

AESO BOARD DECISION 2017-2018-BRP-001

AESO 2017-2018 Business Plan and Budget Proposal

June 2017

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1. Introduction

The following information documents the Alberta Electric System Operator (“AESO”) Board decision (“Decision”) on the AESO’s 2017-2018 Business Plan and Budget Proposal (“Business Plan”) which includes the AESO’s 2017 and 2018 business initiatives and related budgets for general and administrative, interest costs, amortization, capital and 2018 other industry costs, as well as the 2018 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, other industry and capital (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 costs 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

In 2016, the BRP process for approving the AESO's 2017 business plan and budgets was amended to ensure that both the Stakeholder consultation and AESO Board approval processes remained efficient and meaningful while the AESO awaited the Government of Alberta's policy decisions related to the implementation of its Climate Leadership Plan ("CLP") and assessed the implications on the AESO's business initiatives. As a result, Management limited the consultation on the AESO's business initiatives (rolled forward from 2016) and Own Costs to the first six months of 2017 (with the exception of other industry costs). A full-year forecast was provided for transmission operating costs² and budgeted other industry costs. This allowed the AESO additional time to assess the impacts of the CLP initiatives on the AESO's operations and more specifically, the impacts of the November 2016 announcement by the Government of Alberta that Alberta would be transitioning to a new framework that included both an energy market and new capacity market.

Subsequently, the BRP timing for 2017 and 2018 ("2017-2018 BRP") was amended. Over the last several months the proposed business initiatives for 2017 and 2018, which indicate the planned direction and the focus of the operations, have been reviewed and discussed with stakeholders and the AESO Board. These business initiatives, which have not changed materially from the 2016 business initiatives as the AESO's business initiatives tend to be multi-year initiatives, combined with the day-to-day operational activities form the foundation from which the 2017 and 2018 Own Costs budgets and 2018 forecasts for transmission operating costs have been developed. The AESO's business initiatives and Own Costs have been revised for 2017 to reflect a 12-month operating period, as opposed to the previous approved six-month initiatives and budgets. This Decision will supersede the AESO Board's December 2016 approvals for the first six months of 2017 for general and administrative, interest, amortization and capital costs.

² Wires, ancillary services and transmission line losses costs

An overview of the 2017-2018 BRP, terms of reference, and proposed process calendar providing the 2017-2018 BRP milestone activities leading up to this Decision can be found in the Business Plan (Section 3). A summary of the key 2017-2018 BRP steps and dates is provided in the following table:

Key Date	Step Summary
March 6, 2017	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.
April 10, 2017	First stakeholder meeting – Stakeholder meeting to discuss the preliminary list of business initiatives proposed for 2017 and 2018.
May 1, 2017	Second stakeholder meeting – A technical review meeting to discuss the preliminary Own Costs budgets (general and administrative and capital) proposed for 2017 and 2018 and the transmission line losses and ancillary services costs forecasts for 2018.
June 6, 2017	Stakeholder and AESO Board meetings (as required).

2017-2018 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 2017, eight Stakeholders participated in the 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 June 6, 2017 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 June 6, 2017 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 2017-2018 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-Reg³.

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 2014-2018 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 identifies three strategic objectives as areas of focus. The focus of these objectives include building on the electricity framework that has been successful to date, providing value to Albertans as an organization and retaining and attracting the right people. 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 strategic objectives were provided to Stakeholders as part of the Business Plan (Section 4, Appendix A).

³ Subsection 3(1)(b)

Business Initiatives

The AESO's 2017 and 2018 business initiatives are set out in the Business Plan (Section 4, page 5-9) and provide Stakeholders with an understanding of the organization's corporate direction for 2017, 2018 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 2017 and 2018 as outlined in the Business Plan meet the objectives of both the AESO and Stakeholders.

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 2017 and 2018. 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 2017 and 2018 as outlined in the Business Plan.

4. AESO 2017-2018 Budget and 2018 Forecast Cost Summary

The AESO's 2017 and 2018 Budgets and 2018 Forecasts were reviewed with Stakeholders as part of the BRP and identified in the Business Plan. The details of the AESO Own Costs budgets for 2017 and 2018 and 2018 Transmission Operating Costs forecasts can found in the Business Plan. The AESO's budgets for its 2017 and 2018 general and administrative, interest, amortization and other industry costs are discussed in Section 5, the 2017 and 2018 capital budgets are discussed in Section 6, and the forecast for transmission line losses and ancillary services costs are discussed in Section 7 of this Decision.

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

	Budget Category/Year		Page Reference ⁴	2017 and 2018 Cost Allocations (\$ million)				
				Transmission	Energy Market	Renewables	Load Settlement	Total Budget
OWN COSTS	General and Administrative	2017	18	70.1	22.7	4.6	1.1	98.5
		2018		70.6	23.0	4.6	1.1	99.3
	Interest	2017	19	0.3	0.5	0.1	0.0	0.9
		2018		0.7	0.6	0.2	0.0	1.5
	Amortization	2017	19	12.7	6.0	-	0.1	18.8
		2018		14.1	5.7	-	0.1	19.9
	Capital	2017	21					26.9
		2018						34.4
TRANSMISSION OPERATING COSTS	Wires	2018	12	1,723.0	-	-	-	1,723.0
	Transmission Line Losses	2018	12	96.8	-	-	-	96.8
	Ancillary Services	2018	12	179.2	-	-	-	179.2
	Other Industry Costs	2018	14	15.5	7.6	-	-	23.0
SUMMARY	Own Costs	2017		83.1	29.1	4.7	1.2	118.2
		2018		85.4	29.3	4.8	1.2	120.7
	Capital	2017						26.9
		2018						34.4
	Transmission Operating Costs	2018			2,014.5	7.6	-	-

Differences are due to rounding

⁴ Details provided on the referenced pages in Section 4 of the AESO's 2017-2018 Business Plan and Budget Proposal dated May 29, 2017

5. 2017 and 2018 General & Administrative, Interest, Amortization and 2018 Other Industry Costs

General & Administrative

As part of the annual planning process, Management conducted an extensive and iterative review of the AESO's 2017 and 2018 initiatives, activities and deliverables and corresponding general and administrative costs. Based on this review, the AESO's proposed 2017 and 2018 general and administrative costs are \$98.5 million and \$99.3 million respectively which is consistent with the 2016 actual costs of \$97.5 million.

An analysis of the proposed AESO's 2017 and 2018 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 16-19). The following table provides a summary of the proposed adjustments to the budget cost categories.

2017

	Description of Cost	Amount (\$ million)
1.	Staff Costs	1.1 decrease
2.	Contract Services and Consultants	1.5 increase
3.	Administration	0.6 decrease
4.	Facilities	0.1 increase
5.	Computer Services, Maintenance and Telecommunications	1.1 increase
	Change in general and administrative costs - 2016 actual vs. 2017 budget	1.0 increase

2018

	Description of Cost	Amount (\$ million)
6.	Staff Costs	1.9 increase
7.	Contract Services and Consultants	2.0 decrease
8.	Administration	0.1 increase
9.	Facilities	0.4 increase
10.	Computer Services, Maintenance and Telecommunications	0.4 increase
	Change in general and administrative costs - 2017 budget vs. 2018 budget	0.8 increase

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. There are several key initiatives that will be the AESO's focus, in either or in both 2017 and 2018 and are as follows:

- Capacity Market design and implementation;
- Renewable Electricity Program design and implementations;
- Critical Infrastructure Protection implementation and sustainment;
- Energy Management System (“EMS”) Upgrade commissioning and sustainment; and
- Fort McMurray West Debt Funding Competition.

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

Interest Costs and Amortization (\$ millions)	2018 Budget	2017 Budget	2016 Actual
Interest	1.5	0.9	0.8
Amortization	19.9	18.8	24.3

The 2017 budgeted interest costs are consistent with 2016 actuals. Additional interest costs are budgeted for 2018 related to financing capital projects and the timing difference for the recovery of costs related to the renewable electricity programs.

The lower amortization in 2017 and 2018 is mainly due to a reduced depreciable asset base and a change to the estimated useful lives of the certain assets in 2016. Intangible and capital assets are amortized over their estimated useful lives in accordance with generally accepted accounting principles and reviewed on an annual basis.

Other Industry Costs

Management provided a 12-month budget to Stakeholders for 2018 with an analysis of the proposed adjustments to other industry costs budgets as part of the 2017-2018 BRP. This information is also outlined in the Business Plan (Section 4, pages 14 and 15). There is a slight decrease of \$0.2 million from \$23.2 million in the 2017 budget to \$23.0 million in the 2018 budget mainly due to an estimated decrease in the budgeted costs related to AUC fees.

AESO Board Key Findings

The AESO Board has reviewed Management's proposed budgets, Stakeholder comments on the Own Costs budgets for 2017 and 2018 (2018 for other industry costs) and reviewed the associated responses from Management and approves the respective 2017 and 2018 general and administrative, interest, amortization cost budgets and the 2018 other industry cost budget as provided in the Business Plan.

6. 2017 and 2018 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 \$26.9 million for 2017 and \$34.4 million for 2018. Further details are provided in the Business Plan (Section 4, Appendix E).

A major information technology project and a facilities project comprise \$10.0 million of the \$26.9 million 2017 capital budget. The information technology project is the EMS Upgrade project (implementation to be completed in 2017) which is \$7.1 million of the major projects capital budget in 2017. This initiative will ensure that the AESO can continue to realize the value of the electricity framework and will allow for continued robust competition and reliable operations. The facility-based project is the System Coordination Centre ("SCC") Expansion project, which 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 Critical Infrastructure

Protection Standards. The SCC cost is attributable for \$2.9 million of the 2017 Capital Budget of \$26.9 million and \$16.0 million of the \$34.4 million 2018 Capital Budget. The AESO will provide Stakeholders with regular updates on both 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 \$26.9 million for 2017 and \$34.4 million for 2018.

7. 2018 Transmission Line Losses Costs and Ancillary Services Costs

The AESO's 2018 transmission line losses costs are forecast to be \$96.8 million and the ancillary services costs are forecast to be \$179.2 million. Both of these items are detailed in the Business Plan (Section 4, pages 12 and 13). 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 2018 forecast is \$43 per MWh, which is 34 per cent higher than the 2017 forecast of \$32 per MWh.

The 2018 forecast cost for transmission line losses is \$96.8 million or 31 per cent higher than the 2017 forecast cost of \$74.1 million. The 2018 volume forecast is based on 2.2 terawatt hours of energy, which is 0.1 terawatt hours or four per cent lower than the 2017 forecast of 2.3 terawatt hours of energy.

The 2018 forecast for ancillary services costs is \$146.6 million or 66 per cent higher than the 2017 forecast of \$88.2 million. The 2018 operating reserves volume forecast, which is the most significant component of the annual ancillary services costs, is 7.5 terawatt hours, which is 0.2 terawatt hours or three per cent lower than the 2017 forecast of 7.3 terawatt hours. Contributing to higher operating reserve costs is the impact of the active operating reserves prices, which are the most significant operating reserve costs. These costs are derived from pool price and with a premium or discount to pool price.

Both the forecasted higher transmission line loss costs and operating reserve costs are primarily a result of the higher pool price forecasted in 2018 compared to 2017. See Business Plan, (Section 4, pages 12 and 13) 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.

8. Decision Overview

On balance, having regard for all comments provided by Stakeholders and its own assessment, the AESO Board finds the AESO's 2017 and 2018 budgets for general and administrative costs, interest costs, amortization costs and capital costs, and the forecasts for 2018 transmission lines losses, ancillary services costs, budgeted other industry 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 2017 or 2018, 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 August 2, 2017.

For the AESO Board,

A handwritten signature in black ink, appearing to read 'L. Chambers', with a long horizontal flourish extending to the right.

Linda Chambers
AESO Board Chair