# **Prepared For: Alberta Electric System Operator**

## Rider E Calibration Factor Calculation for the First Quarter of 2018

Prepared by:

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2017 December 20



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The Association of Professional Engineers, Geologists and Geophysicists of Alberta							



#### **CURRENT YEAR MONTHLY DETAIL**

2018 First Quarter Calibration Factor % =  $\frac{\text{Carryforward}_{\text{Dec 31, 2017}} + [(\text{Cost of Losses} - \text{Loss Revenues}) - \text{Rider E Revenues}]_{\text{Jan 1 - Dec 31, 2018}}}{[\text{Hourly Loss Factor Customer Volumes} \times \text{Hourly Pool Price}]_{\text{Jan 1 - Dec 31, 2018}}}$ 

The following table provides a summary of the AESO's projected year-end losses account balance for Rider E for January to December 2018.

				Calibrat	Other Information					
				Numerator V						
			Revenues Collected	Costs Less Revenue	Rider E	Outstanding	Monthly Loss Factor	Average	Monthly Loss	
Period	Data Source	Cost of Losses	Loss Factors	(Over Collected) / Under Collected	Refunded/ (Collected)	Variance (Over Collected) / Under Collected	Customer Volumes  x Pool Price	Monthly Pool Price	Factor Customer Volumes	Monthly Loss Volumes
Pellou	Source	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$/MWh	millions MWh	millions MWh
Carryforward Dec 31, 2017		ψπimone	ψ mmone	ψ mmone	ψπιιιοπο	2.3	ψπιποπο	φ,νντ	THIIIIONG WWW	Trimicono ivivvii
January 2018	Forecast	8.0	7.8	0.2	0.0	0.2	222.34	37.23	5.93	0.21
ebruary 2018	Forecast	5.8	5.9	(0.2)	0.0	(0.2)	168.53	32.16	5.20	0.18
March 2018	Forecast	6.6	7.1	(0.4)	0.0	(0.4)	197.34	35.41	5.54	0.19
April 2018	Forecast	15.2	16.5	(1.2)	0.0	(1.2)	450.24	86.62	5.02	0.17
May 2018	Forecast	9.3	9.8	(0.5)	0.0	(0.5)	268.75	50.87	5.14	0.18
lune 2018	Forecast	6.9	7.8	(0.9)	0.0	(0.9)	212.48	40.83	5.01	0.16
luly 2018	Forecast	10.3	10.3	(0.0)	0.0	(0.0)	308.31	52.43	5.53	0.19
August 2018	Forecast	9.6	9.9	(0.3)	0.0	(0.3)	295.35	51.30	5.57	0.18
September 2018	Forecast	6.8	6.4	0.4	0.0	0.4	195.35	36.25	5.32	0.19
October 2018	Forecast	8.4	7.7	0.8	0.0	0.8	226.98	42.12	5.31	0.20
November 2018	Forecast	7.6	7.4	0.2	0.0	0.2	200.00	36.20	5.37	0.21
December 2018	Forecast	16.7	15.4	1.3	0.0	1.3	455.49	72.87	6.00	0.22
Annual 2018		111.4	111.9	(0.6)	0.0	(0.6)	3201.16	47.86	64.91	2.28
Total Balance						1.7	3,201.16			
Calibration Factor Calculation Outputs: Rider E Calibration Factor Q1 2018							0.05%	(Refund)/Charge		

#### Notes:

- 1. The Rider E Calibration Factor will apply to all loss factor customers receiving service under Rates STS, DOS, XOS, and IOS as provided on the Rider E rate sheet.
- 2. If the Rider E Calibration Factor for Q1 remained in place during Q1, Q2, Q3, Q4, it would collect the variance between cost of losses and revenues by the end of 2018, as currently forecasted.
- 3. Forecast amounts in the above table and calculation reflect the AESO's best estimates at the time of preparation. The values represent forecasts and estimates only, and final values will differ.
- 4. Actual amounts in the above table are subject to revision in future periods due to interim and final settlement and to other adjustments.
- 5. The calibration factor calculation itself is based on summing hourly costs, revenues, and loss factor customer volumes x pool price, and the same result will not be obtained by using the monthly values presented.
- 6. Numbers may not add due to rounding.
- 7. "NA" means "not applicable".
- 8. The revenue, cost and Rider E amounts are shown on a production month basis.
- 9. "Revenues Collected Loss Factors" for 2017 (on page 2) reflect 2017 loss factors effective January 1, 2017, as posted on the AESO website on October 31, 2017.

### PRIOR YEARS MONTHLY DETAIL

The following table provides a summary of the AESO's losses account balance for Rider E for the period 2006 to 2017.

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				Calibrati						
		Numerator Values Denominator Value						Other Information		
			Revenues	Costs Less	aiues		Denominator Value			
			Collected	Revenue	Rider E	Outstanding	Monthly Loss Factor	Average	Monthly Loss	
	Data	Cost of	Loss	(Over Collected) /	Refunded/	Variance	Customer Volumes	Monthly	Factor Customer	Monthly Loss
Period	Source	Losses	Factors	Under Collected	(Collected)	(Over Collected) / Under Collected	× Pool Price	Pool Price	Volumes	Volumes
		\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$/MWh	millions MWh	millions MWh
Annual 2006 to 2014		1,530.0	1,584.4	(54.4)	60.7	6.3	NA	67.42	523.77	22.91
January 2015	Actual	7.5	7.5	(0.1)	0.0	(0.1)	NA	33.95	5.67	0.21
February 2015	Actual	6.4	6.2	0.1	0.0	0.2	NA	32.83	4.97	0.19
March 2015	Actual	4.1	4.1	0.0	0.0	0.0	NA	20.65	5.26	0.20
April 2015	Actual	3.7	3.7	0.0	0.0	0.0	NA	20.52	4.87	0.18
May 2015	Actual	8.1	9.2	(1.1)	0.1	(1.0)	NA	53.93	4.86	0.16
June 2015	Actual	16.6	17.7	(1.2)	0.1	(1.1)	NA	97.31	4.95	0.18
July 2015	Actual	4.6	4.6	0.0	(0.2)	(0.2)	NA	23.15	5.20	0.20
August 2015	Actual	6.5	6.8	(0.3)	(0.3)	(0.6)	NA	34.11	5.13	0.18
September 2015	Actual	4.3	4.2	0.1	(0.2)	(0.0)	NA	20.85	5.13	0.20
October 2015	Actual	4.6	4.5	0.2	0.1	0.3	NA	21.47	5.42	0.21
November 2015	Actual	4.4	4.3	0.1	0.1	0.3	NA	21.17	5.93	0.20
December 2015	Actual	5.0	4.5	0.5	0.1	0.6	NA	20.93	6.20	0.24
Annual 2015		75.8	77.4	(1.6)	(0.1)	(1.6)	NA	33.41	63.61	2.36
January 2016	Actual	5.0	4.7	0.3	(0.1)	0.2	NA	22.25	5.63	0.21
February 2016	Actual	3.2	3.3	(0.1)	(0.1)	(0.1)	NA	17.22	5.03	0.18
March 2016	Actual	2.6	2.7	(0.1)	(0.1)	(0.1)	NA	14.79	5.11	0.17
April 2016	Actual	2.3	2.3	(0.1)	(0.3)	(0.3)	NA	13.63	4.65	0.16
May 2016	Actual	2.7	2.7	(0.0)	(0.3)	(0.4)	NA	15.89	4.70	0.16
June 2016	Actual	2.7	2.8	(0.1)	(0.3)	(0.4)	NA	15.44	4.80	0.17
July 2016	Actual	3.4	3.6	(0.2)	(0.5)	(0.7)	NA	18.21	5.24	0.18
August 2016	Actual	3.4	3.6	(0.2)	(0.5)	(0.8)	NA	17.90	5.45	0.18
September 2016	Actual	3.3	3.4	(0.2)	(0.5)	(0.7)	NA	17.70	5.17	0.17
October 2016	Actual	4.6	5.0	(0.4)	(0.4)	(0.8)	NA	25.37	5.26	0.16
November 2016	Actual	3.2	3.4	(0.2)	(0.2)	(0.4)	NA	16.32	5.27	0.19
December 2016	Actual	5.0	5.3	(0.3)	(0.4)	(0.7)	NA	24.33	5.90	0.20
Annual 2016		41.3	42.8	(1.5)	(3.7)	(5.2)	NA	18.26	62.21	2.13
January 2017	Actual	5.2	4.8	0.4	0.1	0.5	NA	23.96	5.83	0.21
February 2017	Actual	4.0	4.0	0.1	0.1	0.2	NA	22.18	5.11	0.18
March 2017	Actual	4.2	4.1	0.1	0.1	0.3	NA	21.01	5.44	0.20
April 2017	Actual	3.7	3.4	0.3	0.1	0.4	NA	19.10	4.92	0.19
May 2017	Actual	4.4	4.0	0.4	0.1	0.6	NA	21.90	5.04	0.20
June 2017	Actual	3.3	3.0	0.2	0.1	0.3	NA	16.78	4.91	0.18
July 2017	Actual	4.8	4.9	(0.1)	0.0	(0.1)	NA	26.96	5.43	0.17
August 2017	Actual	4.3	4.5	(0.2)	0.0	(0.2)	NA	24.57	5.47	0.17
September 2017	Actual	3.8	3.8	0.0	0.0	0.0	NA	22.11	5.23	0.16
October 2017	Actual	3.7	3.6	0.0	0.1	0.1	NA	20.45	5.24	0.17
November 2017	Forecast	5.3	4.9	0.4	0.1	0.5	NA	25.03	5.37	0.21
December 2017	Forecast	6.6	6.3	0.3	0.1	0.4	NA	29.27	6.00	0.22
Annual 2017		53.3	51.3	2.0	0.9	2.9	NA	22.78	63.99	2.27