

2019 Budget Review Process (BRP) Proposed Business Initiatives

Stakeholder Meeting
September 18, 2018

- The purpose of this presentation is to provide the stakeholders with:
 - a status update of the AESO's 2019 Budget Review Process (2019 BRP); and
 - an initial listing of proposed 2019 Business Initiatives
 - an update on 2017-2018 completed Business Initiatives
 - obtain stakeholder feedback

- BRP participants - confirmed stakeholder
- Budget Review Process - status update
- 2019 Proposed Business Initiatives - overview
- 2019 Proposed Business Initiatives
- Appendices
 - Appendix 1 - 2017-2018 Business Initiatives - update
 - Appendix 2 - 2019 BRP Milestones (proposed 2018 dates)
 - Appendix 3 - 2019 BRP Proposed Process Steps

BRP participants - confirmed stakeholders



The following stakeholders have confirmed their participation in the 2019 BRP :

- Alberta Direct Connect (ADC)
- ENMAX Corporation (ENMAX)
- Industrial Power Consumers Association of Alberta (IPCAA)
- TransAlta Corporation (TransAlta)
- Utilities Consumer Advocate (UCA)

- 2019 Budget Review Process
 - Notice to Stakeholders - Issued
 - 2019 Proposed Business Initiatives - Drafted
 - Forecasts (Pool Price, Ancillary Service and Transmission Line Losses Costs) – Work In Progress
 - Own Costs Budget - Work In Progress
 - General and Administrative budget
 - Capital budget
 - Other Industry Costs

2019 Proposed Business Initiatives - overview

- The business initiatives:
 - form the basis of AESO's 2019 corporate goals and work plans (organizational direction for 2019)
 - are the foundation for the development of AESO's budgeted costs
- Consist of a combination of carry forward and new initiatives that align with the AESO's *Strategic Plan*
 - tend to be multi-year in nature
 - are internal and external facing
 - stakeholder consultation is focused on the external facing initiatives

**2019 Proposed Business Initiatives
includes expected achievement for 2018 carry
forward Business Initiatives**

2019 Proposed Business Initiatives

Note: **New initiatives identified in green text**



Internal / External	Business Initiative	Expected Achievement in 2018	Plan 2019
Ext.	Intertie restoration	<p>Design Complete design and development of intertie requirements</p> <p>Initiate stakeholder consultation on intertie requirements</p> <p>Complete Regional Electricity Cooperation and Strategic Infrastructure Initiative (RECSI) project studies in coordination with National Resources Canada (NRCAN)</p>	<p>Implementation Initiate needed regulatory approvals to implement the intertie restoration requirements</p>
Ext.	Advancement of the Fort McMurray West project	<p>Design, Implementation The Fort McMurray West project is currently under construction. Alberta Powerline (APL) filed a tariff with the AUC which was approved in January 2018</p> <p>Integration and management of the Fort McMurray West commercial agreement</p> <p>Development of programs to commercially manage the Fort McMurray West project post energization Independent Certifier engaged</p>	<p>Implementation Implementation of required tools and process with the target in-service date for the Fort McMurray West Project is 2019</p> <p>Ensure energization criteria is met prior to the first monthly payment.</p>
Ext.	System control center (SCC) facility expansion	<p>Implementation Building structure to be completed in Q4 2018</p>	<p>Implementation Construction to be completed in Q3 2019</p>

2019 Proposed Business Initiatives

Note: **New initiatives identified in green text**



Internal / External	Business Initiative	Expected Achievement in 2018	Plan 2019
Ext.	IT systems and solutions for market evolution	<p>Design, Implementation Initiate development of tools to support capacity delivery (settlement, performance measurement) and energy market changes for first capacity delivery period</p> <p>Reliability model to support development of capacity market demand curve implemented. High level design for capacity market auction tools in development</p>	<p>Design, Implementation Continue major program to design and implement systems to support the capacity market, including projects for :</p> <ul style="list-style-type: none"> • Calculation of Unforced Capacity (UCAP) of market participants • Capacity market auction solution(s) encompassing pre-auction, auction and rebalancing • Settlement and Performance • Related Energy and Ancillary Service market changes <p>Required tools, enhancements, and process for market evolution and sustainment of existing systems</p> <p>Develop and deliver Market Participant education</p>
Ext.	Capacity market technical design	<p>Design, Implementation Final Comprehensive Market Design (CMD Final) posted to AESO website.</p> <p>Drafting of ISO Rules to reflect market design contained in CMD Final</p> <p>Finalization of demand curve approach. Development of capacity cost allocation tariff</p> <p>Stakeholder engagement on rules and cost allocation to commence in July 2018</p>	<p>Design, Implementation Continue Stakeholder Engagement (i.e. ISO Rules, ISO Tariff, etc.)</p> <p>Capacity market rules filed with the AUC and obtain regulatory approval of ISO rules that reflect capacity market design</p>
Ext.	Capacity procurement process	<p>Design Capacity procurement process</p> <p>Commence development of processes, tools and guidelines</p>	<p>Design, Implementation Continue development of process, guidelines, tools and education</p> <p>Implementation to position AESO to commence opening first capacity procurement process in Q4 2019</p>

2019 Proposed Business Initiatives

Note: **New initiatives identified in green text**



Internal / External	Business Initiative	Expected Achievement in 2018	Plan 2019
Ext.	Tariff : <ul style="list-style-type: none"> • General Tariff Application • Tariff Cost Allocation for Capacity Market 	Design, Implementation Implementation of the 2018 ISO tariff <u>update</u> application File the 2018 ISO tariff application with the Alberta Utilities Commission (AUC) Initiate comprehensive consultation process to review bulk and regional transmission rate design as well as the design for allocation of capacity market costs	Design, Implementation Implementation: continue tariff approval process and implementation of the 2018 ISO tariff application Continue comprehensive consultation process to review bulk and regional transmission rate design as well as the design for allocation of capacity market costs
Ext.	Renewable Electricity Program (REP)	Design, Implementation Progress towards design and implementation of required tools (settlement, etc.) and processes in line with the target in-service date for REP Round 1 projects of Q4 2019 Implementation of REP Rounds 2 and 3 with associated Renewable Electricity Support Agreements awarded by the end of Q4 2018 (through request for proposal process)	Design, Implementation Continue implementation and design of required tools and processes in line with the target in-service date for REP Round 1 projects of Q4 2019 Continue implementation of REP Round 2 and 3 with the target in-service dates in 2021
Ext.	EMS Sustainment	Design Completion of definition work for EMS Core and project validation work for EMS Application upgrade	Design, Implementation Continue design and implementation of EMS Core upgrade to maintain sustainability of the EMS system Initiate design and implementation of EMS application upgrade to advance the application layer of EMS: to support reliability and operation of the evolving, complex market and electric systems

2019 Proposed Business Initiatives

Note: **New initiatives identified in green text**



Internal / External	Business Initiative	Expected Achievement in 2018	Plan 2019
Ext.	Western Interconnection Reliability Coordinator (RC) Initiative	<p>Design</p> <p>With the announcement of the change to the provision of Reliability Coordinator (RC) services in the Western Interconnection:</p> <p>Coordinate with current RC in the Western Interconnection (Peak Reliability Inc.), and future RCs (California Independent System Operator, BC Hydro, Southwest Power Pool).</p> <p>Develop implementation plan to transition RC services from Peak Reliability to relevant future RCs, and commence implementation of plan</p>	<p>Implementation</p> <p>Complete required work for modelling, data exchange, RC-RC coordination, tool development, training and compliance</p>

Appendix 1

2017-2018 Business Initiatives – update (completed in 2017 and 2018)



Internal / External	Business Initiative	Achievements in 2017 and 2018
Ext.	Alberta Reliability Standards (ARS) Critical Infrastructure Protection (CIP)	<p>AESO became CIP compliant as of October 1, 2017</p> <p>AESO completed Western Electricity Coordinating Council (WECC) CIP audit of AESO compliance with standards in Q1 2018</p>
Ext.	Advance system and Regional transmission projects identified in the Long Term Plan (LTP)	<p>Facility Application (FA) filed for the Calgary Downtown Reinforcement Project by ENMAX on November 30, 2017</p> <p>The Provost to Edgerton and Nilrem to Vermillion (PENV) AUC decision on PENV NID filing was received on January 12, 2018. AUC requested to revise the NID submission. The revised NID was filed by the AESO with the AUC on March 26, 2018</p> <p>Rycroft Transmission Reinforcement NID, a component of the NW transmission plan filed by the AESO with the AUC in Q4 2017</p> <p>AESO completed design and development of Chapel Rock- Castel Rock Ridge project requirements and consultation started in Q1 2018</p>
Ext.	Market system replacement and reengineering (MSR) Project	Successfully completed medium-term sustainment measures for 2017

2017-2018 Business Initiatives – update (completed in 2017 and 2018)



Internal / External	Business Initiative	Achievements in 2017 and 2018
Ext.	Tariff rate information and updates	<p>In Q3 2017, the AESO filed the Rider C, Deferral Account Adjustment Rider, amendment application for changes to Rider C and the deferral account reconciliation methodology on an interim refundable basis. This application was filed as part of the 2018 ISO tariff application. Approval was provided by the AUC on an interim basis in Q4 2017 with a Q1 2018 implementation</p> <p>In Q3 2017, the AESO filed the 2018 ISO tariff application (formerly referred to as the 2017 ISO Tariff Application). The AUC suspended this proceeding to allow the AESO time to consult on the coincident metered demand rate design issue and distribution facility owner customer contribution issue</p> <p>In Q3 2017, the AESO filed the 2018 ISO tariff <u>update</u> application. Approval was provided by the Alberta Utilities Commission in Q4 2017 on a final basis with a Q1 2018 implementation</p> <p>An updated Transmission Rate Projection (TRP) model, to incorporate the LTP results, was published and filed with the AUC in Q2 2018</p> <p>In Q2 2018 the AESO proposed to the AUC a comprehensive consultation process to review bulk and regional transmission rate design as well as the design for allocation of capacity market costs. The AUC approved the AESO's proposal to begin the consultation process. The AESO initiated the consultation process in Q3 2018</p> <p>In Q3 2018, the AESO filed the <u>revised</u> 2018 ISO Tariff Application</p>

2017-2018 Business Initiatives – update (completed in 2017 and 2018)

Internal / External	Business Initiative	Achievements in 2017 and 2018
Ext.	Alberta Interconnected Electrical System (AIES) - enhancements (reliability and integration)	<p>Energy Management System (EMS) Upgrade Project completed in Q4 2017</p> <p>Wide Area Network (WAN) fully operational in Q4 2017</p>
Ext.	Advance customer connection projects within the connection queue	<p>49 customer energizations (including Connection, Contract and Behind-the-Fence projects) completed as of December 31, 2017 (for 2017)</p> <p>12 customer connection Abbreviated Need Identification Documents (ANID)s filed with the AUC (none of which were Market Participant Choice projects) and 1 Abbreviated Needs Approval Process (ANAP) customer connection projects were approved as of December 31, 2017 (for 2017)</p>

Appendix 2

2019 Budget Review Process (BRP) Milestones (proposed 2018 dates)



1.0 Invitation to Stakeholders (completed)

August 2

2.0 AESO Business Initiatives (completed)

June - July (internal)

4.0 Technical Review

Meetings with Stakeholders

September 18 - Business Initiatives

October 10 - Own Costs Budget

Transmission Operating Forecasts

**3.0 Develop AESO Own Costs Budget,
Transmission Operating Forecasts**

(internal)

July – September

5.0 AESO Board Decision

November 14 p.m.- Stakeholder presentations to AESO Board

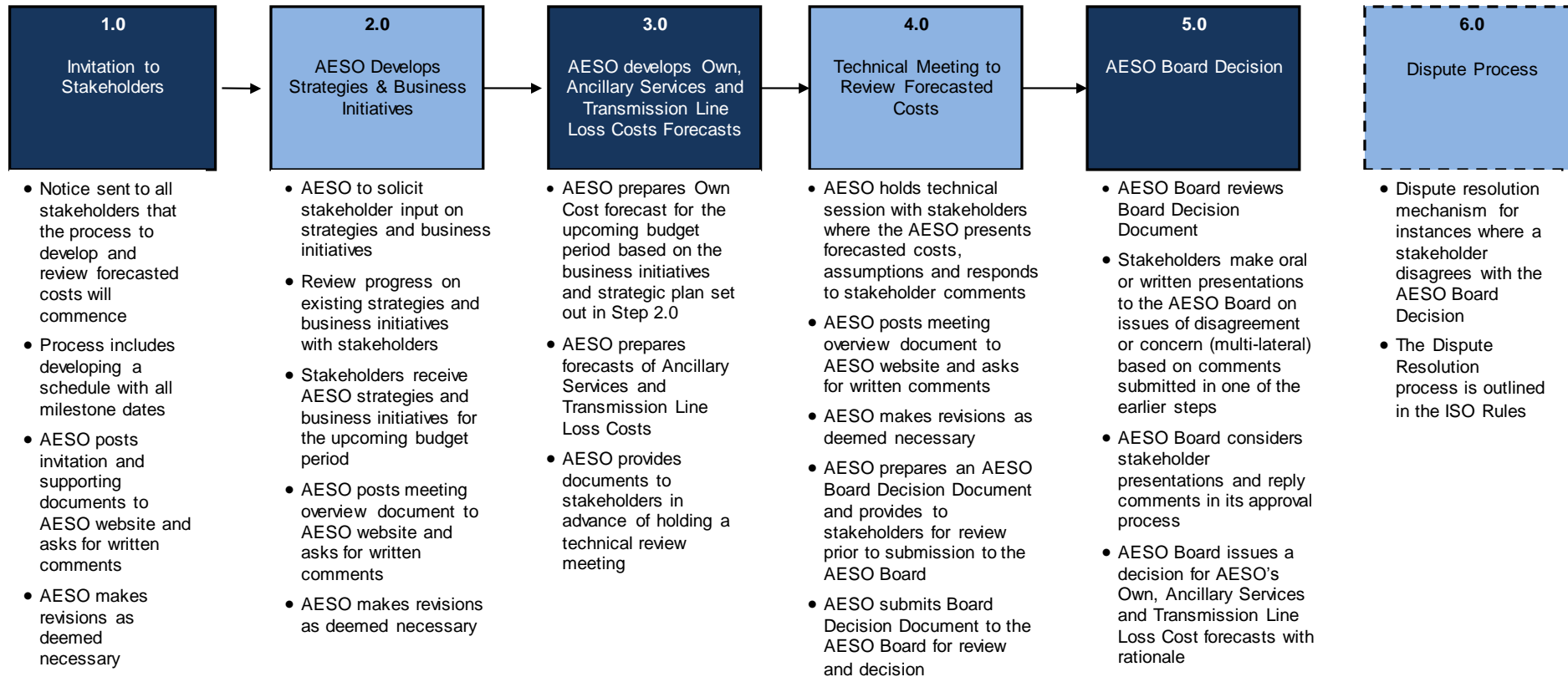
AESO Board
Decision
Document

Appendix 3

Process Steps

AESO 2019 Budget Review Process Overview - Steps

Process to approve forecasted Ancillary Services & Transmission Line Losses and update Stakeholders on Business Initiatives and Own Cost budget



Thank you