

2017-18 Budget Review Process (BRP) Preliminary List of Business Initiatives

Stakeholder Meeting
April 10, 2017

- The purpose of this presentation is to:
 - Provide stakeholders with a BRP status update
 - Provide stakeholders with an overview of the AESO's preliminary list of business strategies and initiatives for 2017-18 (July 2017-December 2018)
 - Obtain initial feedback

2017-18 BRP – Steps and Status Update

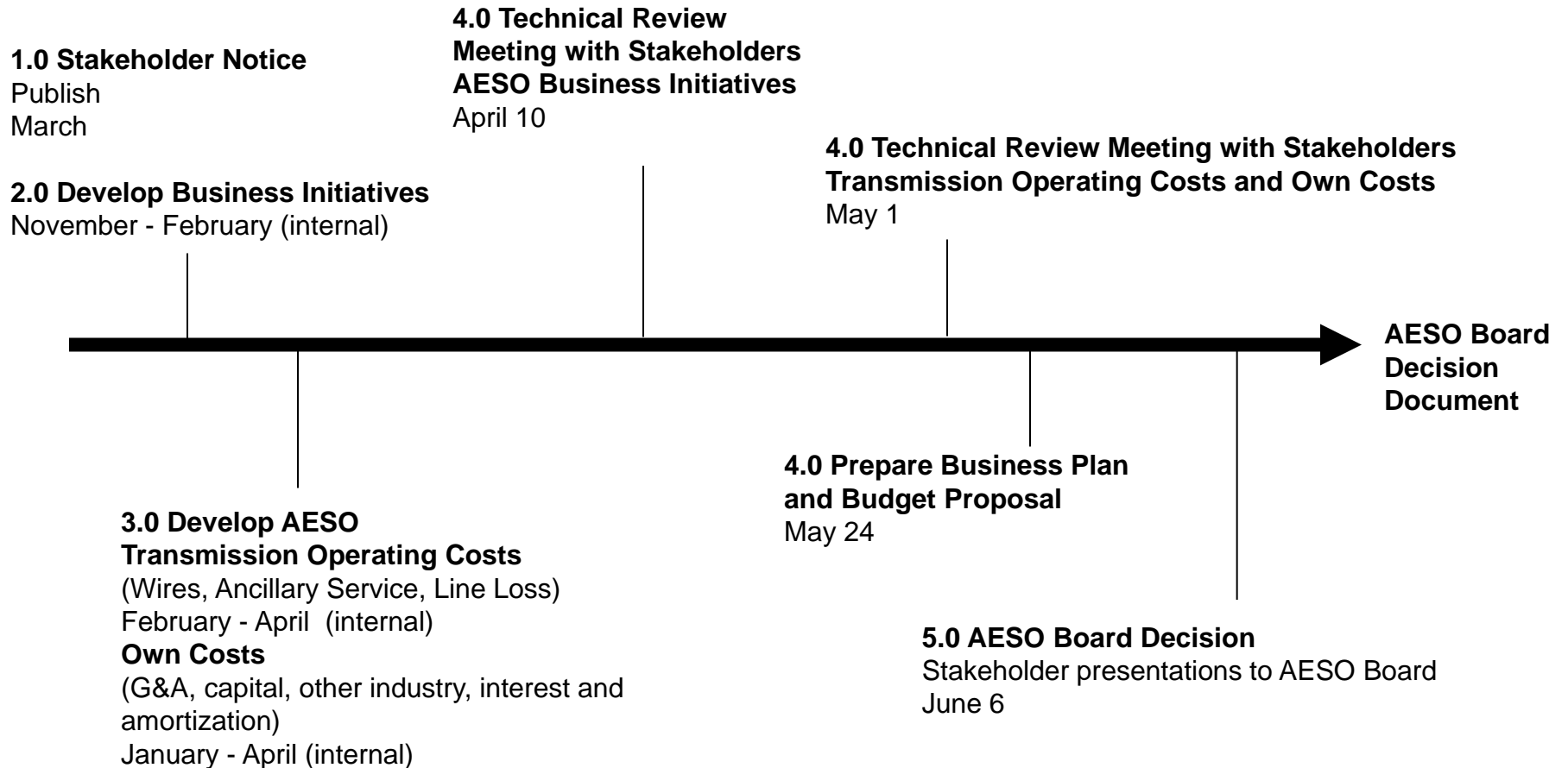
Step	Activity
1.0 Invitation to Stakeholders	Initiate annual consultation process
2.0 AESO Business Initiatives	Present preliminary list of business initiatives and solicit stakeholder feedback
3.0 Develop Own Costs and Transmission Operating Costs Forecast	Develop Own Costs (G&A/Capital/Other Industry, Interest and Amortization) budget and Transmission Operating Costs (Wires, Ancillary Services and Line Loss Cost) forecast
4.0 Technical Review Meeting	Present and solicit feedback on Own Costs budget and Transmission Operating Costs forecast
5.0 AESO Board Decision	Draft AESO Board Decision Document AESO Board meets with stakeholders to discuss issues AESO Board issues final decision
6.0 Dispute Process	Available for instances where stakeholder disagrees with the AESO Board Decision

2017 BRP and 2017-18 BRP Summary

	2017 BRP Q4 2016 Consultation	2017-18 BRP Q1/Q2 2017 Consultation (Current)
Stakeholder Consultation Process	*Written process given limited new information	Consistent with prior years' process for full stakeholder engagement and technical meetings
Business Plan and Budget Proposal	Abbreviated document	Comprehensive document
Business Initiatives	Continuation of existing initiatives	Detailed review and consultation with stakeholders
Transmission Operating Costs	Prepare and approval for 12-month forecast for 2017	Prepare and approval for 12-month forecast for 2018
Own Costs and Capital	Jan to Jun 2017 budget based on 2016 approved budget	Detailed review and consultation with stakeholders for the period from Jul 2017 to Dec 2018

*Allowed for additional time for more details on the government's policy initiatives to become available

2017-18 BRP Tentative Timing



BRP Participants Confirmed Stakeholders

The following stakeholders have confirmed their participation in the 2017-18 BRP :

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

Preliminary List of Business Initiatives

Process to date

- Steps

- Strategic Objectives defined - Appendix I
- 2017 (January - June) business initiatives review - Appendix II
- Develop preliminary list of 2017-18 business initiatives for consultation

- Results

- Strategic Objectives (no changes from prior year - 5yr plan)
 - Strategic Objective 1 - FRAMEWORK
 - Strategic Objective 2 - VALUE
 - Strategic Objective 3 - PEOPLE
- AESO's business initiatives continue to be multi-year in nature

Business Initiatives – Review

Progress Highlights Against 2017 Plan

Strategic Objective

1 - Framework

- Renewable electricity program first competition initiated in March
- Capacity market consultation and design initiated
- Market system replacement and reengineering - continuation of sustainment initiatives
- Progress towards the design and development of the general tariff application
- The development of programs to manage the Fort McMurray West project post energization as well as the implementation of the debt funding competition (both initiated)
- Continued to advance loss factor rule, Alberta reliability standards and technical rules

Strategic Objective

2 - Value

- Abbreviated need approval process in effect
- Continued implementation phase for System Control Centre (SCC) expansion
- Progress towards the internal compliance requirements and related audits and market participant compliance program for Alberta reliability standards CIP implementation
- Continued to advance IT and cyber security program
- EMS production implementation expected by Q3 2017

2017-18 BRP

Strategic Objective 1 – FRAMEWORK

Business Initiative	Plan 2017	Plan 2018
Climate Change Program		
Renewable Electricity Program (REP)	<p>Design and Implementation</p> <p>First competition for the REP program complete. Projects awarded with the first project to be in service in 2019; Commence design of second competition</p>	<p>Design and Implementation</p> <p>Continue design of second competition; Implementation of second competition</p>
Capacity Market	<p>Design and Consult</p> <p>Capacity market design activities; Stakeholder consultation supporting design development</p>	<p>Design, Consult and Implementation</p> <p>Continue consultation for any outstanding elements; Incorporation of design requirements into ISO rules, contracts and/or legislation as required; Implementation of approved design components</p>
Market Systems Replacement		
Market Systems Replacement and Reengineering	<p>Design and Implementation</p> <p>Implementation of medium-term measures to help sustain reliability of legacy systems; Initiate design of future iterations / projects</p>	<p>Implementation</p> <p>Implementation of future iterations in support of capacity market and ongoing market evolution</p>

Business Initiative	Plan 2017	Plan 2018
Electric System Development		
General Tariff Application	Design Continue required design and development activities; Support regulatory process	Design and Implementation Continue to support regulatory process; Implementation of approved tariff
Loss Factor rule, Alberta Reliability Standards and technical rules	Design and Implementation Continue to advance design/development of loss factor rule, Alberta reliability standards and technical rules; Implement/execute on loss factors	Design and Implementation Continue to advance Alberta reliability standards; Design/implement: technical rules; Implement: execute on loss factors

Business Initiative	Plan 2017	Plan 2018
Major Projects		
Intertie Restoration	<p>Design</p> <p>Initiate development of needed regulatory approvals for restoring current interties (finalize options to achieve simultaneous transmission ratings)</p>	<p>Design</p> <p>Continue design/development of requirements and initiate needed regulatory approvals</p>
Advancement of the Fort McMurray West (FMW) Project	<p>Design and Implementation</p> <p>Continue to integrate and manage the contract requirements for the FMW project; Develop programs to manage the FMW project post energization; Implementation of debt funding competition</p>	<p>Design and Implementation</p> <p>Continue to integrate and manage the contract requirements for the FMW project; Develop programs to manage the FMW project post energization</p>

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Strategic Objective 2 – VALUE



Business Initiative	Plan 2017	Plan 2018
Reliability Program		
Energy Management System (EMS) Upgrade	Implementation Complete EMS upgrade project	Implementation Implementation of sustainment program
SCADA/Wide Area Network Implementation	Implementation Continue/complete Transmission Facility Operators (TFOs) migrations; Continue Independent Power Producer migrations to a WAN/SCADA to create diversity and enhance communication	Implementation Continue/complete Independent Power Producer migrations to a WAN/SCADA to create diversity and enhance communication
System Control Centre (SCC) Facility Expansion	Implementation Detailed design and building permit submitted; Award of construction contract	Implementation Commencement of construction activities
Alberta Reliability Standards (Critical Infrastructure Protection - CIP) Implementation		
Alberta Reliability Standards (CIP) Implementation Program	Design and Implementation Complete implementation of internal compliance requirements and advance related audits; Continue to establish market participant compliance program	Implementation Complete internal WECC (CIP) audit; Market participant compliance program operationalized; Internal CIP sustainment program

Business Initiative	Plan 2017	Plan 2018
IT and Cyber Security Advancements		
IT and Cyber Security advancements	<p>Implementation</p> <p>Continue to advance IT and cyber security program through best practices and continued evolution</p>	<p>Implementation</p> <p>Advance IT and cyber security program through best practices and continued evolution to adapt to new and changing threats</p>
Customer Access Services		
Connection Process efficiency opportunities	<p>Design, Consultation and Implementation</p> <p>Continue to enhance connection process efficiency opportunities as well as align with the renewable electricity program; Continue to monitor abbreviated needs approval process (ANAP); Continue to monitor market participant choice (MPC) process</p>	<p>Design, Consultation and Implementation</p> <p>Continue to enhance connection process efficiency opportunities as well as align with the renewable electricity program; Continue to monitor abbreviated needs approval process (ANAP); Continue to monitor market participant choice (MPC) process</p>

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Strategic Objective 3 – PEOPLE

Business Initiative	Plan 2017	Plan 2018
Continue to advance the maturity of our Human Resources processes		
Workforce capabilities - Expanded	Design and Implementation Continue to increase workforce capabilities to advance evolving strategic initiatives	Design and Implementation Continue to increase workforce capabilities to advance evolving strategic initiatives
Corporate Services		
Ongoing reviews of AESO activities, existing/new processes and information technologies	Design and Implementation Continue to perform ongoing reviews of AESO activities, existing/new processes and information technologies to determine where business efficiencies can be realized	Design and Implementation Continue to perform ongoing reviews of AESO activities, existing/new processes and information technologies to determine where business efficiencies can be realized

AESO Strategies

Reference: 2014-2018 Strategic Plan

- Strategic Objective 1 – FRAMEWORK: We will enable Albertans to continue to realize the value provided by robust competition and reliable operations, while providing our stakeholders with confidence to invest in the province as we guide the evolution of the electricity framework.
- Strategic Objective 2 – VALUE: We will drive value throughout all that we do in the execution of our mandate by maintaining focus, striving for exceptional delivery, and upholding high standards of excellence while being adaptable to change.
- Strategic Objective 3 – PEOPLE: We will continue to strengthen our workforce capacity and talent to enable the AESO to meet the changing needs of the organization.

AESO's 2017 Business Initiatives

Reference: BRP – Stakeholder Consultation Summary Presentation, October 13, 2016

Business Initiatives Supporting Strategic Objective 1 – FRAMEWORK

Business Initiative	Expected Achievement 2016	Plans 2017
Market Evolution – Ongoing assessment of market design, structural elements and implementation of related changes		
Climate Change Program	<p>Design, Consult, Implementation</p> <p>Renewable Electricity Program (REP) Government of Alberta (GoA) endorsed; AESO positioned to open first competition in Q4 or in line with revised GoA timelines; Commencement (first stage) of first competition</p> <p>Framework monitoring, assessment of proposed changes and related recommendations</p>	<p>Design, Consult (rules development), Implementation</p> <p>Implement first REP competition (Round 1) and identify winning bidders</p> <p>Framework monitoring, assessment of proposed changes and related recommendations</p>
Market Initiatives	<p>Consult, Design and Implement</p> <p>Determine the integration plan for new products and/or technologies (e.g. operating reserve amendments, technical standards and tariff provisions); Implement plan - Storage, Mothballing and Intertie Restoration inflight</p>	<p>Implementation</p> <p>Tariff provisions for storage to be filed as part of the next General Tariff Application (GTA) in 2017</p> <p>Other new products/technologies to continue</p>
Market Systems Replacement - Replacement and/or reengineering of market systems determined to have reached end-of-life		
Market Systems Replacement and Reengineering (MSR)	<p>Implementation</p> <p>Complete MSR System reliability components (short-term sustainment)</p>	<p>Implementation (future sustainment iterations)</p> <p>Continuation of future sustainment initiative</p>

Business Initiatives Supporting Strategic Objective 1 – continued

Business Initiative	Expected Achievement 2016	Plans 2017
Tariff and Technical Standards Enhancements		
2017 General Tariff Application (GTA)	Consult and Design Major components include how energy storage will be managed in the tariff, Section 8 (customer contributions) changes and cost/causation study	Implementation File GTA with AUC
Technical Standards and Rules	Consult, Design and Implement Prioritization and Advancement of Loss Factor rule; Alberta Reliability Standards (80 new standards and revisions required); and Technical Rules (Customer Connection, Substation, Transmission Line and Metering Rules)	Consult, Design and Implement Continue to advance Loss Factor rule, Alberta Reliability Standards and Technical Rules
Major Projects – Design, development and deployment activities for projects having notable industry impact		
Advancement of the Fort McMurray West (FMW) Project (Formerly referred to as CP Integration)	Design, Implementation AESO regulatory proceedings involvement where applicable; Continued Project integration; Preparation for Debt Funding Competition (DFC)	Implementation Develop programs to manage the FMW Project post energization; Implementation of DFC

Business Initiatives Supporting Strategic Objective 2 – VALUE

Business Initiative	Expected Achievement 2016	Plans 2017
Reliability Program – Facility, process and technology enhancements to improve grid reliability		
Energy Management System (EMS) Upgrade	Implementation Replacement infrastructure procurement and configuration; Factory Acceptance Testing complete	Implementation Production implementation by July 2017
System Control Centre (SCC) Facility Expansion	Implementation Complete definition phase including all preliminary approvals; Subject to Board approval, commence implementation phase and develop schedule	Implementation Continue implementation phase – RFP, permit applications, other as required
Security – Critical Infrastructure Protection (CIP), Information Technology (IT) and cyber security enhancements		
Alberta Reliability Standards CIP Implementation	Implementation Develop internal CIP process and procedure requirements; Establish compliance approach for monitoring market participants and guidance on preparing compliance evidence	Implementation Complete internal compliance requirements and related audits; Set up market participant compliance program
IT and Cyber Security Advancements	Implementation IT and Cyber Security advanced in accordance with AESO business plan	Implementation Continue to advance IT and Cyber Security program

Business Initiatives Supporting Strategic Objective 3 – PEOPLE

Business Initiative	Expected Achievement 2016	Plans 2017
Advance maturity level of our Human Resources processes		
Workforce capabilities - expanded	<p>Design, Implementation</p> <p>Increase workforce capabilities by broadening knowledge (AESO and industry) across the organization; Program development of cross functional practice and learning opportunities realized; Enhance learning and development programs to meet future needs as identified in strategic plan; Establish broader exposure and a comprehensive understanding of corporate skills and competencies required in the future</p>	<p>Design, Implementation</p> <p>(2015-2018 HR strategy and roadmap roll out) – continued from 2016</p>

Thank you