

2021 Budget Review Process Proposed Business Initiatives Session 2

Sept. 21, 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 2021 Budget Review Process. 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

Welcome and Introductions

- Mike Law, President and CEO
- Todd Fior, VP, Finance and Chief Financial Officer
- Dennis Frehlich, VP, Grid Reliability
- Miranda Keating Erickson, VP, Markets
- Pauline McLean, VP, Law, General Counsel and Corporate Secretary
- Karen Campbell, Director, Settlement, Credit and Business Planning
- Mike Deising, Director, Corporate Communication
- Karla Anderson, Communications Advisor

- Purpose
 - Present stakeholder input provided after Session 1
 - Present and discuss AESO's consideration of stakeholder feedback and plans for 2021

Registered session attendees (as of Sept. 14, 2020)

- Alberta Direct Connect Consumers Association (ADC)
- AltaLink Management
- ANC
- Best Consulting Solutions Inc.
- BluEarth Renewables
- Canadian Renewable Energy Association
- Capital Power Corporation
- DePal Consulting Limited
- ENMAX Corporation
- Greengate Power Corporation
- Guidehouse Canada
- Heartland Generation Ltd.
- Hill + Knowlton
- Industrial Power Consumers Association of Alberta (IPCAA)
- Industrial Power Producers Society of Alberta (IPPSA)
- NRGCS
- Smart Wires
- TransAlta Corporation
- Voltus Energy Canada Ltd.

- Welcome and housekeeping
- Introductory remarks
- Budget review process steps
- What we heard and how we plan to proceed
- Stakeholder discussion and input
- Session close-out and next steps

OUR ENGAGEMENT PRINCIPLES

Inclusive and Accessible

Strategic and Coordinated

Transparent and Timely

Customized and Meaningful

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

- All attendees will 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 during the Q&A portion 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 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.

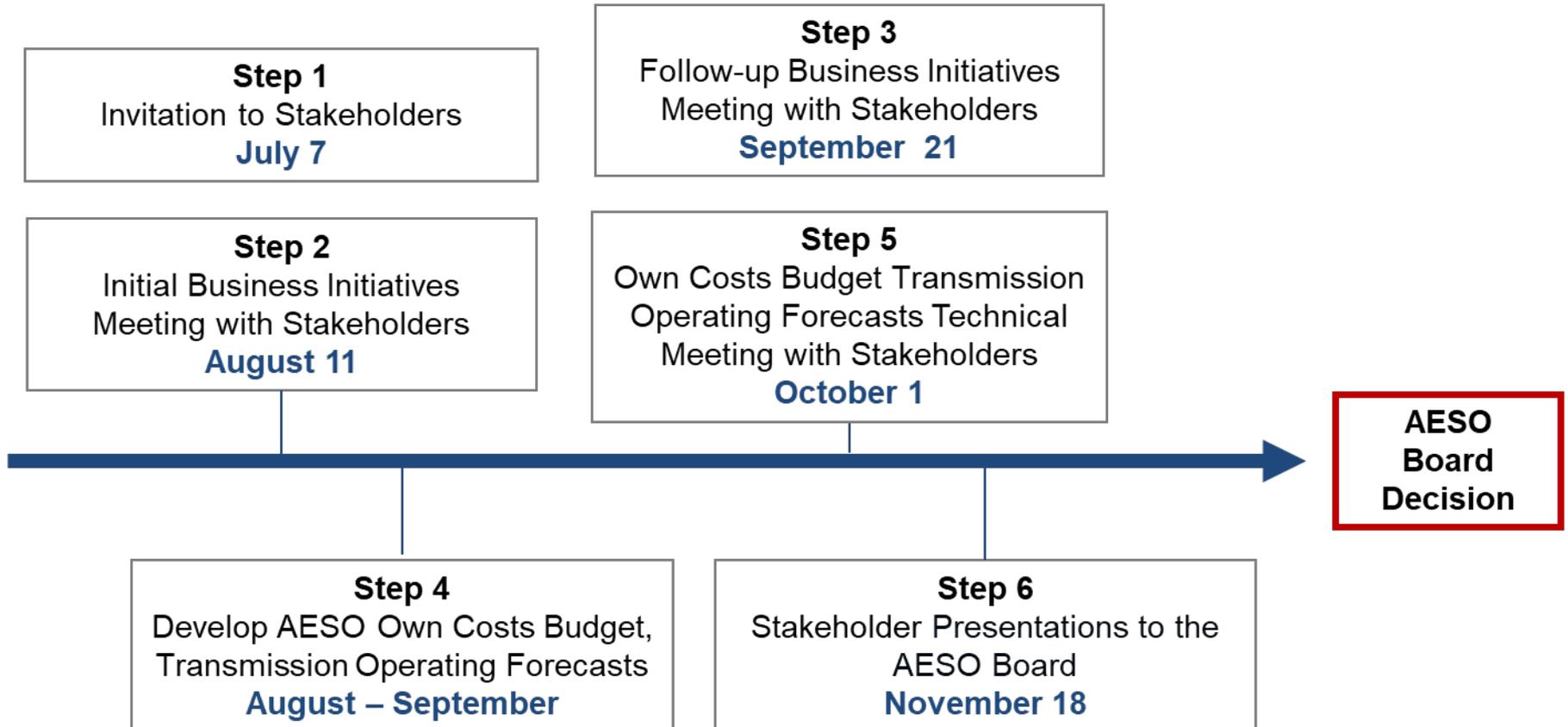
Strategic Focus



- Current economic conditions in the province, driven by low oil price and the pandemic, has led the AESO to focus priorities on:
 - Cost management across the industry value chain
 - Facilitating business in Alberta
 - Ensuring a simple and agile approach to our operations
- These measures align with what we have heard from discussions with the CEO Roundtables and stakeholder engagement sessions

Budget Review Process Steps

2021 BRP milestone dates



What We Heard and How We Plan to Proceed

- As we reviewed the status of the 2020 external business initiatives and presented the proposed new 2021 external business initiatives, questions we asked you to consider:
 - In your view, are the newly proposed 2021 external business initiatives ones the AESO should advance in 2021? And why?
 - In your view, are there certain business initiatives that are more critical than others? And why?
 - In your view, are there any business initiatives not captured that you believe the AESO should advance? And why?

Mandated – Top Priority Business Initiative

Initial proposal

- Initiated in 2020, and will continue into 2021

Objective

- To be in compliance with the *GoA Red Tap Reduction Initiative*, the AESO is committed to reducing regulatory requirements by one-third by 2023

Interdependencies

- Tariff Modernization
- Technology Integration

What we heard

- Advocate for reducing red tape that gets in the way of new business
- Helpful for the AESO to understand what AESO rules/policies/ tariffs are causing most stakeholder concerns
- AESO should consider broader ways to meet its Red Tape Reduction initiative
- Can the AESO publish summary statistics and the work plan for this initiative
- Moving obligations to another entity does not reduce regulatory burden but rather defers the requirement to other entities, adding to their respective lists of regulatory requirements and obligations

How we plan to proceed

- A primary focus for the AESO will be meeting its obligations under the Red Tape Reduction initiative
- In addition to meeting the requirements of the Red Tape Reduction initiative, the AESO will also pursue other opportunities to streamline certain business activities to achieve reductions in regulatory burden more generally
- The AESO is open to receiving feedback from stakeholders regarding regulatory burden
- The AESO is currently considering how best to present information regarding the Red Tape Reduction initiative on its website

Mandated – Top Priority Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Implement approved tariff provisions from 2018 GTA into connection process and AESO business
- File a 2021 tariff rates update in Q4 2020 for a Jan. 1, 2021 effective date

Interdependencies

- Technology Integration
- Distribution Coordination

What we heard

- The General Tariff Application can be characterized as one of the AESO’s largest priorities
- Requires clear descriptions of what will be filed by the AESO and when
- Once the AUC has an e-filing Proceeding ID associated with an AESO application, post that Proceeding ID with the application material on the AESO website – saving stakeholders time
- Major AESO filings and submissions should always be posted on the AESO’s website

How we plan to proceed

- Further clarity on individual ISO tariff activities and filings has been provided in the AESO [2020-2021 Plan for ISO Tariff-Related Activities](#)
- The AESO will strive to make information on its ISO tariff filings more accessible, while not duplicating the AUC e-filing site and purpose

Top Priority Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Simplify ISO tariff to be more accessible, clear and agile

Interdependencies

- Red Tape Reduction
- Distribution Coordination
- Technology Integration

What we heard

- Overwhelming support for this initiative to advance and be made a high priority
- Desire additional clarity around strategy and description of initiative, timing and outcomes seeking to achieve
- Requires meaningful stakeholder engagement and application of significant AESO resources
- Importance of regulatory stability in Alberta market
- Critical importance of reducing market uncertainty to support the facilitation of business in Alberta

How we plan to proceed

- The AESO provided additional information on AESO planned tariff activities in the recently released [2020-2021 Plan for ISO Tariff-Related Activities](#). Additional information on the intent and proposed process for [Tariff Modernization](#) is also included. There will be further opportunities for stakeholders to provide input on areas of value and priority as the AESO progresses its work on Tariff Modernization
- Engagement work is recommencing on the Bulk and Regional Rate Redesign with the next session scheduled for Sept. 24, 2020. The AESO has communicated to the AUC that it will be filing an application related to Bulk and Regional Rate Redesign by March 31, 2021

Top Priority Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Optimize use of existing grid and minimize need or extend timing out for new infrastructure while ensuring reliability and market access

Interdependencies

- Distribution Coordination
- Technology Integration
- OR Market Competitiveness Enhancement

What we heard

- Grid optimizing is an important priority
- Support for applying flexibility standards in interconnections and in using a reasonable approach to congestion analysis

How we plan to proceed

- Grid optimization will focus on:
 - Congestion analysis and milestone triggers to time need for new transmission
 - Application of technologies to optimize existing transmission, including determination of effective “dynamic asset rating” applications
 - Applying flexibility on interconnection standards to reduce costs

Top Priority Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Ensure coordination across the distribution and transmission system as the transformation evolves focused on optimizing transmission system while ensuring reliability and market access

Interdependencies

- Technology Integration
- Optimizing the Grid
- Tariff Modernization
- GTA
- OR Market Competitiveness Enhancement

What we heard

- The integration of distributed energy resources (DER) on the Alberta Interconnected Electric System (AIES) will rely on future policy direction from the Government of Alberta (GoA)
- The three highly integrated initiatives of Tariff Modernization, Transmission / Distribution Coordination, and DER, should be considered priorities for the AESO
- Recommend that the AESO provide additional clarity on where it sees the limit of AESO oversight with regard to distribution infrastructure

How we plan to proceed

- DER connection volumes are growing across the AIES, at different rates in different regions. The AESO's DER Roadmap is focused on proactively ensuring DER site data and technical interconnection requirements are in place across the AIES to ensure reliability of the AIES
- The AESO is coordinating across these three priority initiatives.
- AESO considers it is within its mandate to determine the need for new transmission, as requested by distribution facility owners (DFOs), and to work closely with DFOs to coordinate planning implications from the distribution system onto the transmission system

Top Priority Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Enable timely planned integration of new technologies onto the grid and into our markets
- Enable proactive awareness of future new technologies and the potential impacts to reliability, markets and tariffs

Interdependencies

- Tariff Modernization
- OR Market Competitiveness Enhancement
- Optimizing the Grid
- Distribution Coordination
- Red Tape Reduction
- Market Sustainability and Evolution I and II
- GTA

What we heard

- Until clear policy direction is provided from the Government of Alberta, the AESO should not introduce significant changes to the existing framework but could work to inform the industry of challenges ahead

How we plan to proceed

- The AESO is approaching technology integration using two parallel paths:
 - Integrating technologies via roadmaps such as Energy Storage and DER
 - Creating technology awareness processes to proactively inform the AESO and industry of potential future technologies that may impact the industry, including the AESO's mandate areas of reliability, markets and tariffs

Business Initiative

Initial proposal

- In progress, will continue into 2021

Objective

- Perform an audit of the AESO's financial settlement processes

Interdependencies

- No interdependencies

What we heard

- Support for independent audit to be completed

How we plan to proceed

- Audit deferred to 2021 due to COVID-19, however, readiness component is in progress
- Plan to continue with audit in 2021 as this is a stakeholder requested initiative

Operating Reserve (OR) Market Competitiveness Enhancement

Business Initiative

Initial proposal

- Proposed new initiative for 2021

Objective

- Assess ancillary service products to enable technology agnostic participation, where appropriate
- Assess alternate minor design changes in the OR market that would increase competition in active and standby markets with a focus on the regulating market

Interdependencies

- Technology Integration
- Optimizing the Grid
- Distribution Coordination

What we heard

- There should be an assessment of whether the initiatives are required at this time

How we plan to proceed

- Review competitiveness in the operating reserve market. Potential changes will be identified that could enhance competition in the OR market, including but not limited to the design of the market, methods to improve OR market participation and a review of technical and operating requirements
- Any identified changes will be carefully assessed as to whether they are required and the appropriate timing or pace of the change. Information on the evaluation of the need for change and required timing will be provided through stakeholder engagement

Business Initiative

	What we heard	How we plan to proceed
<p>Initial proposal</p> <ul style="list-style-type: none"> Proposed new initiative for 2021 <ul style="list-style-type: none"> <i>Ramp table</i> <i>Dispatch tolerance</i> <i>Mothball</i> <p>Objective</p> <ul style="list-style-type: none"> To maintain system reliability, and ensure the AESO is facilitating a FEOC market for an evolving electrical system while also providing certainty and stability to the market structure <p>Interdependencies</p> <ul style="list-style-type: none"> Technology Integration Market Sustainability and Evolution I 	<ul style="list-style-type: none"> Importance of regulatory stability in Alberta market The focus in 2021 and 2022 should be on the economic recovery from the pandemic Any discretionary change to the market will add greater uncertainty at a time when the Alberta economy is already facing unprecedented challenges There should be an assessment of whether the initiatives are required at this time. Cost benefit should be completed Existing and potential market participants require clear and concise ISO rules in order to make significant timing decisions related to retirement, commercial outages, and new entry (Mothball Rule) 	<ul style="list-style-type: none"> The AESO is undertaking careful assessment of each initiative, to determine what, if any, change is required and the appropriate timing or pace of the change. Information on the evaluation of need for change and required timing will be provided through stakeholder engagement on each market initiative The AESO is committed to supporting Alberta's economic recovery, with additional focus on cost management across the industry value chain, facilitating business in Alberta, and creating a simpler and more agile approach to our own business processes while also ensuring sustainability of the market in the long-term. In light of that, the on-going evaluation and progress of the market initiatives may result in some of them being deferred or advanced at a slower pace than previously identified or removed from the list

Business Initiative

Initial proposal

- Pricing Framework (complete)
- Flexibility Assessment (complete)
- Sub-hourly Settlement (In progress, will continue into 2021)

Objective

- Make informed decisions or recommendations regarding structural changes to support market sustainability

Interdependencies

- Technology Integration
- Market Sustainability and Evolution II

What we heard

- Expectation that unless the benefits for implementing a change can be clearly demonstrated as outweighing the costs, this initiative should not proceed at this time

How we plan to proceed

- The AESO has been evaluating the costs and benefits of a change to the existing settlement interval; this evaluation will be presented at the upcoming stakeholder session (Sept. 23) and will be used to inform the recommendation on the path forward for the settlement interval

Stakeholder suggested additional business initiatives

- Stakeholders provided their perspectives on business initiatives they felt the AESO had not captured and believe the AESO should be advancing and those include:
 - **Cost management**
 - Stakeholder comment: Recommendation that this be a stand-alone priority item
 - AESO response: The AESO's strategic focus is on cost management as discussed. Proposed initiatives have elements of cost management (e.g., Red Tape Initiative) and the AESO will have a 2021 corporate goal on cost management to create additional corporate focus
 - **Priced interties**
 - Stakeholder request: Priced interties should be an initiative in 2021
 - AESO response: Priced interties is not a priority for the AESO in 2021 and has been removed from the market-related initiatives plan

Stakeholder suggested additional business initiatives (cont.)

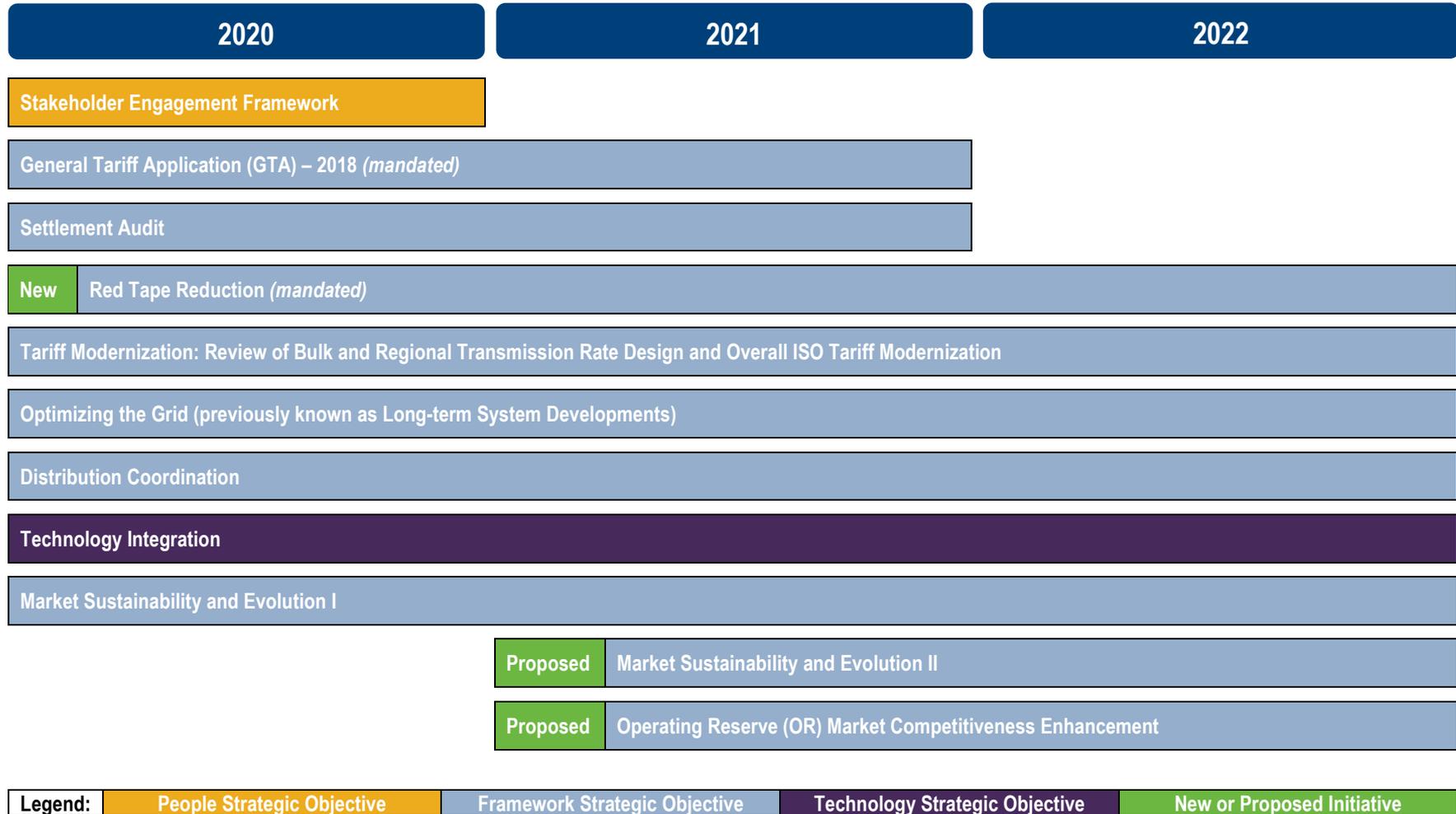
– Loss factors

- Stakeholder comment: An initiative to provide funding in 2021 to the loss factor group to develop and offer loss factor estimates to project developers
- AESO response: The AESO will explore in 2021 the complexity of providing loss factor estimates at an earlier stage in the connection process

– Energy Trading System (ETS)

- Stakeholder request: The AESO should continue to review software modifications to ETS (in 2021 in order to reduce ISO rules contraventions related to the current ETS system)
- AESO response: We will make modifications to ETS and other software when opportunities arise and there is sound rationale to do so

Overview of proposed business initiatives



Session Close-out and Next Steps

- We want to thank you for attending the 2021 BRP Proposed Business Initiatives Session 2 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
- Poll questions:
 - The purpose of the session was clear
 - The information was presented in a clear manner
 - The session was valuable

- The next session will be a technical meeting and will be hosted on **Oct. 1, 2020**. Registration details are now available on our website. An agenda and presentation materials will be posted later this week on our website at www.aeso.ca
 - Path: AESO > About the AESO > Business planning and financial reporting > Business plan and budget > 2021
- The purpose of the next session is to:
 - Present and discuss the AESO's 2021 preliminary forecast and budget information, including:
 - Ancillary Services and Transmission Line Loss Cost Forecasts, and
 - AESO Own Cost Budgets

Thank you

**Appendix: Business 2021 Initiatives
(as presented August 11, 2020)**

Market Sustainability and Evolution I

i. Pricing Framework (Complete)

- Engaged with stakeholders to evaluate the effectiveness of the energy pricing framework in ensuring signals to promote long-term adequacy and efficient short-term market response
- Recommendation Report for Minster submitted by July 31, 2020

ii. Flexibility Assessment (Complete)

- Update to the Flexibility Assessment completed, analysis will be relied on to evaluate Dispatch Tolerance and Ramp Table Submission initiatives

iii. Sub-hourly Settlement (In progress, will continue into 2021)

- Sub-hourly settlement project and engagement progressing as per schedule with evaluation of market benefits and costs

Tariff Modernization: Review of Bulk and Regional Transmission Rate Design and Overall ISO Tariff Modernization

– In progress, will continue into 2021

- In Q2 2018, the AESO proposed to the Alberta Utilities Commission (AUC) that a consultation process be initiated to review bulk and regional transmission rate design; the AUC approved the proposal, and the AESO initiated the consultation process in Q3 2018. Progress was accelerating in 2020, however engagement has been paused due to COVID-19 as industry participants need to focus on core businesses
- Will reinitiate stakeholder engagement and complete the redesign of bulk and regional cost allocation in the ISO tariff, as well as other high priority design elements identified for 2021 filings, while initiating broader tariff modernization activities with the input of key stakeholders

– Plan for 2021

- File Bulk and Regional Rate application with the AUC in Q1 2021
- File additional modules to address AUC Directions in Decision 22942 with AUC in Q2 2021
- As well, proposing restructuring and simplifications to the ISO tariff to modernize it to be more accessible, clear and agile

Tariff: General Tariff Application (GTA)

– In progress, will continue into 2021

- In Q3 2017, the AESO filed the 2018 GTA (formerly referred to as the 2017 Independent System Operator [ISO] Tariff Application) with the AUC. The AESO filed a revised 2018 GTA application in August 2018. The AUC approved the GTA with numerous directions in October 2019; the AESO filed the 2018 GTA compliance filing in January 2020
- Ongoing proceeding process for compliance approval underway with expected AUC approval for the 2018 GTA compliance filing in Q3 2020
- The AESO filed the 2020 tariff rates update in January 2020 with the compliance filing. The AUC approved the rates on an interim basis with a Q2 2020 implementation
- AESO implementation of the 2020 tariff rate update, effective as of April 1, 2020

– Plan for 2021

- Implement approved tariff provisions into connection process and AESO business
- File a 2021 tariff rates update in Q4 2020 for a Jan. 1, 2021 effective date

Optimizing the Grid

- **In progress, will continue into 2021**
 - Reduced interconnection costs by applying flexibility to standards through variances
 - Enhanced congestion analysis methodology and its application to system and connection projects
 - Assessed system projects, incorporating congestion analysis and utilization of milestone triggers to manage construction timing, and where appropriate, will file and seek approval for those projects confirmed as needed

- **Plan for 2021**
 - Continue to enhance methods to maximize the use of existing transmission infrastructure, increase the certainty for the timing of new infrastructure, and seek lower cost end solutions
 - Review technical standards and rules to identify additional flexibility to reduce costs
 - Create and publish planning region/substation level capability maps

Distribution Coordination

– In progress, will continue into 2021

- The *AESO Distributed Energy Resources (DER) Roadmap* was published in June, with priority work focused on defining technical connection requirements and ensuring locational information is centrally available
- Complete Transmission / Distribution Coordinated Planning Framework development for DFO driven transmission projects
- Engaged in AUC Distribution System Inquiry and future policy/regulatory related initiatives to share the AESO's principles and perspectives as it relates to mandate implications

– Plan for 2021

- Implement AESO DER Roadmap technical connection requirements and locational information collection. Coordinate with any AUC DER/Distribution Roadmap development
- Facilitate DER integration and access to AESO electricity markets by updating any ISO rules (if needed) to remove unnecessary market access limitations while ensuring a fair, efficient and openly competitive (FEOC) market.
- Apply Transmission / Distribution Coordinated Planning Framework on future DFO driven transmission projects.
- Engage in future policy/regulatory related initiatives to share the AESO's principles and perspectives as it relates to mandate implications

Settlement Audit

- **In progress, will continue into 2021**
 - Initiated readiness assessment in preparation for settlement audit
 - Complete settlement audit readiness assessment of AESO settlement processes by end of 2020
- **Plan for 2021**
 - Audit scheduled to be completed in 2021 due to COVID-19

Red Tape Reduction (mandated)

– Business initiative description

- The Government of Alberta (GoA) has committed to reducing regulatory requirements by one-third by 2023, and this initiative is known as the *Red Tape Reduction Initiative*
- Develop and implement a workplan to identify, rework and/or remove regulatory requirements in AESO documents as per the GoA's schedule

– Objective

- To be in compliance with the *GoA Red Tape Reduction Initiative*, the AESO is committed to reducing regulatory requirements by one-third by 2023
- In the near-term, the AESO is focusing their red tape reduction efforts on Information Documents, and in the longer-term will be focusing on the Tariff and the Connection Process

Red Tape Reduction (mandated) (cont.)

- **In progress, initiated in 2020 and will continue into 2021**
 - Implementation of the *Red Tape Reduction Initiative* for the AESO has been initiated by the development of an inventory of all AESO documents, followed by a count of all requirements associated with such documents. A workplan has been prepared re: the sequence of documents to be reworked or removed in order to reduce regulatory requirements as per the GoA's schedule
- **Plan for 2021**
 - The AESO will continue to advance the workplan created in 2020. It is expected that a reduction in requirements will be implemented via AESO initiated changes to non-authoritative documents in addition to changes that will need to be filed with the AUC for approval

Market Sustainability & Evolution II

– Business initiative description

- The AESO will progress market-related initiatives that are important to the long-term sustainability of the energy-only market structure, to enable the integration of new technologies and to support increased flexibility on the system
- Planned initiatives include:
 - **Ramp table:** *This initiative will provide for the submission of an asset's ramping abilities in a manner that reflects the asset's changing ramp rate at various levels of output and differing operating configurations*
 - **Dispatch tolerance:** *Current dispatch tolerance allowances may not be sufficient to ensure adequate response to increasing net demand variability, especially with better defined asset ramp characteristics*
 - **Mothball:** *Following the expedited filing of the Mothball rule, the AESO committed to a comprehensive review of the mothball outage reporting requirements. The AESO is re-initiating its review of the mothball rule to address stakeholder concerns raised in past consultations*

Market Sustainability & Evolution II (cont.)

– Objective

- To maintain system reliability, and ensure the AESO is facilitating a fair, efficient and openly competitive (FEOC) market for an evolving electrical system while also providing certainty and stability to the market structure
 - **Ramp table:** *Assess different approaches to define an asset's ramp characteristics and implement an approach that provides for realistic asset ramp abilities*
 - **Dispatch tolerance:** *identify the timing and implications of degraded system performance related to net demand variability and asset dispatch uncertainty. Identify dispatch tolerance alternatives to remedy expected system performance concerns, assess those alternatives and implement changes as needed*
 - **Mothball:** *Identify shortcomings in the current mothball rule and identify and assess alternatives. Also identify gaps and assess alternatives as needed in related asset outage and availability rules such as the generation outage reporting rule, the approach to asset retirement, and the treatment of long lead time assets*

Ancillary Services (AS) Markets Review

– Business initiative description

- This initiative will review the operating reserves (OR) market and contracted services such as transmission must-run (TMR) and Load Shed Services for imports (LSSi), with a focus on increasing competition. Changes may include minor design changes to the OR market, making qualification for participation technology agnostic, and considering lowering size requirements to increase participation

– Objective

- Assess the ancillary service products to enable technology agnostic participation, where appropriate
- Assess alternate minor design changes in the OR market that would increase competition in active and standby markets with a focus on the regulating market

Technology Integration

– In progress, will continue into 2021

- Complete the development of internal technology awareness and integration processes, develop external engagement plan for 2021, and draft AESO's first "Technology Forward". External engagement deferred to 2021 due to COVID-19
- *AESO Energy Storage (ES) Roadmap* has progressed with energy and ancillary services market participation information documents (IDs), the implementation of necessary system changes within the Energy Management System (EMS) and market systems to enable the current active energy storage connection projects. The Energy Storage Information Learning Forum (ESILF) was launched in May initiating the sharing of energy storage learnings across 20 industry leaders

– Plan for 2021

- Progress technology integration by implementing internal change plans, engage externally by publishing the AESO's first "Technology Forward" focused on the electricity value chain and potential future implications to the AESO mandate
- Progress ES roadmap by addressing tariff treatment for energy storage within the ISO tariff, identifying any ISO rule changes needed to further enable integration of ES and filing changes, as required. Continue to share learnings and seek feedback via ESILF