## Prepared For: Alberta Electric System Operator

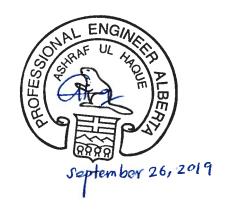
# Rider E Calibration Factor Calculation for the Fourth Quarter of 2019

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

Prepared For: Alberta Electric System Operator Rider E Calibration Factor Calculation For the Fourth Quarter of 2019

Page 1 of 2

2019 Foutrh Quarter Calibration Factor % = Carryforward Dec 31, 2018 + [(Cost of Losses - Loss Revenues) - Rider E Revenues] Jan 1 - Dec 31, 2019 [Hourly Loss Factor Customer Volumes × Hourly Pool Price] Oct 1 - Dec 31, 2019

The following table provides a summary of the AESO's projected year-end losses account balance for Rider E for January to December 2019.

Period S Carryforward Dec 31, 2018  anuary 2019 A February 2019 A March 2019 A April 2019 A	Data Source	Cost of Losses \$ millions	Revenues Collected Loss Factors \$ millions	Numerator Va Costs Less Revenue (Over Collected) /	Rider E Refunded/	Outstanding	Denominator Value		Other Information	
Period S Carryforward Dec 31, 2018  anuary 2019 A February 2019 A March 2019 A April 2019 A		Losses	Collected Loss Factors	Revenue (Over Collected) /		Outstanding	Monthly Long Factor			
anuary 2019 A February 2019 A March 2019 A April 2019 A		\$ millions	\$ millions	Under Collected	(Collected)	Variance (Over Collected) / Under Collected	Monthly Loss Factor Customer Volumes × Pool Price	Average Monthly Pool Price	Monthly Loss Factor Customer Volumes	Monthly Loss Volumes
anuary 2019 A ebruary 2019 A larch 2019 A pril 2019 A			ψorio	\$ millions	\$ millions	\$ millions	\$ millions	\$/MWh	millions MWh	millions MWh
ebruary 2019 A March 2019 A April 2019 A						(0.1)				
March 2019 A April 2019 A	Actual	6.7	6.7	0.1	1.1	1.2	N/A	37.83	5.69	0.17
oril 2019 A	Actual	17.6	19.3	(1.7)	3.1	1.4	N/A	109.36	5.68	0.16
	Actual	10.4	8.5	1.9	1.9	3.7	N/A	65.04	5.63	0.16
	Actual	6.1	6.6	(0.5)	0.8	0.4	N/A	40.80	4.86	0.15
ay 2019 A	Actual	13.0	10.8	2.2	1.6	3.8	N/A	74.78	4.92	0.16
ne 2019 A	Actual	9.5	8.4	1.1	1.1	2.3	N/A	53.52	4.83	0.16
ly 2019 A	Actual	6.2	5.2	1.0	0.2	1.2	N/A	40.99	5.12	0.14
igust 2019 Fo	Forecast	6.9	5.9	1.0	0.2	1.2	N/A	45.40	5.29	0.15
eptember 2019 Fo	Forecast	5.9	4.5	1.4	0.1	1.5	N/A	39.48	4.92	0.15
ctober 2019 Fo	Forecast	8.4	7.3	1.1	0.0	1.1	298.35	53.50	5.46	0.15
ovember 2019 Fo	Forecast	7.2	5.9	1.2	0.0	1.2	239.39	41.76	5.65	0.17
	Forecast	9.4	8.2	1.2	0.0	1.2	337.31	53.43	6.21	0.17
nnual 2019		107.4	97.3	10.1	10.1	20.2	875.05	54.66	64.27	1.87
otal Balance						20.1	875.05			

#### 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 Q4 remained in place during Q4, it would collect the variance between cost of losses and revenues by the end of 2019, 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.

### PRIOR YEARS MONTHLY DETAIL

Prepared For: Alberta Electric System Operator Rider E Calibration Factor Calculation For the Fourth Quarter of 2019 Page 2 of 2

The following table provides a summary of the AESO's losses account balance for Rider E for the period 2006 to 2018.

				Calibrat	ion Factor Calcı	Other to farmer the con-				
		Numerator Values					<b>Denominator Value</b>	Other Information		
			Revenues	Costs Less						
			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
Annual 2006 to 2015		\$ millions <b>1,605.8</b>	\$ millions <b>1,661.7</b>	\$ millions <b>(56.0)</b>	\$ millions <b>60.6</b>	\$ millions 4.6	\$ millions NA	\$/MWh 64.02	millions MWh 587.37	millions MWh 25.27
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)	(0.3)	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	0.2	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	0.5	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	3.7	3.8	(0.0)	0.0	(0.0)	NA	22.11	5.23	0.16
October 2017	Actual	3.7	3.6	0.1	0.1	0.2	NA	20.45	5.24	0.17
November 2017	Actual	5.0	4.9	0.1	0.1	0.2	NA	25.03	5.49	0.20
December 2017	Actual	4.0	4.4	(0.3)	0.1	(0.3)	NA	21.99	5.84	0.18
Annual 2017		50.4	49.3	1.1	0.8	2.0	NA	22.17	63.96	2.21
January 2018	Actual	7.4	8.2	(0.9)	(0.1)	(1.0)	NA	40.83	5.72	0.18
February 2018	Actual	4.9	5.6	(0.7)	(0.1)	(0.7)	NA	31.32	5.24	0.15
March 2018	Actual	5.2	6.0	(8.0)	(0.1)	(0.9)	NA	32.27	5.43	0.16
April 2018	Actual	6.6	7.2	(0.7)	(0.1)	(0.8)	NA	40.55	5.04	0.16
May 2018	Actual	10.8	11.9	(1.1)	(0.2)	(1.3)	NA	63.77	5.06	0.15
June 2018	Actual	10.4	11.0	(0.6)	(0.2)	(0.8)	NA	63.44	4.97	0.15
July 2018	Actual	9.6	10.6	(1.0)	0.3	(0.7)	NA	58.45	5.32	0.14
August 2018	Actual	11.2	12.5	(1.3)	0.4	(0.9)	NA	68.80	5.29	0.14
September 2018	Actual	5.1	5.5	(0.4)	0.2	(0.2)	NA	36.11	4.92	0.13
October 2018	Actual	9.7	10.7	(1.1)	2.9	1.9	NA	63.48	5.46	0.14
November 2018	Actual	9.7	10.3	(0.7)	2.8	2.1	NA	59.21	5.61	0.16
December 2018	Actual	7.9	8.2	(0.3)	2.3	2.0	NA	43.99	6.13	0.18
Annual 2018		98.3	107.8	(9.5)	8.0	(1.5)	NA	50.19	64.19	1.84

Carryforward <sub>Dec 31, 2018</sub> (0.1)