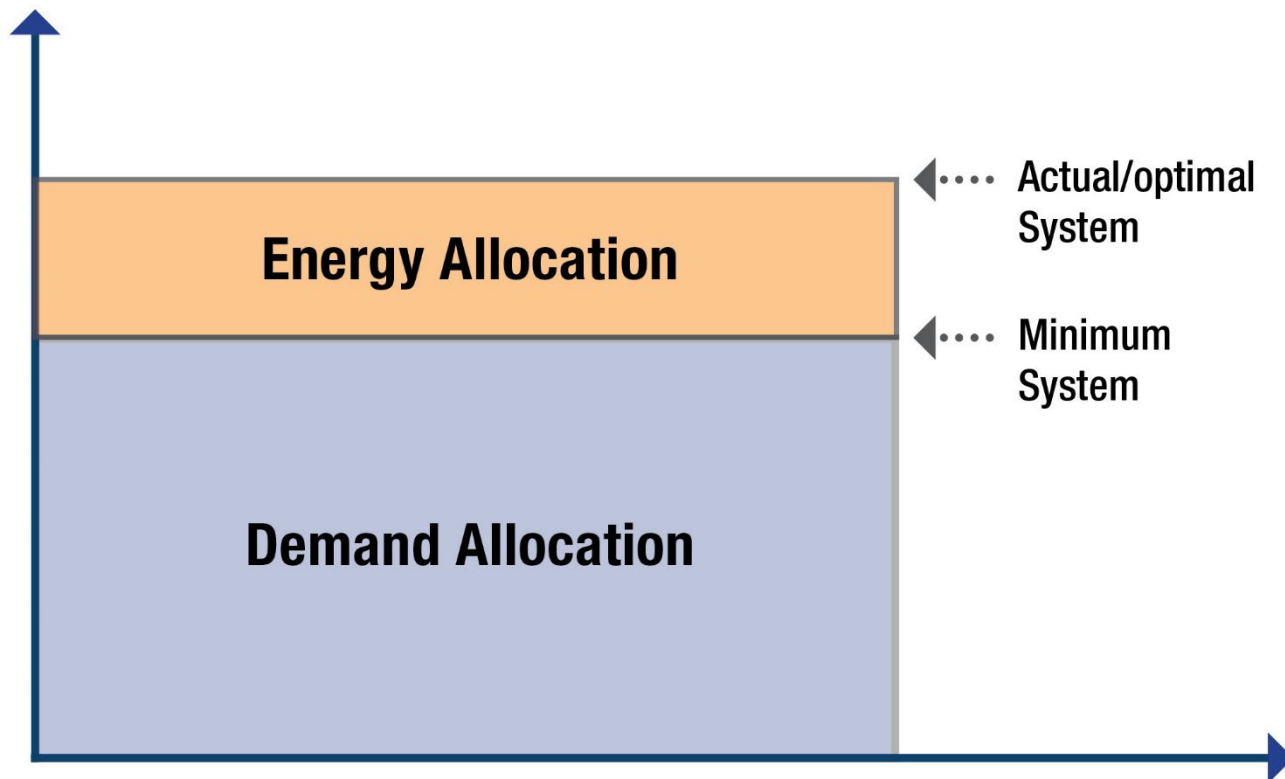
- Answers: “how is planned, current, or future use of the network related to costs of the network?”
- Status quo classification between demand and energy charges is based on embedded approach to cost allocation
 - Developed through London Economics 2014 study for tariff application
 - Updated inputs in 2018, relied on same approach as 2014
 - Stakeholders have asked for an update to the study

- **Marginal / Incremental approach**

- Answers: “what is the incremental cost of supplying one more unit of demand? Or what is the cost savings from reducing demand by one unit?”
- A shift from historical rate design approach
- Incorporated in two stakeholder proposals

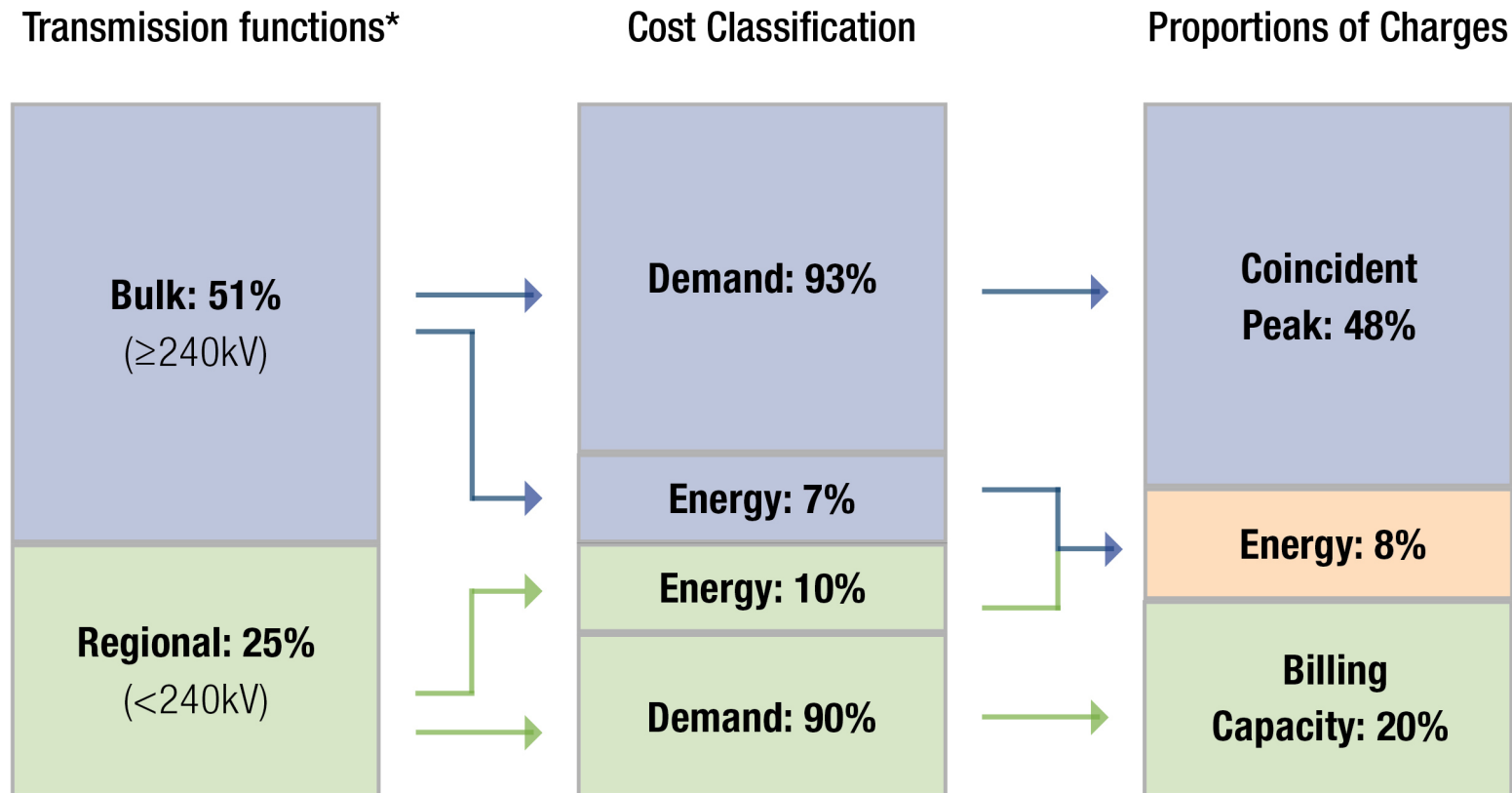
Status quo: How embedded costs are allocated

- Estimates the difference between the “minimum system” needed to serve load and the actual or optimal system
 - Since 2014 allocations have not adjusted to reflect investment or changes in forecasts of future use



Charges based on current cost allocation (updated)

- Portion of costs recovered on each charge is based on voltage and allocation of that portion to cost drivers (demand and energy) using the minimum system approach

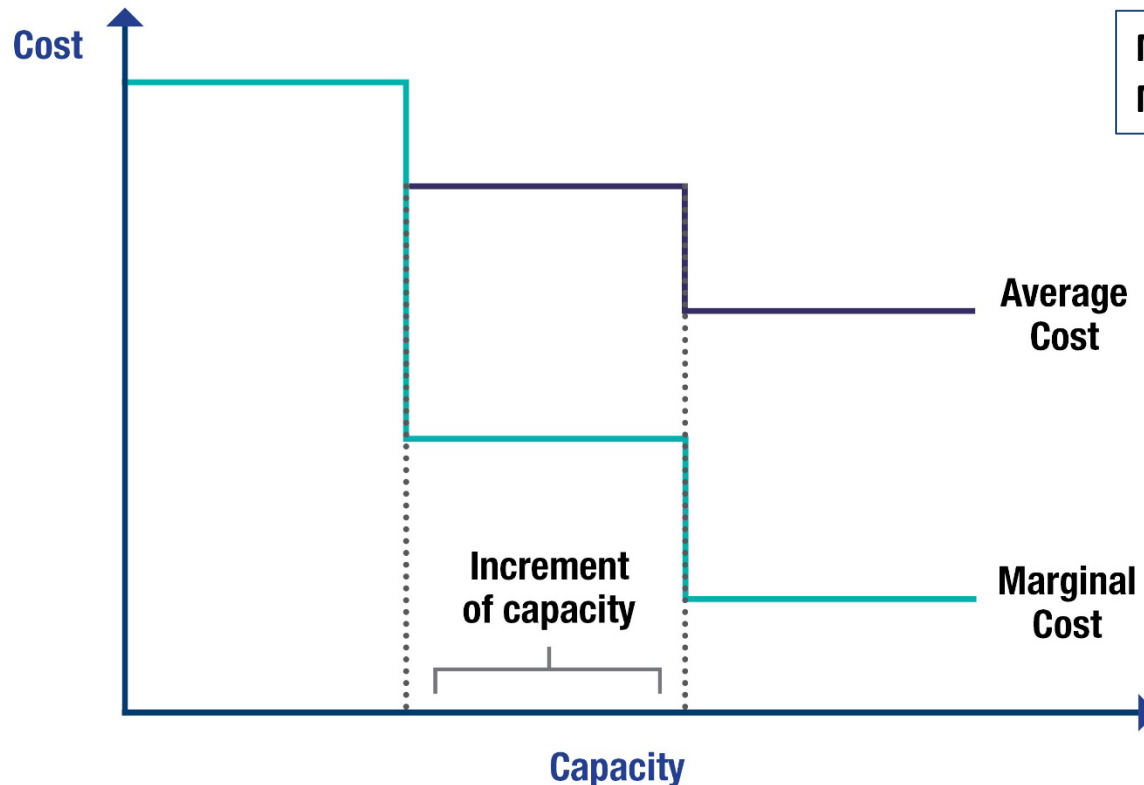


*POD Costs (25%) not shown

- Functional alternatives
 - Voltage (current approach)
 - Intra and Inter regional (e.g., Bookend B)
 - Load or policy drivers (London Economics “special” category in 2014)
- Classification alternatives
 - Minimum system (current approach)
 - Smallest system needed: demand
 - Difference between minimum and optimum: energy
 - Minimum Intercept
 - Zero-intercept of cost curve represents customer component
 - Marginal Cost Approach
 - Average and Excess Approach
 - Average system load factor: energy allocation
 - Remainder (excess): system load above average -> demand

- The fundamental principle of marginal cost pricing is that economic efficiency is served when prices reflect current or future costs — that is, the true value today of the resources that are being used to serve demand rather than historical embedded costs.
 - Advocates for a marginal cost of service study approach work backwards from this pricing concept to suggest that cost allocation should be based around marginal costs as well
 - Critics of marginal cost methods often point out that this economic theory is appropriate only when other conditions are present, including that all other goods are priced based on marginal costs, that there are no barriers to entry or exit from the market and that capital is fungible

- Starting from effective price signal, work backwards to cost recovery
- Marginal Cost: Change in cost to serve one more customer/MW with next increment of capacity
- Difference between marginal and average costs recovered to minimize distortions



Micro: incrementally larger lines
Macro: incremental load growth

Options for marginal calculation (updated)

- Stakeholders have identified the following approaches
 - Long run **incremental** transmission cost divided by long run planned load growth
 - Long run ~6 years
 - Least distortionary cost recovery on customer charge (per site)
- Other approaches to consider
 - **Macro approach**
 - Future planned costs and planned load growth
 - Actual costs and actual growth
 - Portion of transmission projects where load is the driver
 - **Micro approach**
 - Analysis based on cost of “next size up” of transmission facilities (line, substation, transformer) and additional capacity it can serve

Questions?

Energy Storage Tariff Treatment

- I. Charge based on flows
 - DTS for inflows and STS for outflows (current tariff)
- II. No DTS costs while providing certain “Market Services” (FERC Order 841 treatment)
 - Not be charged DTS when dispatched by the AESO to provide certain market services
 - Full DTS charges when not providing those services
- III. Interruptible service with lower rate, since storage can be off if transmission system is stressed
 - Direct physical control by AESO, asset can be tripped off without notice (AESO has certainty)
 - Dispatch control based on bids and offers: Financial incentive to comply (not full certainty)

* Options apply to market assets and not storage as a transmission asset

- CanREA with Solas Energy Consulting
 - Treat storage as transmission facility (substation)
 - Complete tariff exemption; however, an energy storage administration fee be developed to recover storage resource's contribution to the transmission component of AESO's "own costs" related to storage treatment
 - The ISO trading charge would also apply to recover energy market administration
- Energy Storage Canada with Power Advisory LLC
 - Storage be exempt from tariff charges and pay an administration fee
 - Storage be permitted to offer services that direct storage to stop consuming during an inflow constraint and provide transmission must-run (TMR) like services that require discharge during an outflow constraint thereby deferring the need for new transmission investment
- RMP Energy Storage
 - Storage pay only STS for its discharge and pay no wires cost for charging except for station service needs
 - Likes the AESO's interruptible service option; storage would be subject to AESO System Controller directive for relieving transmission constraint
 - But unlike the AESOs interruptible service option, rate is not restricted to areas where constraint are likely to occur.

- Energy storage is unique in that it is not the producer or the end consumer of electric energy, nor is it the transmitter
- Energy storage can participate in Alberta's electricity use-cases by providing
 - Energy Price arbitrage
 - Operating Reserves
 - Non-wires solutions for transmission deferral
- Energy Storage should be treated in a FEOC manner

- Is energy storage a user of the grid or a component of the grid or both?
- Does energy storage use the network for the Alberta specific use-cases?
- Should energy storage pay for inflows and outflows like every other network user or not?
- Should energy storage pay for one or more of administration, operations and maintenance, pod, regional, bulk charges?

Questions?

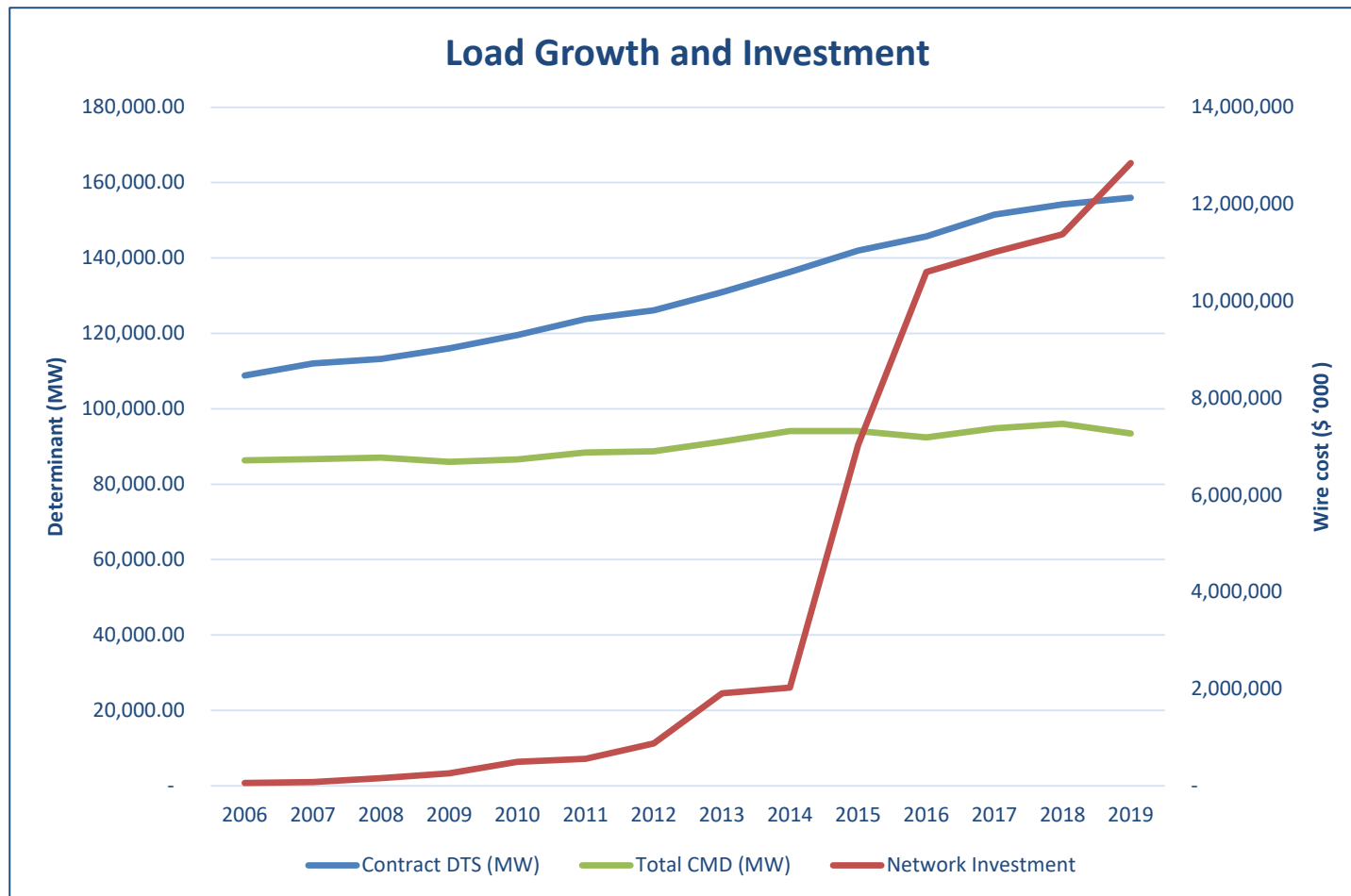
Break

Continuing Status Quo

- TTWG learnings report (Sept. 10, 2019) identified the following drivers of transmission development
 - Bulk power transfers
 - Foothills Area Transmission Development (FATD)
 - Local load supply
 - South and west of Edmonton project
 - Generation integration capability and access
 - Most components of Southern Alberta Transmission Reinforcement (SATR)
 - Both regional load and generation combined
 - Hanna Regional Transmission Development (HRTD) Phase 1
 - Others
 - Intertie restoration

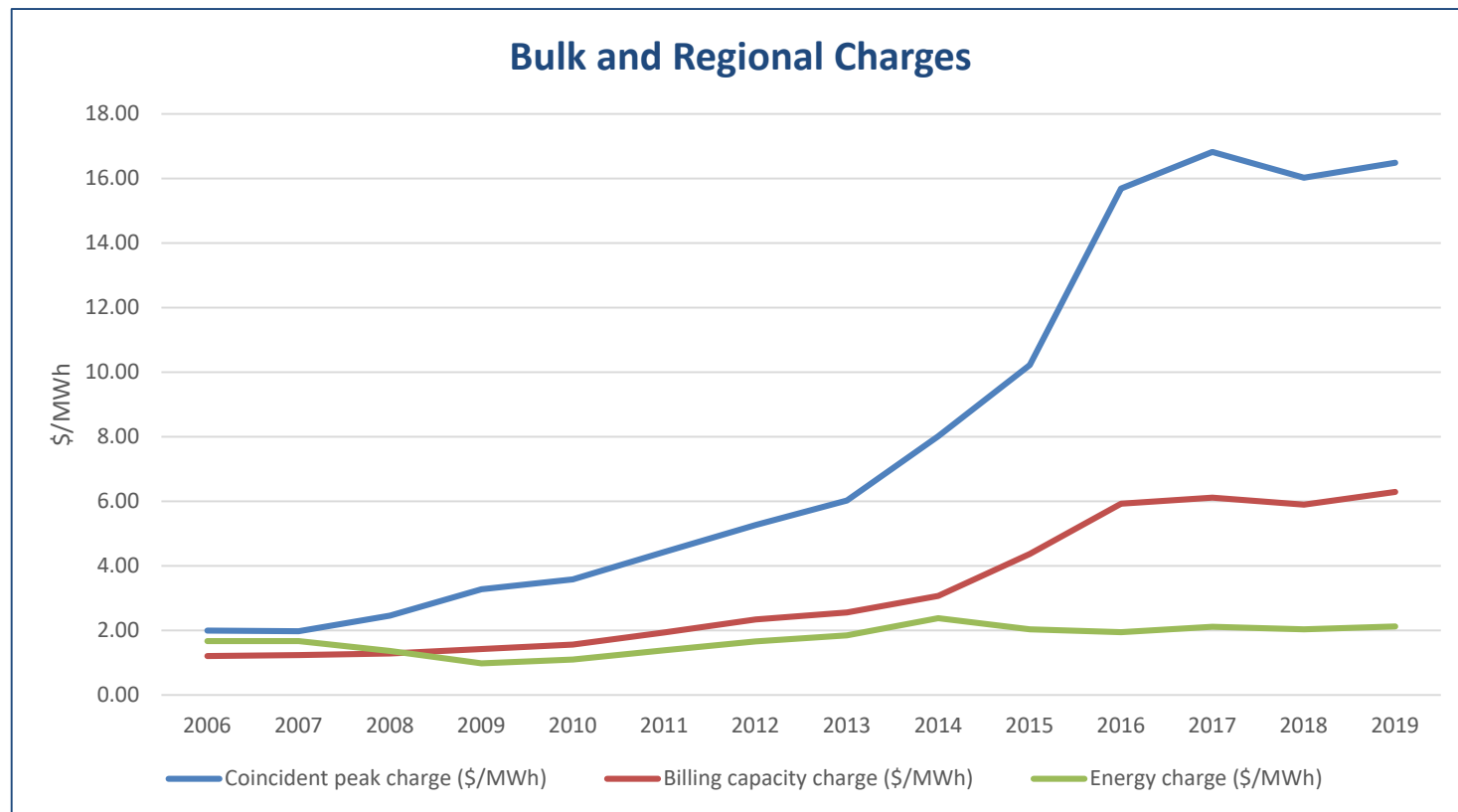
Load growth and transmission costs (updated)

- Load growth since 2006 has increased billing capacity, but coincident metered demand (CMD) has hardly changed
- Over that same time period total transmission costs have climbed



Costs recovered on coincident peak

- Bulk and regional charges (coincident peak, billing capacity, and energy charges) have evolved on different paths since 2006
 - Shown on common units (\$/MWh) for relative comparison



- Recent transmission projects are not only peak demand related
 - Transmission costs 240kV and above are recovered on CP charges, regardless of whether they are peak demand related
 - Transmission costs have grown over past decade because of multiple different drivers, not only peak demand
- Billing determinants beginning to fall
 - Customers have more options to reduce coincident peak charges today because the costs of alternatives have fallen
 - Allocation of costs to coincident peak charge encourages customers to reduce their demand at peak times that is not in proportion to the future transmission cost savings
- Current cost recovery is not sustainable
 - Price signals are counterproductive: increasing as customers use less
 - Total costs are not changing, so some customers responding shifts costs to others, further increasing incentives to respond

Questions?

Additional Complexity

- High correlation between peak demand in region and system
 - Only NW is significantly different than other regions
- Regional constraints are a product of supply and demand; implementation based on demand alone will not reduce transmission constraints
 - For example in NW:
 - When generation in NW is not dispatched, peak load behavior likely contributes to transmission constraint
 - When generation is dispatched, peak load behavior less likely to contribute to transmission constraint
- Increasing number of regions increases implementation complexity
 - For example billing data disputes that require time and energy for the customer and the AESO to resolve
- Constraint of postage stamp pricing limits flexibility

Questions?

Mitigation to achieve minimal disruption

- Minimal disruption means finding a transition for tariff changes that balances two risks
 - Continuation of current tariff incentives risks increasing the cost shifting between customers who can respond to incentives and those who cannot
 - If the tariff changes are so significant they lead some customers to leave the grid, that risks further increasing costs to remaining customers
- Path to change should allow customers to adapt to new tariff
 - For example, phasing-in changes over time to allow customers to gradually adjust their response and manage costs

Type	Category	Description	Examples
Rate Design	Transition Rate Design	Phase in tariff changes	Bulk cost recovery from 90% on 12-CP to 10% over X years
		Adjustment period	- Contract Change grace period - Reset ratchets
	Rate Classes	Set rates by customer size/type/class	- Volume discount - Interruptible/standby rate - Load attraction/retention rate
Bill Adjustment	Transition bill impacts	Bill increase of no more than X% per year for Y years	- Bill credits - Calculated based on current or future billing
	Permanent bill reduction	Bill increase of no more than X%	- Bill credits - Calculated based on current or future billing

Included in stakeholder proposals presented in Session 3 hosted on Nov. 5, 2020

- CCA: declining block prices, transitional bill credits
- AML: permanent bill credits, load attraction and retention rates
- UCA, CWSAA, Conoco: transitional bill credits
- ADC, IPCAA, DUC: n/a

- Depending on rate design a combination of options are likely to best achieve objectives
 - Prefer rate design mitigations over bill adjustments
 - Mitigation may not be symmetric for all customers
- For example:
 - Rate design transitions to goal state over five years
 - Remaining concern: customer goes out of business in five years instead of in one year
 - Assess rate impacts
 - Consider and model addition of rate classes
 - Evaluate additional rate mitigation
- Mitigation path depends on rate design choices

Engagement plan

Session order	Session objectives
Session 4	<ul style="list-style-type: none"> • Understand common themes and areas of agreement/disagreement • Introduce mitigation conversation to foster/build understanding • Present mitigation schedule and rationale to stakeholders
Stakeholder Comment Matrix Session 4	<ul style="list-style-type: none"> • Seek written feedback on mitigation option preference and mitigation process • Seek written feedback on cost allocation approaches and areas of agreement/disagreement
Session 5	<ul style="list-style-type: none"> • Present preferred rate design, including energy storage treatment, to stakeholders • Discuss and evaluate mitigation options • Present bill impact summary and assumptions • Provide Bill Impact Tool • Begin to discuss implementation considerations
Additional Technical Session (new)	<ul style="list-style-type: none"> • Provide information to stakeholders about how to use the Bill Impact Tool and respond to stakeholder questions
Potential One-on-One Meetings (new)	<ul style="list-style-type: none"> • Provide the opportunity to respond to stakeholder questions about how to use the Bill Impact Tool in a one-on-one setting
Stakeholder Comment Matrix Session 5	<ul style="list-style-type: none"> • Seek written feedback on the mitigation options presented at Session 5 • Seek written feedback on the preferred rate design
Session 6	<ul style="list-style-type: none"> • Present preferred mitigation path to stakeholders • Present and collect feedback on the application (to be filed by June 2021) • Share and discuss the implications of the rate design proposal and mitigation paths • Understand outstanding stakeholder concerns
Stakeholder Comment Matrix Session 6	<ul style="list-style-type: none"> • Seek written stakeholder agreement/disagreement with preferred mitigation path • Seek written feedback on the application and outstanding stakeholder concerns

- The AESO will inform all stakeholders of the mitigation option(s) and seek feedback on those options from all stakeholders
- The Bill Impact Tool will assist all impacted stakeholders in assessing the mitigation option(s) and providing meaningful feedback to the AESO
- The AESO will limit one-on-one discussions to helping stakeholders use the Bill Impact Tool
- The AESO will seek feedback on whether stakeholders agree or disagree with the AESO's preferred mitigation path, and will provide this information to the Commission for the purpose of improving regulatory efficiency

Questions?

Areas of Agreement and Disagreement

- Efficient Price Signals
 - Price signals matter
 - Tariff charges provide incentives for customer behavior
- Cost Responsibility
 - Recognize that more than just load behavior drives transmission development
 - We are dealing with an evolving system
 - Current and future use may differ from what was originally planned
- Minimal Disruption
 - Transmission costs have risen
 - Tariff charges are more important now than ever before
 - Minimize disruption, mitigate rate shock
 - It is not in anyone's interest to reduce the number of ratepayers

- Efficient Price Signals
 - Are status quo price signals efficient?
 - Price signals in tariff have reduced the cost of energy to other load
 - Are price signals forward looking?
 - Price signals are efficient to the extent changes in customer behavior reduce the need for future transmission costs
- Cost Responsibility
 - Is the primary objective cost causation, or cost responsibility?
 - Does the initial rate design still achieve goal of cost causation since transmission costs have risen and load behaviour has not influenced those costs?
- Minimal Disruption
 - Now is not the time for change or time to stop the bleeding?
 - Economic climate, policy uncertainty, change impacts a few very negatively and many slightly positively
 - Does rate mitigation need to be permanent or will customers adapt if temporary?

Next Steps and Session 5 Overview

- We want to thank you for attending the Bulk and Regional Tariff Design Stakeholder Engagement Session 4 and we would appreciate your feedback on the session
- To limit stakeholder fatigue, we are modifying how we collect your initial feedback on the session by conducting a Zoom poll during the session rather than emailing you a short session survey following the session. The questions remain the same
- We value stakeholder feedback and we invite all interested stakeholders to provide their input on this session via the questions set out in the **Stakeholder Comment Matrix Tariff Session 4 on or before Jan. 12, 2020**. The matrix is available on our website at www.aeso.ca
 - Path: Stakeholder Engagement > Rules, Standards and Tariff Consultations > Tariff (filter) > Bulk and Regional Tariff Design > Dec. 10, 2020 Session 4

- The next session (Session 5) will be hosted on **Feb. 25, 2021**. Registration details will be available in January.
- Session 5 purpose
 - To present and discuss the preferred rate design, including energy storage treatment, and mitigation options to continue to build shared understanding and seek feedback from stakeholders
- Session 5 objectives
 - Present the preferred rate design, including energy storage treatment
 - Discuss and evaluate mitigation options
 - Present bill impact summary and assumptions
 - Provide Bill Impact Tool
 - Begin to discuss implementation considerations

Questions?



- **Twitter:** @theAESO
- **Email:** tariffdesign@aeso.ca
- **Website:** www.aeso.ca
- Subscribe to our stakeholder newsletter

Thank you

List of Acronyms

- ADC = Alberta Direct Connect Consumers Association
- AML = AltaLink Management Limited
- AUC or Commission = Alberta Utilities Commission
- CanREA = Canadian Renewable Energy Association
- CCA = Consumers Coalition of Alberta
- CMD = Coincident Metered Demand
- CP = Coincident Peak
- CWSAA = Canada West Ski Areas Association
- DCG = Distribution Connected Generation
- DFO = Distribution Facility Owner
- DTS = Demand Transmission Service
- DUC = Dual Use Customers
- ESC = Energy Storage Canada
- FATD = Foothills Area Transmission Development
- FEOC = Fair, Efficient, and Openly Competitive
- GTA = General Tariff Application

- HRTD = Hanna Regional Transmission Development
- IPCAA = Industrial Power Consumers Association of Alberta
- NCP = Non-coincident Peak (i.e., billing capacity)
- **RAP = Regulatory Assistance Project**
- SATR = Southern Alberta Transmission Reinforcement
- STS = Rate Supply Transmission Service
- TMR = Transmission Must-run
- TTWG = Transmission Tariff Working Group
- UCA = Utilities Consumer Advocate