

AESO BOARD DECISION 2019-BRP-001

AESO 2019 Business Plan and Budget Proposal

December 2018

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1. Introduction

The following information documents the Alberta Electric System Operator (“AESO”) Board decision (“Decision”) on the AESO’s 2019 Business Plan and Budget Proposal (“Business Plan”) which includes the AESO’s 2019 business initiatives and related budgets for general and administrative, interest, amortization, capital and other industry costs, as well as the 2019 forecasts for transmission line losses and ancillary services costs. This Decision should be read in conjunction with the Business Plan, comments from Stakeholders who participated in the process (“Stakeholders”) and AESO Management’s (“Management”) responses to those comments, all of which are available on the AESO’s website at www.aeso.ca

The *Transmission Regulation*¹ (“T-Reg”) includes provisions addressing the process for consultation and approval of the AESO budget for general and administrative, interest, amortization, capital and other industry (collectively referred to as “Own Costs”), as well as forecasts for transmission line losses and ancillary services costs. The T-Reg provides that the AESO must consult with Stakeholders likely to be directly affected by these proposed costs. It also provides that Own Costs, once approved by the AESO Board, are considered as prudent by the Alberta Utilities Commission (“AUC”) unless an interested person satisfies the AUC that such costs are not prudent. Transmission line losses and ancillary services costs, once approved by the AESO Board, are also deemed to be prudent by the AUC. Subsequent to the AESO Board’s Decision, a Stakeholder may dispute that Decision pursuant to the Dispute Resolution provisions of the ISO Rules.

The practice established by the AESO to conduct consultation on these costs is the Budget Review Process (“BRP”). The BRP is an open and transparent process which facilitates a business initiative and cost review with Stakeholders. Consistent with prior years, a recommendation on the AESO’s business initiatives, budgeted Own Costs, and forecasted transmission line losses and ancillary services costs was prepared by Management and outlined in the Business Plan. This information was provided to the AESO Board for review and approval, or to be amended and approved, as appropriate.

¹ AR 86/2007

2. Budget Review Process

The Process

An overview of the 2019 BRP, terms of reference, and proposed process calendar providing the 2019 BRP milestone activities leading up to this Decision can be found in the Business Plan (Section 3). A summary of the key 2019 BRP steps and dates from 2018 is provided in the following table:

Key BRP Dates in 2018	Step Summary
August 2	Notice to stakeholders – A notice was distributed to stakeholders regarding the initiation of the BRP (i.e., stakeholder consultation process), an overview of the process steps, terms of reference, and proposed process schedule.
September 18	First stakeholder meeting – Stakeholder meeting to discuss the preliminary list of AESO business initiatives proposed for 2019.
October 10	Second stakeholder meeting – A technical review meeting to discuss 2019 forecasted transmission line losses and ancillary services costs and the preliminary AESO own costs budgets (general and administrative, interest, amortization, capital and other industry costs).
November 14	Stakeholder and AESO Board meetings (as required).

2019 BRP

The AESO Board continues to believe that the BRP, which includes multiple stages, regular opportunities for interaction with Stakeholders, the disclosure of Stakeholder and Management positions and comments, and the publishing of this Decision, meets the previously noted key requirements of the T-Reg.

During 2018, five Stakeholders participated in the 2019 BRP. The AESO Board and Management recognize the importance of Stakeholder participation in the BRP in order for the process to be successful and appreciate Stakeholders' time and effort.

As part of the BRP, two Stakeholders - Alberta Direct Connect Consumer Association (ADC) and Industrial Power Consumers Association of Alberta (IPCAA) - provided the AESO Board with written submissions on

the Business Plan and met with the AESO Board on November 14, 2018 to clarify their submissions. Those Stakeholder submissions and other Stakeholder comments relating to the *Business Plan* have been considered in reaching this Decision. The written comments received from Stakeholders during the BRP and Management's replies to those comments are documented in the Business Plan (Section 5). The November 14, 2018 stakeholder submissions to the AESO Board, and Management responses to those submissions, can be found on the AESO website at www.aeso.ca

AESO Board Key Findings

The AESO Board received the requisite information on the 2019 BRP, including an overview of the process undertaken, the disclosure of Stakeholder comments with corresponding Management responses and the Business Plan, and has performed a detailed review of the Business Plan with Management to develop this Decision. In addition, it should be noted that Management provides ongoing updates to the AESO Board on a regular basis, through its Audit Committee, on the AESO's actual financial results compared to approved budgets and forecasts.

The AESO Board believes that the BRP has achieved its objectives and has met the requirements of the T-Reg².

3. Strategic Plan and Business Initiatives

Strategic Plan

The business initiatives as set out in the Business Plan are based on the AESO's five-year 2019-2023 *Strategic Plan* ("Strategic Plan"). The Strategic Plan is reviewed annually against the AESO's statutory obligations and current circumstances, and is amended as required as a part of the AESO's annual strategic planning process. The Strategic Plan establishes the AESO's objectives for the five-year 2019-2023 period, and the Business Plan outlines the specific tasks to be focused on in 2019 to meet those objectives. Some initiatives will be completed in 2019; others will require more than one year to be completed. The Business Plan provides transparency as to which initiatives will be focused on in 2019.

The Strategic Plan identifies three strategic objectives as areas of focus. The focus of these objectives include the AESO becoming a more dynamic organization with the expertise and agility to adapt to transformative change, delivering a stable electricity framework that provides reliability at lowest cost

² Subsection 3(1)(b)

through competition as the AESO bridges from the current transition to the broader industry transformation, providing optionality for consumers and industry to integrate new technologies and approaches while maintaining the overall reliability of the grid. The Strategic Plan becomes the starting point for the development of the Business Plan. The AESO has, from time to time, amended its objectives on its own initiative or in response to Stakeholder feedback. The three strategic objectives were provided to Stakeholders as part of the Business Plan (Section 4, Appendix A).

Business Initiatives

The AESO's 2019 business initiatives are set out in the Business Plan (Section 4, pages 5-10) and provide Stakeholders with an understanding of the organization's corporate direction for 2019 and beyond, as many of the AESO's business initiatives are multi-year in nature. The business initiatives were discussed with Stakeholders as part of the BRP and the AESO Board understands that there were no substantive concerns raised by Stakeholders on the business initiatives being proposed. Management believes the initiatives for 2019 as outlined in the Business Plan meet the objectives of the AESO.

AESO Board Key Findings

The AESO Board has reviewed the Stakeholder submissions on the AESO's proposed business initiatives, listened to Stakeholder clarifications of their submissions by way of presentations to the AESO Board and reviewed the associated replies from Management. The AESO Board finds that the business initiatives as outlined in the Business Plan are comprehensive and necessary to achieve the organization's objectives in 2019. The AESO Board acknowledges that there were various comments by Stakeholders in their submissions to Management during the BRP. The AESO Board has considered the information they were presented and approves the business initiatives for 2019 as outlined in the Business Plan.

4. AESO 2019 Budget and Forecast Cost Summary

The AESO's 2019 budgeted and forecasted costs were reviewed with Stakeholders as part of the 2019 BRP and identified in the Business Plan. The details of the AESO Own Costs budgeted and Transmission Operating Costs forecasted costs for 2019 can be found in the Business Plan. The AESO's 2019 general and administrative, interest and amortization budgets are discussed in Section 5, the 2019 capital budget costs are discussed in Section 6, the 2019 other industry forecast costs are discussed in Section 7 and the forecasts for transmission line losses and ancillary services costs are discussed in Section 8 of this Decision.

The following table provides a summary of the aggregated budgeted and forecasted costs recommended by Management to the AESO Board for approval:

	Budget Category/Year		Page Reference ³	Revenue Source (\$ million)				
				Transmission	Energy Market	Renewables	Load Settlement	Total
OWN COSTS	General and Administrative	2019	18	65.8	38.0	4.8	1.0	109.7
	Interest	2019	22	2.2	1.2	0.3	0.0	3.6
	Amortization	2019	22	15.6	5.6	0.0	0.1	21.2
	Capital	2019	24					49.4
	Other Industry Costs	2019	16	15.5	8.3	-	-	23.8
TRANSMISSION OPERATING COSTS	Wires	2019	13	1,834.6	-	-	-	1,834.6
	Transmission Line Losses	2019	13	126.2	-	-	-	126.2
	Ancillary Services	2019	13	313.8	-	-	-	313.8
SUMMARY	Own Costs	2019		83.6	44.8	5.1	1.1	134.6
	Transmission Operating Costs	2019		2,274.5	-	-	-	2,274.5

Differences are due to rounding

³ Details provided on the referenced pages in Section 4 of the Business Plan

5. 2019 General and Administrative, Interest and Amortization

General and Administrative

As part of the annual planning process, Management conducted an extensive and iterative review of the AESO's 2019 initiatives, activities and deliverables and corresponding general and administrative costs. Based on this review, the AESO's proposed 2019 general and administrative costs are \$109.7 million, which is slightly lower than the 2018 approved budget of \$111.1 million (\$1.4 million or 1.3% lower than the 2018 budget).

An analysis of the proposed AESO's 2019 general and administrative cost budget was provided to Stakeholders and the AESO Board by Management as part of the BRP and can be found in the Business Plan (Section 4, pages 18-21). The following table provides a summary of the proposed adjustments to the budget cost categories.

2019

	Description of Cost	Amount (\$ million)
1.	Staff Costs	0.7 increase
2.	Contract Services and Consultants	3.9 decrease
3.	Administration	0.6 increase
4.	Facilities	0.4 increase
5.	Computer Services, Maintenance and Telecommunications	0.8 increase
	Change in general and administrative costs 2019 budget vs. 2018 budget	1.4 decrease

Differences are due to rounding

The AESO continues to adapt to new and changing initiatives while maintaining reliable operations of the transmission system and other core AESO functions. The AESO's general and administrative budgeted costs focus on the delivery of key initiatives which tend to be multi-year in nature. The focus in 2019 for the AESO will be the continued design and implementation of the capacity market framework. This key initiative requires significant industry participation and support and will require appropriate continued funding for the AESO to ensure resources are available to successfully deliver on this important initiative.

For 2019, this initiative will be focused on the following activities:

- Filing of the proposed ISO Rules with the AUC to obtain required regulatory approval;
- Development and implementation of required information technology tools;
- Position the AESO for the first capacity procurement process to occur in late 2019; and
- Continued consultation regarding the ISO tariff design for allocating capacity procurement costs and bulk and regional transmission system costs and filing the tariff application with the AUC

In addition, there are several other key initiatives that will be the AESO's focus in 2019:

- Advancement of Renewable Electricity Program ("REP") rounds 1,2 and 3 and funding for various other REP initiatives;
- Required process, tool and engineering work for Fort McMurray West energization to occur in 2019;
- Completion of AESO's System Coordination Centre ("SCC") Expansion project ;
- Continued focus on Critical Infrastructure Protection standards and cyber security requirements; and
- Development of technology roadmaps (flexibility, storage and distributed energy resources) and engineering studies

The AESO will continue to identify opportunities to be more efficient and effective in its operations while delivering on its mandate and the key initiatives identified above.

Interest and Amortization

Management also provided Stakeholders with an analysis of the proposed adjustments to the interest and amortization as part of the BRP. This information is also outlined in the Business Plan (Section 4, page 22).

A summary of the proposed changes are provided in the table below:

Interest Costs and Amortization (\$ millions)	2019 Budget	2018 Budget	2017 Actual
Interest	3.6	1.5	0.5
Amortization of Intangible and Capital Assets	21.2	19.9	20.4

Additional interest costs are budgeted for 2019 (compared to 2018) related to development of a payment plan for recalculated losses factors for the years 2006 thru 2016 as a result of an AUC proceeding (AUC Decision 790-D06-2017). A payment plan is to be made available, to extend the period of time that charges can be recovered from market participants. Market participants must request the deferral of payment and meet certain requirements to qualify. An amount of \$1.5 million has been included in interest expense for

2019 for the plan. The actual interest expense may vary significantly as a result of settlement results for the years being resettled and once the market participants who qualify are determined. This will determine the amount required to be financed by the AESO. The actual interest costs will be recovered from market participants who participate in the payment plan.

Intangible and capital assets are amortized over their estimated useful lives in accordance with generally accepted accounting principles and reviewed on an annual basis. The higher amortization in 2019 is mainly due to a higher depreciable asset base in 2019 over 2018.

AESO Board Key Findings

The AESO Board has reviewed and considered Management’s proposed budgeted 2019 Own Costs and associated stakeholder comments and responses from Management. The AESO Board approves the respective 2019 general and administrative, interest and amortization budgeted costs as provided in the Business Plan.

6. 2019 Capital Costs

The AESO Board, as indicated in previous decisions, continues to believe that the AESO’s IT systems and related infrastructure represent a central underpinning of the AESO’s business, including maintaining the efficacy of the functioning of the market and the interconnected electric system. The AESO budgets its capital costs on a discrete basis, where each budget period is reviewed independently as to the expenditures to be incurred in the budget. The AESO takes into consideration those capital projects which are already in progress and those which will be initiated within the period to determine the budget amount for the upcoming period.

In the Business Plan, Management proposed capital budgets of \$49.4 million for 2019. Further details are provided in the Business Plan (Section 4, Appendix E). A summary of the proposed changes are provided in the table below:

Capital Expenditures (\$ millions)	2019 Budget	2018 Budget	2017 Actual
General Capital	40.4	18.4	15.3
Major Capital	9.0	16.0	8.4
Total Capital	49.4	34.4	23.7

Differences are due to rounding

The variance between the 2018 and 2019 capital budgets is an increase of \$15.0 million from \$34.4 million in 2018 to \$49.4 million in 2019. The increase is mainly attributable to the key capital initiatives related to the Energy Management System (“EMS”) sustainment and the capacity market implementation which are AESO business initiatives requiring significant capital expenditures. The facility-based SCC Expansion project is categorized as a major capital initiative as it is a multi-phased, multi-year initiative intended to address the incremental staff requirements associated with the increase in the number of programs provided by the AESO, address the inherent loss of efficiency in support of grid operations when the personnel are not physically located at the SCC; and take into account Alberta Reliability Standards and Critical Infrastructure Protection Standards. The SCC Expansion project continued implementation phase cost is attributable for \$9.0 million of the 2019 Capital Budget. The SCC Expansion project implementation phase remains on budget and on schedule for completion in Q4 2019. The AESO will continue to provide Stakeholders with regular updates on the key and major capital projects as a part of the AESO’s quarterly reporting to Stakeholders.

The AESO continues to utilize a capital projects portfolio management process and, on a quarterly basis, the AESO Board, through the AESO’s Audit Committee, reviews the portfolio against the approved budget. Any material changes are communicated to Stakeholders as required as a part of the AESO’s quarterly reporting.

AESO Board Key Findings

The AESO Board approves the capital cost budget of \$49.4 million for 2019 as provided in the *Business Plan*.

7. Other Industry Costs

Management provided a forecast to Stakeholders for 2019 with an analysis of the proposed adjustments to Other Industry Costs forecasts as part of the 2019 BRP. This information is outlined in the Business Plan (Section 4, pages 16 and 17). There is a proposed increase of \$0.8 million from \$23.0 million in the 2018 forecast to \$23.8 million in 2019 mainly due to an estimated increase in costs related to regulatory process costs as the AESO is expected to be involved in several significant regulatory proceeding in 2019 including: capacity market – provisional proceeding; capacity market – comprehensive proceeding; capacity market – tariff cost allocation proceeding; 2018 ISO tariff proceeding; and various Need Identification Document (“NID”) proceedings. A summary of the proposed changes are provided in the table below:

Other Industry Costs (\$ millions)	2019 Forecast	2018 Forecast	2017 Actual
AUC Fees – Transmission	12.2	12.8	11.8
AUC Fees – Energy Market	6.5	6.5	6.0
WECC/NWPP/NERC Costs ⁴	2.4	2.2	2.2
Regulatory Process Costs	2.8	1.5	1.2
Total Other Industry Costs	23.8	23.0	21.2

Differences are due to rounding

AESO Board Key Findings

The AESO Board approves the other industry cost forecast of 23.8 million for 2019 as provided in the *Business Plan*.

8. 2019 Transmission Line Losses Costs and Ancillary Services Costs

The AESO's 2019 transmission line losses costs are forecast to be \$126.1 million and the ancillary services costs are forecast to be \$313.8 million. Both of these items are detailed in the *Business Plan* (Section 4, pages 12-15). The forecasts are based on volume forecasts determined by the AESO and market-based commodity price forecasts developed by a third party. The average pool price used for the 2019 forecast is \$58 per MWh, which is 35 per cent higher than the 2018 forecast based on a \$43 per MWh average pool price.

The 2019 forecast cost for transmission line losses is \$126.1 million or 30 per cent higher than the 2018 forecast cost of \$96.8 million. The 2019 volume forecast is based on 2.1 terawatt hours of energy, which is 0.1 terawatt hours or five per cent lower than the 2018 forecast of 2.2 terawatt hours of energy. The forecasted higher transmission line loss costs are primarily a result of the higher pool price forecasted in 2019 compared to 2018.

The 2019 forecast for ancillary services costs is \$313.8 million or 75 per cent higher than the 2018 forecast of \$179.2 million, which can mainly be attributed to the higher pool prices forecasted in 2019. The 2019 operating reserves volume forecast, which is the most significant component of the annual ancillary services costs, is 7.9 terawatt hours, which is 0.4 terawatt hours or five per cent higher than the 2018 forecast of 7.5 terawatt hours. Contributing to higher operating reserve costs is the impact of the active

⁴ Western Electricity Coordinating Council/Northwest Power Pool/North American Electric Reliability Corporation

operating reserves prices, which are the most significant operating reserve costs, which are derived from pool price and a premium or discount to pool price. During periods of low pool prices, the discounts offered reflect the offer strategies associated with the lower pool prices, which are low or small discounts. In periods of higher pool prices, the discounts will typically increase to correspond with the higher pool prices. While the prices of operating reserves procured are indexed to the pool price, changes to the average pool price do not result in proportional changes to the operating reserve costs. See *Business Plan*, (Section 4, pages 13 and 14) for additional information.

AESO Board Key Findings

The AESO Board understands that it is inherently difficult to forecast these costs accurately as these costs are a function of volume and market-based commodity price forecasts. Volume forecasts tend to generally be reasonably accurate as volumes (generation and load) can be projected with a higher degree of certainty over time, generally reflecting historical trends. However, commodity price forecasts, and specifically pool price forecasts, are subject to greater variability as the forecasts are subject to various underlying factors (e.g., generator offer strategies, unplanned outages, load requirements) which are difficult to estimate. The AESO Board believes the methodologies and assumptions used by Management to forecast these costs are reasonable and the forecasts are approved. It is recognized that these forecasts are estimates and Management makes reasonable efforts to forecast these costs as accurately as possible using the best information available.

9. Decision Overview

On balance, having regard for all comments provided by Stakeholders and its own assessment, the AESO Board finds the AESO's 2019 budgeted costs for general and administrative, interest, amortization, capital and other industry, and the forecasts for 2019 transmission lines losses and ancillary services costs as identified in the table on page 8 of this Decision, to be reasonable and are hereby approved.

The AESO Board acknowledges that from time to time due to uncertainty in the AESO's planned initiatives, or unplanned initiatives as they arise, the AESO's Own Costs budget as approved by the AESO Board may need to be revised for additional resource requirements to accommodate the uncertainty. If a revised Own Costs budget is required for 2019, the AESO is committed to follow its established BRP process to consult with Stakeholders as required. The AESO will notify Stakeholders of any proposed consultation should the need arise.

In closing, the AESO Board would like to highlight its appreciation to Stakeholders for their valued contributions and participation in the BRP and commends Management for its efforts to inform Stakeholders and to seek their input on the Business Plan.

The AESO Board welcomes any comments from interested parties on improvements to the BRP and has requested that Management continue its discussions with Stakeholders toward ongoing process improvement.

Signed at Calgary, Alberta on January 17, 2019

For the AESO Board,



AESO Board Chair,
Will Bridge