



Alberta Electric System Operator

2018 Independent System Operator Tariff Update

November 28, 2017

Alberta Utilities Commission

Decision 23065-D01-2017

Alberta Electric System Operator

2018 Independent System Operator Tariff Update

Proceeding 23065

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1 Introduction

1. On October 27, 2017, the Alberta Electric System Operator (AESO) filed an application with the Alberta Utilities Commission requesting approval of its 2018 Independent System Operator (ISO) tariff update. In this application, filed pursuant to sections 30 and 119 of the *Electric Utilities Act*, the AESO requested approval of changes to the levels only, that is, the dollar-based and percentage of pool price amounts, of Rate DTS (demand transmission service), Rate FTS (Fort Nelson demand transmission service), Rate DOS (demand opportunity service), Rate XOS (export opportunity service), Rate XOM (export opportunity merchant service), Rate PSC (primary service credit), Rate STS (supply transmission service), Rider J and Section 8 of the ISO tariff. The application does not include any changes to the structure of the rates or to the provisions of the terms and conditions (other than maximum investment levels (MILs)) currently approved in the AESO's 2017 ISO tariff.
2. The AESO's 2018 ISO tariff update application reflects an overall decrease of 5.1 per cent over the 2017 rates currently in effect.
3. The AESO requested that the tariff update be approved with an effective date of January 1, 2018. If the timing of this application does not permit the granting of final approval prior to January 1, 2018, the AESO requested that the Commission approve the application on an interim refundable basis effective January 1, 2018. The updated rates, riders and investment levels proposed in this application apply on a go-forward basis only, commencing from the effective date approved by the Commission. Consistent with the Commission's statements in Decision 2014-242,¹ the AESO submitted that currently-approved deferral account rider and reconciliation mechanisms should continue to be used to address any variances between costs and revenues occurring prior to the approval of the applied-for rates.
4. The Commission issued notice of the application on October 30, 2017, requesting that any statements of intent to participate (SIP) be filed by November 9, 2017. In response to the notice, the Commission received a SIP from the Alberta Direct Connect Consumers Association (ADC) in support of the application and the AESO's requested January 1, 2018, implementation date.
5. For the purposes of this decision, the Commission considers the proceeding record to have closed on November 9, 2017.
6. In reaching the determinations contained within this decision, the Commission considered all relevant materials comprising the record of this proceeding. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Commission's reasoning relating to a particular matter and should not be taken

¹ Decision 2014-242: Alberta Electric System Operator, 2014 ISO Tariff Application and 2013 ISO Tariff Update, August 21, 2014, paragraph 617.

as an indication that the Commission did not consider all relevant portions of the record with respect to that matter.

2 Background

7. On December 22, 2010, the Commission issued Decision 2010-606,² in which the AESO's proposed annual tariff update methodology was summarized as follows:

537. In conjunction with its proposal for major updates, the AESO proposed to make annual tariff update filings involving the following three principal components:

- an annual revenue requirement update using the approach to the wires cost forecast as described in section 2.2 of the Application, plus forecasts for ancillary services costs, losses costs and administration costs approved by the AESO Board for the forecast year;
- revised rate levels for each AESO rate calculated from the forecast revenue requirement and forecast billing determinants using rate calculations and rate design approved in the most recent comprehensive tariff application; and
- annual updates to investment amounts approved in the most recent comprehensive tariff reflecting an escalation factor based on the most recent Conference Board of Canada Alberta consumer price index (CPI).³

8. The Commission approved the current form of the AESO's 2017 ISO tariff, effective January 1, 2017, on an interim refundable basis in Decision 22093-D01-2016⁴ and on a final basis in Decision 22093-D02-2017.⁵ The AESO's 2017 ISO tariff approved in that decision reflected costs and billing determinants for the 2017 calendar year.

9. The AESO filed this annual tariff update application to reflect costs and billing determinants for the 2018 calendar year. The AESO has applied for updated 2018 bulk system, regional system and point of delivery cost functionalization and 2018 classification as part of its 2018 comprehensive ISO tariff application, filed on September 14, 2017, and currently being considered by the Commission in Proceeding 22942.⁶

3 Details of the application

10. The AESO explained that the tariff update application consists of formulaic updates to: (i) the AESO's annual revenue requirement, based on the AESO's updated forecast costs for 2018; (ii) rate, rider and MIL amounts using the rate calculation methodology already approved by the Commission in Decision 3473-D01-2015 (Errata);⁷ and (iii) the investment amounts first

² Decision 2010-606: Alberta Electric System Operator, 2010 ISO Tariff, Proceeding 530, Application 1605961-1, December 22, 2010.

³ Decision 2010-606, paragraph 537.

⁴ Decision 22093-D01-2016: Alberta Electric System Operator, 2017 ISO Tariff Update – Interim Approval, Proceeding 22093, December 2, 2016.

⁵ Decision 22093-D02-2017: Alberta Electric System Operator 2017 ISO Tariff Update, Proceeding 22093, April 4, 2017.

⁶ Exhibit 22942-X0002, paragraphs 18, 49-78.

⁷ Decision 3473-D01-2015 (Errata): Alberta Electric System Operator, 2014 ISO Tariff Compliance Filing Pursuant to Decision 2014-242, Module 1, Proceeding 3473, Application 1610935-1, June 17, 2015.

approved in Decision 3473-D01-2015 (Errata), updated in Decision 21302-D01-2016,⁸ and then updated in Decision 22093-D02-2017, in accordance with the escalation factor. The AESO submitted that the updates proposed in this application will limit potential misallocations that might occur if the AESO continued to rely on Rider C, its deferral account adjustment rider, to allocate revenue and cost imbalances to market participants.

11. The AESO's revenue requirement consists of costs related to wires, ancillary services, transmission line losses, and the AESO's own administration (which includes other industry costs and general and administrative costs). The AESO's forecast costs for 2018 are reproduced below.⁹

Table 1. 2018 forecast, 2017 updated forecast, 2016 and 2015 recorded cost components

Cost component	2018 forecast	2017 updated forecast	2017 forecast	2016 recorded	2015 recorded
	(\$ million)				
	A	B	C	D	E
Wires	1,720.3	1,734.0	1,729.4	1,711.4	1,566.6
Ancillary services	179.2	118.9	182.6	93.2	171.2
Losses	96.8	74.1	111.9	41.1	77.4
Administrative	100.8	98.7	99.9	100.4	98.5
Revenue requirement	2,097.1	2,025.6	2,123.9	1,946.0	1,913.7

12. The 2018 updated forecast costs represent a decrease of \$26.8 million (or 1.3 per cent) over the 2017 forecast costs. The decrease primarily results from a forecast decrease of \$9.1 million (or 0.5 per cent) in wires costs.

13. Wires costs include primarily wires-related costs of transmission facility owners (TFOs) as well as two small non-wires costs. The AESO has determined the 2018 wires costs for TFOs using the following approach, which was described in the AESO's 2014 ISO tariff application and 2013 ISO tariff update,¹⁰ approved in Decision 2010-606, referred to in Decision 2014-242¹¹ and updated in Decision 22093-D02-2017.¹²

- a) If a transmission facility owner has received final Commission approval for its applicable tariff, the AESO includes the approved cost for that transmission facility owner tariff.
- b) If a transmission facility owner has applied for its tariff, the Commission has issued an initial decision on the application, and the transmission facility owner has submitted a refiling in compliance with the decision, the AESO includes the transmission facility owner tariff costs included in the refiling.
- c) If a transmission facility owner has applied for its tariff but the Commission has not yet issued an initial decision on the application or an initial decision has been issued

⁸ Decision 21302-D01-2016: Alberta Electric System Operator, 2016 ISO Tariff Update, Proceeding 21302, March 31, 2016.

⁹ Exhibit 23065-X0006, application, PDF page 7.

¹⁰ Exhibit 0026.00.AESO-2718, Alberta Electric System Operator 2014 ISO Tariff Application and 2013 ISO Tariff Update, dated July 19, 2013, paragraphs 53-57.

¹¹ Decision 2014-242, paragraph 43.

¹² Decision 22093-D02-2017 at paragraph 37.

but the transmission facility owner has not yet submitted its compliance refiling, the AESO includes the most recent of the following: (i) the transmission facility owner tariff costs last approved by the Commission on a final basis for the transmission facility owner plus 72% of any increase or decrease included in the transmission facility owner's tariff application above or below the prior approved costs, and (ii) the transmission facility owner tariff costs last applied-for by the transmission facility owner in a compliance refiling plus 72% of any increase or decrease included in the transmission facility owner's tariff application above or below the prior approved costs.

- d) If a transmission facility owner has not yet applied for its tariff, the AESO includes the most recent of the following: (i) the transmission facility owner tariff costs last approved by the Commission on either a final or interim basis, and (ii) the transmission facility owner tariff costs last applied-for by the transmission facility owner in a compliance refiling.

14. The TFO wires costs included in this application are provided in the table below.¹³

Table 2. AESO 2018 wires cost

AESO 2018 wires cost	2018	2017	2017	2016	2015
Description	forecast	updated forecast	forecast	recorded	recorded
TFO wires-related costs					
AltaLink	892.1	866.2	868.6	822.3	732.4
ATCO Electric	625.4	664.8	664.8	691.3	644.2
Isolated Generation	<u>-3.1</u>	<u>-1.7</u>	<u>-3</u>	<u>-1.3</u>	<u>-2.4</u>
Subtotal ATCO Costs	622.3	663.1	661.8	689.9	641.7
ENMAX Power Corporation	80.1	79.7	73.9	74.8	74.1
EPCOR Distribution & Transmission	99.3	98.6	98.6	99.8	93.9
City of Lethbridge	7.1	7.1	7.1	6.3	6.3
TransAlta Utilities Corporation	4.9	4.9	4.9	4.5	4.9
City of Red Deer	4.3	4.3	4.3	3.9	3.5
FortisAlberta (Farm Transmission)	<u>4.7</u>	<u>4.7</u>	<u>4.7</u>	<u>4.8</u>	<u>4.7</u>
Subtotal TFO wires-related costs	1,714.90	1,728.60	1,723.90	1,706.30	1,561.50
Non-wires costs					
Invitation to Bid on Credits (IBOC)	1.9	1.9	1.5	1.8	1.4
Location Based Credit Standing Offer (LBC SO)	<u>3.5</u>	<u>3.5</u>	<u>4</u>	<u>3.2</u>	<u>3.7</u>
Subtotal IBOC/LBC SO costs	<u>5.4</u>	<u>5.4</u>	<u>5.5</u>	<u>5</u>	<u>5.1</u>
TOTAL WIRES COSTS	<u>1,720.30</u>	<u>1,734.00</u>	<u>1,729.40</u>	<u>1,711.40</u>	<u>1,566.60</u>

15. The AESO has forecast 2018 ancillary services costs of \$179.2 million which represent approximately nine per cent of the AESO's transmission revenue requirement. Ancillary services, as defined in subsection 1(1)(b) of the *Electric Utilities Act*, are services required to

¹³ Exhibit 23065-X0006, application, PDF page 10.

ensure that the interconnected electric system is operated in a manner that provides a satisfactory level of service with acceptable levels of voltage and frequency. The largest component of ancillary services costs is operating reserves, which represent the real power capability above system demand required to provide for regulation, forced outages and unplanned outages.

16. The 2018 forecast costs for transmission line losses are \$96.8 million and represent approximately five per cent of the AESO's transmission revenue requirement. Losses are the energy lost on the transmission system when power is transmitted from suppliers to loads.

17. The 2018 forecast cost for administration is \$100.8 million and represents approximately five per cent of the AESO's transmission revenue requirement.

18. The AESO is not seeking approval of its forecast revenue requirement. The ancillary services costs, losses costs, and administrative costs are approved by the AESO Board in accordance with the *Transmission Regulation*. Section 3 of the *Transmission Regulation* requires the AESO to consult with market participants with respect to proposed costs to be approved by the AESO Board. Subsection 46(1) of the *Transmission Regulation* provides that these costs, once approved by the AESO Board, must be considered "prudent" by the Commission unless an interested person satisfies the Commission otherwise.

19. Rates in the AESO's 2018 ISO tariff update application have been updated to reflect the 2018 forecast revenue requirement, 2018 wires costs functionalization, and 2018 forecast billing determinants.

Rate calculations

20. In this application, the AESO used the rate calculation methodology approved by the Commission in Decision 3473-D01-2015 in connection with the AESO's 2014 ISO tariff application. Specifically, the AESO has used the 2014 rate calculations included as Appendix B of the AESO 2014 ISO tariff compliance filing¹⁴ as the template for the 2018 rate calculations, updated to reflect the transmission constraint rebalancing charge approved in Decision 20623-D01-2015.¹⁵ The 2018 rate calculations are included as Appendix C to this application, in tables C-1 through C-16.

21. The AESO explained that the 2018 rate calculations included in Appendix C to this application use the following inputs:

- the 2018 forecast revenue requirement discussed in section 2 of this application;
- the functionalization of wires costs approved for 2016 in Decision 2013-421;¹⁶ and
- the 2018 forecast billing determinants prepared by the AESO.

¹⁴ Proceeding 3473, Exhibit 0004.00.AESO-3473, Alberta Electric System Operator 2014 ISO Tariff Compliance Filing Pursuant to Decision 2014-242, revised as discussed in Exhibit 0044.01.AESO-3473, response to information request UCA-AESO-002.

¹⁵ Decision 20623-D01-2015: Alberta Electric System Operator, Application for AESO 2015 Transmission Constraint Rebalancing Charge and Approval to Amend the ISO Tariff Pursuant to Decisions 2013-135 and 3528-D01-2015, Proceeding 20623, November 5, 2015.

¹⁶ Proceeding 2718, Exhibit 0265.02.AESO-2718, Alberta Transmission System Cost Causation Study Update dated January 17, 2014, at page 7, Figure 6.

2018 forecast billing determinants

22. The rate calculations for the 2018 tariff update are based on the AESO's forecast of billing determinants for 2018. Billing determinants are calculated using historical and year-to-date ratios between DTS energy and each individual billing determinant. The table below provides a comparison of the forecast billing determinants in this tariff update to those forecast for 2017.¹⁷

Table 3. 2018 and 2017 forecast billing determinants

Rate DTS billing determinant	Units	2018 forecast	2017 forecast	Increase (Decrease)	
				Amount	%
Coincident metered demand	megawatt (MW)-months	97,697.5	93,476.3	4,221.2	4.5
Billing capacity					
• Total billing capacity	MW-months	156,984.4	152,426.2	4,558.2	3.0
• First (7.5×SF ¹⁸) MW	MW-months	36,498.4	36,455.7	42.7	0.1
• Next (9.5×SF) MW	MW-months	34,526.1	33,717.9	808.2	2.4
• Next (23×SF) MW	MW-months	43,063.7	42,113.0	950.7	2.3
• All remaining MW	MW-months	42,896.3	40,863.0	2,033.3	5.0
Highest metered demand	MW-months	122,370.3	117,123.7	5,246.6	4.5
Metered energy (all hours)	gigawatt hour	61,303	59,068	2,235	3.8
DTS market participants	Customer-months	5,309.0	5,337.9	(28.9)	(0.5)
Pool price	\$/MWh	42.58	40.99	\$1.59	3.9
Average Increase/(Decrease) weighted by revenue				3.6%	

23. Billing determinants have changed from the 2017 forecast on which currently-approved rates are based. As a result, the AESO's 2018 ISO updated rates represent an overall decrease of 5.1 per cent from the 2017 rates currently in place, including a decrease of 4.2 per cent to Rate DTS, and a decrease of 19.7 per cent to Rate STS.

24. The methodology approved in Decision 2010-606 also included a process to update MIL amounts approved in the most recent comprehensive tariff application by an escalation factor based on a composite of specified recent inflation indices. Accordingly, the AESO updated the composite inflation index used for developing the point of delivery cost function to 2018 using additional Statistics Canada cost index values and the most recent Conference Board of Canada forecast of the Alberta consumer price index. The AESO applied the resulting escalation factor of 1.032 to the 2014 Rate DTS MILs to determine the 2018 Rate DTS MILs, which resulted in a small increase to the 2018 MILs.

¹⁷ Exhibit 23065-X0006, application, PDF page 18.

¹⁸ SF or substation fraction.

25. The AESO submitted that the tariff updates proposed in this application are just and reasonable, and comply with the updated methodology approved by the Commission for the AESO's tariff. The AESO requested that the Commission approve this tariff update application, including (i) the updated amounts included as Appendix C to this application, and (ii) the proposed 2018 ISO tariff Rate DTS, Rate FTS, Rate DOS, Rate XOS, Rate XOM, Rate PSC, Rate STS, Rider J and Section 8 included as Appendix E to this application, effective January 1, 2018.

4 Commission findings

26. In Decision 2010-606, the Commission approved an approach that included filing comprehensive tariff applications every three years and, in conjunction with this, filing annual tariff updates. In that decision, the Commission considered that an annual revenue requirement and rate update may benefit customers by limiting potential misallocations that could occur if the AESO were to rely on Rider C exclusively to allocate periodic revenue and cost imbalances to its customers. In Decision 2010-606, the Commission approved the AESO's proposed methodology to complete annual tariff update filings between its major tariff applications, which was updated in Decision 22093-D02-2017.

27. The scope of the annual tariff updates includes the following three components:¹⁹

- an annual revenue requirement update using the approach to the wires cost forecast as described in section 2.2 of the Application, plus forecasts for ancillary services costs, losses costs and administration costs approved by the AESO Board for the forecast year;
- revised rate levels for each AESO rate calculated from the forecast revenue requirement and forecast billing determinants using rate calculations and rate design approved in the most recent comprehensive tariff application; and
- annual updates to investment amounts approved in the most recent comprehensive tariff reflecting an escalation factor based on the most recent Conference Board of Canada Alberta consumer price index (CPI).

28. The Commission finds that the AESO has properly included the 2018 wires costs for TFOs using the approach described in the AESO's 2014 ISO tariff application and 2013 ISO tariff update,²⁰ approved in Decision 2010-606, referred to in Decision 2014-242²¹ and updated in Decision 22093-D02-2017. In particular, the AESO used a TFO's last-approved tariff or its last applied-for costs in a compliance filing, plus 72 per cent of any increase or decrease included in a TFO's tariff application which reflected an update to the methodology originally approved in Decision 2010-606.

29. The Commission also notes that the AESO Board decision issued on August 8, 2017, approved forecast ancillary services costs, forecast losses costs, and the AESO's business plan and budget for 2018 which is included in the current application.

¹⁹ Decision 2010-606, paragraph 537.

²⁰ Exhibit 0026.00.AESO-2718, Alberta Electric System Operator 2014 ISO Tariff Application and 2013 ISO Tariff Update, dated July 19, 2013, at paragraphs 53-57.

²¹ Decision 2014-242, paragraph 43.

30. The Commission finds that the AESO's 2018 forecast billing determinants used in the tariff update application are reasonable when compared against billing determinants for the two prior years, recorded billing determinants for January to September 2017, and expectations for 2018.²²

31. In accordance with the methodology approved in Decision 2010-606, the AESO's 2018 ISO tariff update used the rate calculation methodology approved by the Commission in Decision 3473-D01-2015 (Errata) in conjunction with the AESO's 2014 ISO tariff application. Specifically, the AESO used the 2014 rate calculations provided in Appendix B of the AESO 2014 ISO tariff compliance filing as the template for the 2018 rate calculations.

32. The Commission notes that the AESO's 2018 ISO tariff update results in an overall decrease in rates of 5.1 per cent from the 2017 rates currently in place, including a decrease of 4.2 per cent to Rate DTS and a decrease of 19.7 per cent to Rate STS.

33. The Commission also finds that MIL amounts calculated based on a escalation factor of 1.032 applied to a composite of specified recent inflation indices is consistent with the rate calculation methodology already approved by the Commission in Decision 3473-D01-2015 (Errata); the investment amounts first approved in Decision 3473-D01-2015 (Errata), and updated in Decision 21302-D01-2016 and Decision 22093-D02-2017.

34. The Commission only received one SIP with respect to the application. In its SIP, the ADC supported the AESO's tariff update and implementation date. The Commission agrees with the ADC that tariff updates reduce future deferral account adjustments for the benefit of all load customers.

35. For these reasons, the AESO's 2018 ISO tariff update application, including the amounts set out in its Appendix C to the application²³ and the proposed 2018 ISO tariff Rate DTS, Rate FTS, Rate DOS, Rate XOS, Rate XOM, Rate PSC, Rate STS, Rider J and Section 8 of the ISO tariff in Appendix E,²⁴ is approved.

²² Exhibit 23065-X0006, application, Table 3-4- 2018 and 2017 Forecast, 2017, 2016 and 2015 Recorded Billing Determinants, PDF pages 18-19.

²³ Exhibit 23065-X0002, AESO 2017 ISO Tariff Update - Appendix C - Rate Calculations.

²⁴ Exhibit 23065-X0004, AESO 2017 ISO Tariff Update - Appendix E - 2017 ISO Tariff Rates, Rider J.

5 Order

36. It is hereby ordered that:

- (1) The Alberta Electric System Operator's 2018 ISO tariff update application is approved, effective January 1, 2018.

Dated on November 28, 2017.

Alberta Utilities Commission

(original signed by)

Anne Michaud
Commission Member

Appendix 1 – Proceeding participants

Name of organization (abbreviation) Company name of counsel or representative
Alberta Electric System Operator (AESO)
Alberta Direct Connect Consumers Association (ADC)

Alberta Utilities Commission
Commission panel A. Michaud, Commission Member
Commission staff C. Wall (Commission counsel) S. Albert (Commission counsel) M. McJannet C. Strasser S. Karim