

# Bulk and Regional Tariff Design Technical Information Session II

March 31, 2021

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  - Click “Raise Hand” and the host will be notified that you would like to ask a question. 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.
  - 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.
- If you are accessing the webinar via conference call
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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
  - The purpose of this technical information session is to help ratepayers understand the impacts of the preferred rate design presented by the AESO on March 25, 2021 on their invoices
- Session objectives
  - Review how to use the Bill Impact Tool in order to:
    - Enable stakeholders to evaluate the impacts of the rate design and mitigation on their sites;
    - Enable stakeholders to assess the materiality of changes to their invoices
  - Respond to stakeholder questions

Time	Agenda Item	Presenter
9:00 – 9:10	Welcome, introduction, purpose and session objectives	AESO
9:10 – 9:45	Walk through how to use the Bill Impact Tool, illustrating <ul style="list-style-type: none"><li>• How to evaluate the impacts of the rate design and mitigation on their sites;</li><li>• How to assess the materiality of changes to their invoices; and</li><li>• How to analyze the impact of future changes to site load</li></ul>	AESO
9:45 – 10:45	Q&A	All
10:45 – 11:00	Break	
11:00 – 11:50	Q&A	All
11:50 – 12:00	Session close-out and next steps	AESO



# Registrants (as of March 29, 2021)

- Acestes Power
- Alberta Direct Connect Consumers Association (ADC)
- Alberta Newsprint Company (ANC)
- Alberta Utilities Commission (AUC)
- AltaLink Management Ltd.
- ASCENT Energy Partners Ltd.
- ATCO Electric
- BECL and Associates Ltd.
- Best Consulting Solutions Inc.
- BluEarth Renewables Inc.
- Boost Energy Ventures
- Canadian Renewable Energy Association (CanREA)
- Capital Power Corporation
- Cenovus Energy
- Chapman Ventures Inc.
- Chymko Consulting (Cities of Red Deer and Lethbridge)
- City of Lethbridge
- City of Medicine Hat
- City of Red Deer
- CNRL
- Consumers Coalition of Alberta (CCA)
- Customized Energy Solutions
- CWSAA
- DePal Consulting Limited
- Dow Chemical Canada ULC
- Dual Use Customers
- EDF Renewables
- Enbridge
- ENMAX
- EnPowered
- EPCOR Distribution & Transmission Inc.
- ERCO Worldwide
- FortisAlberta Inc.
- Government of Alberta
- Guidehouse Inc.
- Heartland Generation Ltd.
- Imperial Oil
- Inter Pipeline
- Invinity Energy Systems
- Industrial Power Consumers Association of Alberta (IPCAA)
- Kalina Distributed Power Ltd.
- Lafarge Canada Inc.
- Lionstooth Energy Inc.
- Matt Ayres Consulting
- Millar Western Forest Products Ltd.
- NextEra Insights Inc.
- NRGCS
- Power Advisory LLC
- Prairie Sky Strategy
- Quality Urban Energy Systems of Tomorrow (QUEST)
- RMP Energy Storage Inc.
- Rodan Energy Solutions
- Signalta Resources Limited
- Solas Energy Consulting Inc.
- Suncor Energy Inc.
- The Office of the Utilities Consumer Advocate (UCA)
- TC Energy
- Trans Mountain Pipeline LP
- TransAlta Corporation
- URICA Asset Optimization
- VIDYA Knowledge Systems
- Voltus Energy Canada Ltd.
- Weyerhaeuser
- Wolf Midstream Inc.

# Overview of Engagement Process

The background of the slide is a blue-tinted photograph of two hands shaking in a firm grip. The hands are positioned in the center-left of the frame. The background also features a faint, geometric network of lines and dots, suggesting a digital or interconnected theme. The overall color palette is monochromatic, dominated by various shades of blue.

*OUR ENGAGEMENT PRINCIPLES*

**Inclusive and Accessible**

**Strategic and Coordinated**

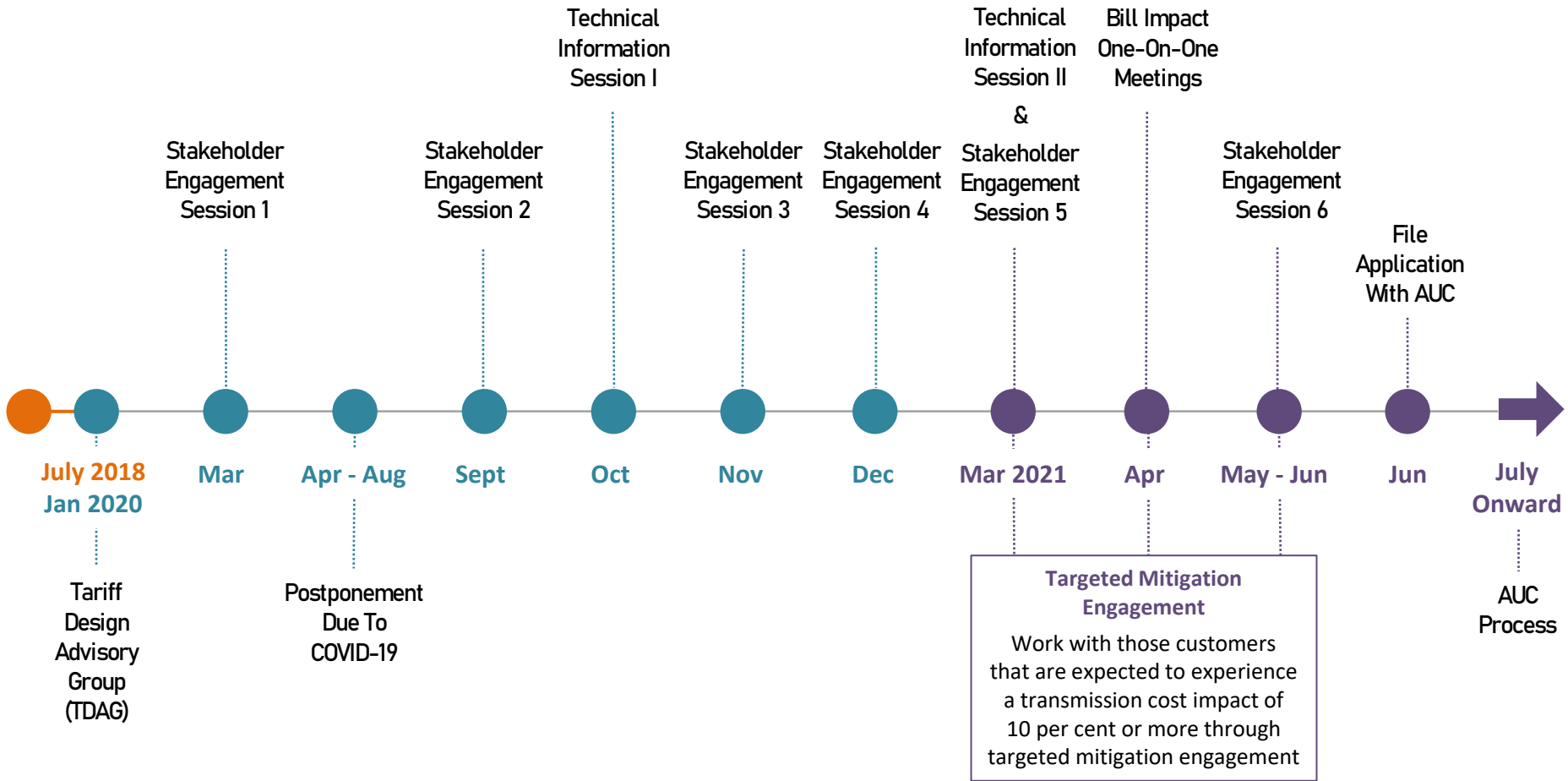
**Transparent and Timely**

**Customized and Meaningful**

The AESO's stakeholder engagement will:

- Ensure that stakeholders' needs and interests are consistently, transparently and meaningfully considered in the development of a rate design proposal for bulk and regional cost recovery;
- Provide clear objectives to be examined and evaluated in the development of a rate design proposal for bulk and regional cost recovery;
- Assist stakeholders in understanding and evaluating the AESO's preferred rate design;
- Supply stakeholders with tools that will allow them to consider and assess the impact of the AESO's preferred rate design; and
- Identify areas of alignment in order to support an efficient regulatory process.

# Stakeholder engagement timeline



# Bill Impact Assumptions

- Calculate the impact of changes in bills attributable to Rate DTS (Demand Transmission Service) changes
  - Proposed and current rates were applied to the same billing determinants (for the 2019 test year) at each point-of-delivery (POD) for the bulk and regional charges
    - Transmission bill for each POD includes POD costs, Operating Reserve (OR) charges and other tariff charges
    - Total bill for each POD includes transmission bill and energy commodity costs
  - Estimated per cent impact based on change in transmission costs and total bill by POD under current and proposed tariff
  - Assumed 12-CP consumption maintained at current levels (i.e., no retroactive averages)
- Bills for an individual Rate DTS point-of-delivery will be different from estimates depending on actual demand and usage at the point-of-delivery and actual effective rates

# Test year rate calculations methodology

	2019 Test Year	Preferred Rate Design
Revenue requirement (allocated to load)	\$2,269.6 million	
2019 actual billing determinants	93,507.6 MW - months CMD 157,948.9 MW - months billing capacity 59,687.8 GWh	
Coincident metered demand (CMD)	47%	29%
Billing capacity	7%	17%
Energy	22%	31%
POD	24%	24%



# Implementation considerations

## (Session 5 - Slide 79)

- To support the transition, the AESO will provide a forecast of rates in advance of them coming into effect
- The AESO will reduce red tape through administrative changes to rate sheets
- Updates to underlying data and transparent information
  - The AESO will propose to update the data underlying the cost allocations every five years
    - Calculations underlying the demand and energy allocations
    - Calculations underlying the allocations of demand to bulk and regional categories
  - Timing of highest coincident metered demand to hourly from 15-minute interval
    - Provides participants with more transparent information
    - Simpler calculation aligns with public information
    - More appropriately reflects information used for transmission planning

# Bill Impact Tool v0.3

- The Bill Impact Tool has been posted to allow stakeholders to calculate the estimated bill impact for their sites
- You can find the Bill Impact Tool v0.3 on the AESO website at [www.aeso.ca](http://www.aeso.ca)
  - Path: Stakeholder Engagement > Rules, standards and tariff consultations > Tariff (filter) > Bulk and Regional Tariff Design > **March 31, 2021 Technical Information Session II** and/or **March 25, 2021 Session 5**
- We have also posted a Bill Impact Tool v0.3 with Sample Data to allow you to follow along for today's session
- Feedback from today's session will be considered for potential improvements to the tool

- Our Bill Impact Tool uses an Excel spreadsheet to analyze and compare five years of historical load data to determine an annual transmission bill under the current ISO tariff and preferred rate design
- This Bill Impact Tool is not authoritative and is for information purposes only and intended to provide guidance. In the event of any discrepancy between this tool and any authoritative document in effect, the authoritative document governs.
  - It is intended to allow ratepayers to assess historical annual impact with respect to the AESO's preferred bulk and regional tariff rate design (Preferred Rate Design) presented at the AESO's Stakeholder Session 5 on March 25, 2021
  - It will allow a market participant to estimate the annual historical charges for system access service under the AESO's Preferred Rate Design, including Rate DTS, *Demand Transmission Service*, and Rate PSC, *Primary Service Credit*.

- Billing determinants in annual format (sum of monthly billing determinants) along with:
  - Historical charges for energy settlement, operating reserve charges, transmission constraint rebalancing charge, voltage control charges, and other system support services charge to allow for site-specific \$/MWh rate for those charges
  - Rate PSC (Primary Service Credit) is applied to sites who do not utilize transmission facility owner (TFO) facilities. This calculation is necessary when reviewing impact percentages.
- The AESO continues to provide the data directly from AESO's billing system for AESO transmission-connected customers
  - For DFO transmission-connected customers, approval from the DFO is required;
  - This tool will not work for assessing bill impact for DFO distribution-connected customers.

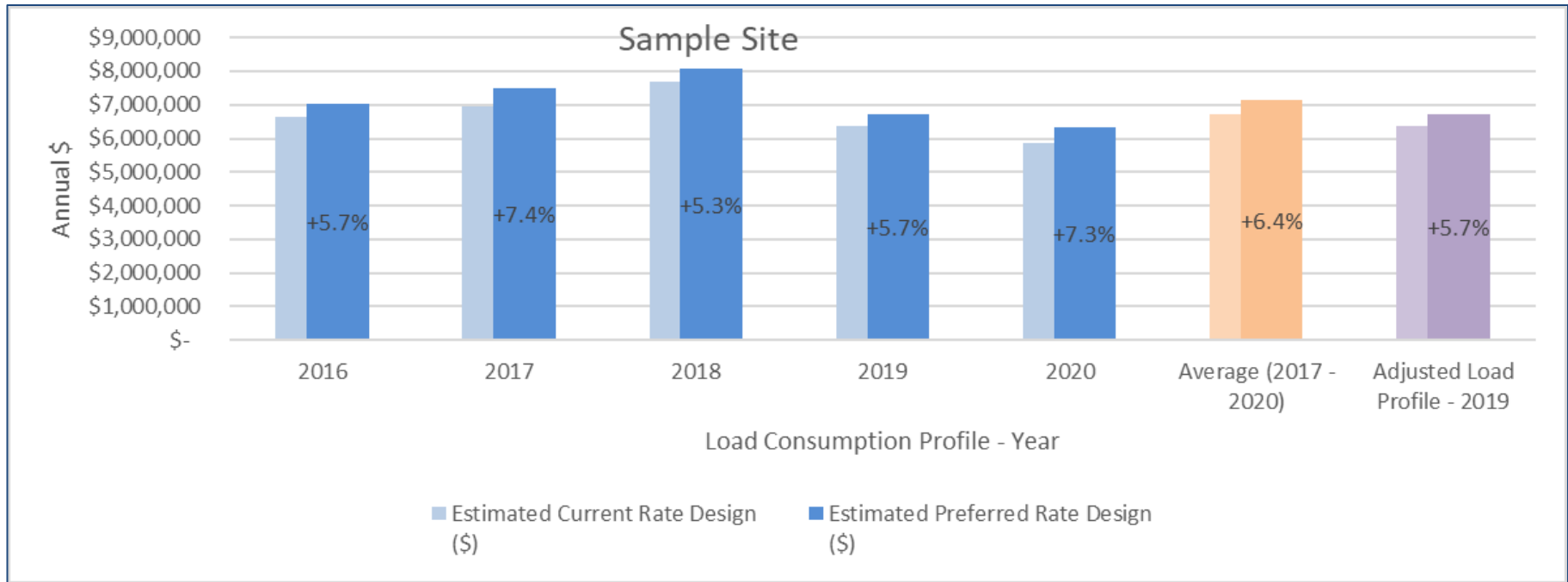
- Provides 5-year summary information plus impact after any adjustments
  - Site information, including an evaluation of transmission costs impact:

Market Participant:	<b>DFO</b>
Site Description:	<b>Sample Site</b>
Account ID:	<b>1000XXXXX</b>
Date:	March 28, 2021

Threshold for targeted mitigation engagement*:	
2019 Load Profile Year:	No
2017-2020 Average:	No

\*Sites with greater than 10% impact (estimated transmission costs) will be invited to targeted mitigation engagement

- Transmission costs graph:



- Transmission costs year by year summary:

## Estimated Transmission Costs

Load Profile Year	Contract Capacity (MW)	Annual Billing Capacity (MW)	Annual Coincident Peak (MW)	Coincidence Factor (%)	Annual Energy (MWh)	Load Factor (%)	Estimated Current Rate Design (\$)	Estimated Preferred Rate Design (\$)	Estimated Impact (\$)
2016	43.4	469	300	83.7%	237,025	90.4%	\$ 6,635,891	\$ 7,016,289	\$ 380,398
2017	43.4	469	315	79.5%	261,944	90.4%	\$ 6,965,785	\$ 7,480,937	\$ 515,152
2018	43.4	469	321	82.4%	251,907	88.4%	\$ 7,674,997	\$ 8,085,251	\$ 410,254
2019	43.4	469	247	73.3%	207,360	84.3%	\$ 6,353,887	\$ 6,713,093	\$ 359,206
2020	43.4	469	214	67.9%	199,593	86.4%	\$ 5,883,626	\$ 6,314,913	\$ 431,287
<b>Average (2017 - 2020)</b>							\$ 6,719,574	\$ 7,148,548	\$ 428,975

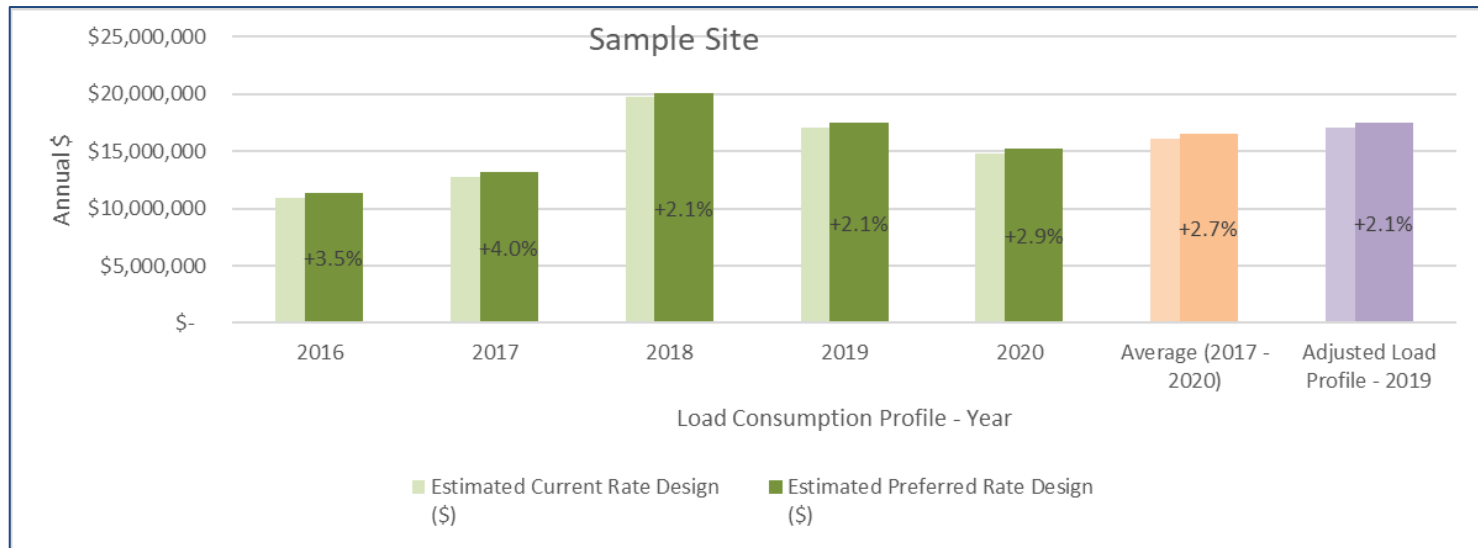


# Annual Summary tab cont.

- Total bill graph and costs year by year:

## Estimated Total Bill (Includes energy settlement costs)

Load Profile Year	Estimated Current Rate Design (\$)	Estimated Preferred Rate Design (\$)	Estimated Impact (\$)
2016	\$ 10,977,762	\$ 11,358,160	\$ 380,398
2017	\$ 12,727,994	\$ 13,243,146	\$ 515,152
2018	\$ 19,718,431	\$ 20,128,684	\$ 410,254
2019	\$ 17,110,780	\$ 17,469,986	\$ 359,206
2020	\$ 14,844,783	\$ 15,276,070	\$ 431,287
<b>Average (2017 - 2020)</b>	<b>\$ 16,100,497</b>	<b>\$ 16,529,472</b>	<b>\$ 428,975</b>



# Adjust Load Profile tab



• Select Load Consumption Profile Year: Load Consumption Profile Year: **2019**

• Use **Override section** to increase or decrease:

- c) Monthly average highest metered demand;
- d) Average coincident metered demand;
- e) Contract capacity; or
- f) Load factor or average metered energy

Billing Quantity	Factor	Monthly Average	Applicable Volumes
(a) Substation fraction (SF)			1.00000
(b) Rate PSC Applicable			No
(c) Highest metered demand		28.1	337.1 MW
(d) Average coincident metered demand	73.3%	20.6	247.0 MW
(e) Contract Capacity		43.4	43.4 MW
(f) Metered energy	84.3%	17,280	207,360 MWh
(g) Billing capacity		39.1	468.7 MW
(h) % of pool price for operating reserve charge			6.45%
(i) Apparent power factor difference			0.0 MVA
(k) Site Average Pool Price on Energy Settlement			\$51.88 /MWh
(l) Annual Average Pool Price			\$54.88 /MWh

Overrides		Applicable Volumes
Factor	Monthly Average	
		1.00000
		No
		337.1 MW
73.3%		247.0 MW
		43.4 MW
		207,360 MWh
		468.7 MW
		6.45%
		0.0 MVA
		\$51.88 /MWh
		\$54.88 /MWh

- ❖ *Billing capacity volumes will adjust as overrides are entered*
- ❖ *Site % of pool price for operating reserve charges and site average pool price resulting from energy settlement are held constant*
- ❖ *Adjusted transmission costs and total bill amounts are carried over to 'Annual Summary' as the adjusted load profile*

- Stakeholders can request from the AESO their site-specific data input for the tool. The AESO will provide the data to the Rate DTS market participant for the site (**working with the applicable distribution facility owner (DFO) if required**).
- Ratepayers can also request a one-on-one meeting with the AESO to ask questions about how the Bill Impact Tool works for their site. These bill impact one-on-one meetings will be scheduled during April 1-14, 2021.
  - Provides an opportunity to focus on a Ratepayer's particular site data
- **Email us at [tariffdesign@aeso.ca](mailto:tariffdesign@aeso.ca)** to request your site-specific data input for the Bill Impact Tool and/or to request your one-on-one bill impact meeting

Questions?

**Break**

Questions?

## Session Close-out and Next Steps

- We want to thank you for attending the Bulk and Regional Tariff Design Technical Information Session II and we would appreciate your feedback on the session
- To limit stakeholder fatigue, we are collecting 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
- Zoom poll



- 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 5 on or before April 15, 2021**. The matrix is available on our website at [www.aeso.ca](http://www.aeso.ca).
  - Path: Stakeholder Engagement > Rules, standards and tariff consultations > Tariff (filter) > Bulk and Regional Tariff Design > March 25, 2021 Session 5
- Within this comment matrix we are looking for your feedback on the following:
  - Session 5 and Technical Information Session II
  - Preferred rate design
  - DOS rate eligibility
  - Targeted approach on mitigation discussions
  - AESO mitigation principles and options
  - Areas of alignment
  - Implementation considerations

- The next session (Session 6) will be hosted in late May or early June 2021. Notice will be provided three weeks in advance in our Stakeholder Newsletter and on our website.
- Session 6 purpose
  - The purpose of the session is to engage stakeholders in a discussion of the AESO's mitigation discussion outcomes, energy storage assessment recommendation, Session 5 stakeholder feedback or follow-up, and areas of alignment
- Session 6 objectives
  - Provide an overview and seek stakeholder input on the outcomes of the targeted mitigation engagement
  - Present and discuss the energy storage assessment recommendation for the purpose of getting stakeholder feedback
  - Share our learnings and seek stakeholder input on Session 5 stakeholder feedback or follow-up and areas of alignment
  - Understand outstanding stakeholder concerns



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**Thank you**