



Western Area Power Administration Proposed Transmission and Ancillary Services Rate Adjustment Process

Proposed Energy Imbalance Service Rate

Sample Energy Imbalance Calculations

Deviations within +/- 1.5% (with a minimum of 2 MW)

Deviations within +/- 1.5 percent (with a minimum of 2 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of Transmission Customer's scheduled transaction(s) will be netted on a monthly basis and settled financially, at the end of the month, at 100 percent of the average incremental cost for the month.



Deviations within +/- 1.5 percent (with a minimum of 2 MW)

Highlighted imbalance is less than 2 MW. Imbalance will be netted monthly and settled financially at 100% of the average incremental cost for the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment																		
DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 1	1	30.655	29.00	1.655	5.707	1.655	0	0	1.655	0	0	23.98	23.32	\$23.98	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	2	28.907	29.00	-0.093	-0.321	-0.093	0	0	-0.093	0	0	23.14	21.44	\$23.14	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	3	28.203	29.00	-0.797	-2.748	-0.797	0	0	-0.797	0	0	24.33	21.54	\$24.33	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	4	27.679	29.00	-1.321	-4.555	-1.321	0	0	-1.321	0	0	24.27	26.54	\$26.54	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	5	27.451	29.00	-1.549	-5.341	-1.549	0	0	-1.549	0	0	24.51	23.53	\$24.51	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	6	27.763	29.00	-1.237	-4.266	-1.237	0	0	-1.237	0	0	24.77	22.87	\$24.77	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	7	29.164	29.00	0.164	0.566	0.164	0	0	0.164	0	0	51.97	57.96	\$57.96	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	8	32.051	29.00	3.051	10.521	0	3.051	0	0	3.051	0	55.44	59.74	\$59.74	\$200.49	\$0.00	\$0.00	\$0.00
Day 1	9	35.231	37.00	-1.769	-4.781	-1.769	0	0	-1.769	0	0	52.65	58.97	\$58.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	10	36.494	37.00	-0.506	-1.368	-0.506	0	0	-0.506	0	0	53.48	56.88	\$56.88	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	11	37.488	37.00	0.488	1.319	0.488	0	0	0.488	0	0	50.71	59.97	\$59.97	\$0.00	\$0.00	\$0.00	\$0.00

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations within +/- 1.5 percent (with a minimum of 2 MW)

Highlighted imbalance is within the +/- 1.5 percent bandwidth. This imbalance is netted on a monthly basis and settled financially, at the end of the month, at 100 percent of the average incremental cost for the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment																		
DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/- 7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 1	11	37.488	37.00	0.488	1.319	0.488	0	0	0.488	0	0	50.71	59.97	\$59.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	12	37.778	37.00	0.778	2.103	0.778	0	0	0.778	0	0	55.32	53.47	\$55.32	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	13	37.664	37.00	0.664	1.795	0.664	0	0	0.664	0	0	50.47	59.25	\$59.25	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	14	36.565	37.00	-0.435	-1.176	-0.435	0	0	-0.435	0	0	51.38	51.22	\$51.38	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	15	35.946	37.00	-1.054	-2.849	-1.054	0	0	-1.054	0	0	49.25	49.16	\$49.25	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	16	140.050	138.00	2.050	1.486	0	2.05	0	2.05	0	0	48.22	55.24	\$55.24	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	17	35.815	37.00	-1.185	-3.203	-1.185	0	0	-1.185	0	0	50.11	57.49	\$57.49	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	18	38.668	37.00	1.668	4.508	1.668	0	0	1.668	0	0	51.36	50.33	\$51.36	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	19	41.702	37.00	4.702	12.708	0	4.702	0	0	4.702	0	52.33	52.33	\$52.33	\$270.66	\$0.00	\$0.00	\$0.00
Day 1	20	41.430	37.00	4.430	11.973	0	4.43	0	0	4.43	0	50.10	54.65	\$54.65	\$266.31	\$0.00	\$0.00	\$0.00
Day 1	21	40.167	37.00	3.167	8.559	0	3.167	0	0	3.167	0	49.75	58.74	\$58.74	\$204.63	\$0.00	\$0.00	\$0.00
Day 1	22	39.241	37.00	2.241	6.057	0	2.241	0	0	2.241	0	48.99	57.24	\$57.24	\$141.10	\$0.00	\$0.00	\$0.00
Day 1	23	37.379	37.00	0.379	1.024	0.379	0	0	0.379	0	0	23.88	23.21	\$23.88	\$0.00	\$0.00	\$0.00	\$0.00

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations within +/- 1.5 percent (with a minimum of 2 MW)

Netted MW Settled Financially at 100% of the Average Incremental Cost for the Month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment																		
DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 1	1	30.655	29.00	1.655	5.707	1.655	0	0	1.655	0	0	23.98	23.32	\$23.98	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	2	28.907	29.00	-0.093	-0.321	-0.093	0	0	-0.093	0	0	23.14	21.44	\$23.14	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	3	28.203	29.00	-0.797	-2.748	-0.797	0	0	-0.797	0	0	24.33	21.54	\$24.33	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	4	27.679	29.00	-1.321	-4.555	-1.321	0	0	-1.321	0	0	24.27	26.54	\$26.54	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	5	27.451	29.00	-1.549	-5.341	-1.549	0	0	-1.549	0	0	24.51	23.53	\$24.51	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	6	27.763	29.00	-1.237	-4.266	-1.237	0	0	-1.237	0	0	24.77	22.87	\$24.77	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	7	29.164	29.00	0.164	0.566	0.164	0	0	0.164	0	0	51.97	57.96	\$57.96	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	9	35.231	37.00	-1.769	-4.781	-1.769	0	0	-1.769	0	0	52.65	58.97	\$58.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	10	36.494	37.00	-0.506	-1.368	-0.506	0	0	-0.506	0	0	53.48	56.88	\$56.88	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	11	37.488	37.00	0.488	1.319	0.488	0	0	0.488	0	0	50.71	59.97	\$59.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	12	37.778	37.00	0.778	2.103	0.778	0	0	0.778	0	0	55.32	53.47	\$55.32	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	13	37.664	37.00	0.664	1.795	0.664	0	0	0.664	0	0	50.47	59.25	\$59.25	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	14	36.565	37.00	-0.435	-1.176	-0.435	0	0	-0.435	0	0	51.38	51.22	\$51.38	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	15	35.946	37.00	-1.054	-2.849	-1.054	0	0	-1.054	0	0	49.25	49.16	\$49.25	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	16	140.050	138.00	2.050	1.486	0	2.05	0	2.05	0	0	48.22	55.24	\$55.24	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	17	35.815	37.00	-1.185	-3.203	-1.185	0	0	-1.185	0	0	50.11	57.49	\$57.49	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	18	38.668	37.00	1.668	4.508	1.668	0	0	1.668	0	0	51.36	50.33	\$51.36	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	19	41.702	37.00	4.702	12.708	0	4.702	0	0	4.702	0	52.33	52.33	\$52.33	\$270.66	\$0.00	\$0.00	\$0.00
Day 1	20	41.430	37.00	4.430	11.973	0	4.43	0	0	4.43	0	50.10	54.65	\$54.65	\$266.31	\$0.00	\$0.00	\$0.00
Day 1	21	40.167	37.00	3.167	8.559	0	3.167	0	0	3.167	0	49.75	58.74	\$58.74	\$204.63	\$0.00	\$0.00	\$0.00
Day 1	22	39.241	37.00	2.241	6.057	0	2.241	0	0	2.241	0	48.99	57.24	\$57.24	\$141.10	\$0.00	\$0.00	\$0.00
Day 1	23	37.379	37.00	0.379	1.024	0.379	0	0	0.379	0	0	23.88	23.21	\$23.88	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	24	34.762	37.00	-2.238	-6.049	0	-2.238	0	0	-2.238	0	22.97	24.13	\$24.13	\$0.00	-\$48.60	\$0.00	\$0.00
Day 2	1	24.249	29.00	-4.751	-16.383	0	-4.751	0	0	-4.751	0	23.55	23.32	\$23.55	\$0.00	-\$100.70	\$0.00	\$0.00
Day 2	2	22.444	29.00	-6.556	-22.607	0	-6.556	0	0	-6.556	0	21.37	21.37	\$21.37	\$0.00	-\$126.09	\$0.00	\$0.00
Day 2	3	21.586	29.00	-7.414	-25.566	0	-7.414	0	0	-7.414	0	22.74	21.54	\$22.74	\$0.00	-\$151.73	\$0.00	\$0.00
Day 2	4	21.177	29.00	-7.823	-26.976	0	-7.823	0	0	-7.823	0	24.63	26.54	\$26.54	\$0.00	-\$186.86	\$0.00	\$0.00
Day 2	5	20.822	29.00	-8.178	-28.200	0	-8.178	0	0	-8.178	0	25.04	23.53	\$25.04	\$0.00	-\$184.30	\$0.00	\$0.00
Day 2	6	17.560	29.00	-11.440	-39.448	0	0	-11.44	0	-11.44	0	24.99	22.87	\$24.99	\$0.00	\$0.00	\$0.00	-\$183.35
Day 2	7	22.910	29.00	-6.090	-21.000	0	-6.09	0	0	-6.09	0	45.62	57.96	\$57.96	\$0.00	-\$317.68	\$0.00	\$0.00
Day 2	8	27.082	29.00	-1.918	-6.614	-1.918	0	0	-1.918	0	0	48.22	59.74	\$59.74	\$0.00	\$0.00	\$0.00	\$0.00
									Total MW +/-1.5% =			Average Incremental Cost		\$45.59				
									\$ for +/- 1.5% Band =									

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations greater than +/- 1.5% up to 7.5% (or greater than 2 MW up to 10 MW)

Deviations greater than +/- 1.5% up to 7.5% (or greater than 2 MW up to 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of Transmission Customer's scheduled transaction(s) will be settled financially, at the end of each month, at 110 percent of incremental cost when energy taken by the Transmission Customer in a schedule hour is greater than the energy scheduled or 90 percent of incremental cost when energy taken by a Transmission Customer in a schedule hour is less than the scheduled amount.



Deviations greater than +/- 1.5% up to 7.5% (or greater than 2 MW up to 10 MW)

Highlighted imbalance is within the greater than +/-1.5% up to +/-7.5% bandwidth or greater than 2 MW up to 10 MW - energy taken is greater than scheduled so charged at 110 percent of incremental cost and will be settled financially at the end of the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment

DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 1	1	30.655	29.00	1.655	5.707	1.655	0	0	1.655	0	0	23.98	23.32	\$23.98	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	2	28.907	29.00	-0.093	-0.321	-0.093	0	0	-0.093	0	0	23.14	21.44	\$23.14	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	3	28.203	29.00	-0.797	-2.748	-0.797	0	0	-0.797	0	0	24.33	21.54	\$24.33	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	4	27.679	29.00	-1.321	-4.555	-1.321	0	0	-1.321	0	0	24.27	26.54	\$26.54	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	5	27.451	29.00	-1.549	-5.341	-1.549	0	0	-1.549	0	0	24.51	23.53	\$24.51	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	6	27.763	29.00	-1.237	-4.266	-1.237	0	0	-1.237	0	0	24.77	22.87	\$24.77	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	7	29.164	29.00	0.164	0.566	0.164	0	0	0.164	0	0	51.97	57.96	\$57.96	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	8	32.051	29.00	3.051	10.521	0	3.051	0	0	3.051	0	55.44	59.74	\$59.74	\$200.49	\$0.00	\$0.00	\$0.00
Day 1	9	35.231	37.00	-1.769	-4.781	-1.769	0	0	-1.769	0	0	52.65	58.97	\$58.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	10	36.494	37.00	-0.506	-1.368	-0.506	0	0	-0.506	0	0	53.48	56.88	\$56.88	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	11	37.488	37.00	0.488	1.319	0.488	0	0	0.488	0	0	50.71	59.97	\$59.97	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	12	37.778	37.00	0.778	2.103	0.778	0	0	0.778	0	0	55.32	53.47	\$55.32	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	13	37.664	37.00	0.664	1.795	0.664	0	0	0.664	0	0	50.47	59.25	\$59.25	\$0.00	\$0.00	\$0.00	\$0.00

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations greater than +/- 1.5% up to 7.5% (or greater than 2 MW up to 10 MW)

Highlighted imbalance is within the greater than +/-1.5% up to +/-7.5% bandwidth or greater than 2 MW up to 10 MW - energy taken is less than scheduled so is charged at 90 percent of incremental cost and will be settled financially at the end of the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment

DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day	
Day 1	22	39.241	37.00	2.241	6.057	0	2.241	0	0	2.241	0	48.99	57.24	\$57.24	\$141.10	\$0.00	\$0.00	\$0.00
Day 1	23	37.379	37.00	0.379	1.024	0.379	0	0	0.379	0	0	23.88	23.21	\$23.88	\$0.00	\$0.00	\$0.00	\$0.00
Day 1	24	34.762	37.00	-2.238	-6.049	0	-2.238	0	0	-2.238	0	22.97	24.13	\$24.13	\$0.00	-\$48.60	\$0.00	\$0.00
Day 2	1	24.249	29.00	-4.751	-16.383	0	-4.751	0	0	-4.751	0	23.55	23.32	\$23.55	\$0.00	-\$100.70	\$0.00	\$0.00
Day 2	2	22.444	29.00	-6.556	-22.607	0	-6.556	0	0	-6.556	0	21.37	21.37	\$21.37	\$0.00	-\$126.09	\$0.00	\$0.00
Day 2	3	21.586	29.00	-7.414	-25.566	0	-7.414	0	0	-7.414	0	22.74	21.54	\$22.74	\$0.00	-\$151.73	\$0.00	\$0.00
Day 2	4	21.177	29.00	-7.823	-26.976	0	-7.823	0	0	-7.823	0	24.63	26.54	\$26.54	\$0.00	-\$186.86	\$0.00	\$0.00
Day 2	5	20.822	29.00	-8.178	-28.200	0	-8.178	0	0	-8.178	0	25.04	23.53	\$25.04	\$0.00	-\$184.30	\$0.00	\$0.00
Day 2	6	17.560	29.00	-11.440	-39.448	0	0	-11.44	0	0	-11.44	24.99	22.87	\$24.99	\$0.00	\$0.00	\$0.00	-\$183.35
Day 2	7	22.910	29.00	-6.090	-21.000	0	-6.09	0	0	-6.09	0	45.62	57.96	\$57.96	\$0.00	-\$317.68	\$0.00	\$0.00
Day 2	8	27.082	29.00	-1.918	-6.614	-1.918	0	0	-1.918	0	0	48.22	59.74	\$59.74	\$0.00	\$0.00	\$0.00	\$0.00

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations greater than +/- 1.5% up to 7.5% (or greater than 2 MW up to 10 MW)

Highlighted imbalance is less than +/-7.5% - energy taken is greater than scheduled so is charged at 110 percent of incremental cost and will be settled financially at the end of the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment																		
DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 2	3	21.586	29.00	-7.414	-25.566	0	-7.414	0	0	-7.414	0	22.74	21.54	\$22.74	\$0.00	-\$151.73	\$0.00	\$0.00
Day 2	4	21.177	29.00	-7.823	-26.976	0	-7.823	0	0	-7.823	0	24.63	26.54	\$26.54	\$0.00	-\$186.86	\$0.00	\$0.00
Day 2	5	20.822	29.00	-8.178	-28.200	0	-8.178	0	0	-8.178	0	25.04	23.53	\$25.04	\$0.00	-\$184.30	\$0.00	\$0.00
Day 2	6	17.560	29.00	-11.440	-39.448	0	0	-11.44	0	0	-11.44	24.99	22.87	\$24.99	\$0.00	\$0.00	\$0.00	-\$183.35
Day 2	7	22.910	29.00	-6.090	-21.000	0	-6.09	0	0	-6.09	0	45.62	57.96	\$57.96	\$0.00	-\$317.68	\$0.00	\$0.00
Day 2	8	27.082	29.00	-1.918	-6.614	-1.918	0	0	-1.918	0	0	48.22	59.74	\$59.74	\$0.00	\$0.00	\$0.00	\$0.00
Day 2	9	150.615	140.50	10.115	7.199	0	0	10.115	0	10.115	0	54.31	58.97	\$58.97	\$656.13	\$0.00	\$0.00	\$0.00
Day 2	10	32.437	37.00	-4.563	-12.332	0	-4.563	0	0	-4.563	0	51.89	56.88	\$56.88	\$0.00	-\$233.59	\$0.00	\$0.00
Day 2	11	32.502	37.00	-4.498	-12.157	0	-4.498	0	0	-4.498	0	53.17	59.97	\$59.97	\$0.00	-\$242.77	\$0.00	\$0.00
Day 2	12	32.250	37.00	-4.750	-12.838	0	-4.75	0	0	-4.75	0	53.14	53.47	\$53.47	\$0.00	-\$228.58	\$0.00	\$0.00
Day 2	13	39.186	29.00	10.186	35.124	0	0	10.186	0	0	10.186	52.81	59.25	\$59.25	\$0.00	\$0.00	\$763.57	\$0.00
Day 2	14	33.866	29.00	4.866	16.779	0	4.866	0	0	4.866	0	54.89	51.22	\$54.89	\$293.80	\$0.00	\$0.00	\$0.00
Day 2	15	33.347	29.00	4.347	14.990	0	4.347	0	0	4.347	0	52.77	49.16	\$52.77	\$252.33	\$0.00	\$0.00	\$0.00

These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.



Deviations greater than +/- 7.5% (or 10 MW)

Deviations greater than +/- 7.5% (or 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be settled financially, at the end of each month, at 125 percent of the highest incremental cost that occurs that day for energy taken by the Transmission Customer in a scheduled hour that is greater than the energy scheduled, or 75 percent of the lowest incremental cost that occurs that day when energy taken by a Transmission Customer is less than the scheduled amount.



Deviations greater than +/- 7.5% (or 10 MW)

Highlighted imbalance is greater than +/-7.5% or 10 MW - energy taken is greater than scheduled so is charged at 125 percent of the highest incremental cost that occurs that day and will be settled financially at the end of the month.

DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 2	9	150.615	140.50	10.115	7.199	0	0	10.115	0	10.115	0	54.31	58.97	\$58.97	\$656.13	\$0.00	\$0.00	\$0.00
Day 2	10	32.437	37.00	-4.563	-12.332	0	-4.563	0	0	-4.563	0	51.89	56.88	\$56.88	\$0.00	-\$233.59	\$0.00	\$0.00
Day 2	11	32.502	37.00	-4.498	-12.157	0	-4.498	0	0	-4.498	0	53.17	59.97	\$59.97	\$0.00	-\$242.77	\$0.00	\$0.00
Day 2	12	32.250	37.00	-4.750	-12.838	0	-4.75	0	0	-4.75	0	53.14	53.47	\$53.47	\$0.00	-\$228.58	\$0.00	\$0.00
Day 2	13	39.186	29.00	10.186	35.124	0	0	10.186	0	0	10.186	52.81	59.25	\$59.25	\$0.00	\$0.00	\$763.57	\$0.00
Day 2	14	33.866	29.00	4.866	16.779	0	4.866	0	0	4.866	0	54.89	51.22	\$54.89	\$293.80	\$0.00	\$0.00	\$0.00
Day 2	15	33.347	29.00	4.347	14.990	0	4.347	0	0	4.347	0	52.77	49.16	\$52.77	\$252.33	\$0.00	\$0.00	\$0.00
Day 2	16	35.340	29.00	6.340	21.862	0	6.34	0	0	6.34	0	52.65	55.24	\$55.24	\$385.24	\$0.00	\$0.00	\$0.00
Day 2	17	43.480	37.00	6.480	17.514	0	6.48	0	0	6.48	0	53.76	57.49	\$57.49	\$409.79	\$0.00	\$0.00	\$0.00
Day 2	18	43.573	37.00	6.573	17.765	0	6.573	0	0	6.573	0	52.76	50.33	\$52.76	\$381.47	\$0.00	\$0.00	\$0.00
Day 2	19	41.992	37.00	4.992	13.492	0	4.992	0	0	4.992	0	53.48	52.33	\$53.48	\$293.67	\$0.00	\$0.00	\$0.00

Highest Incremental Cost for the Day



These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.

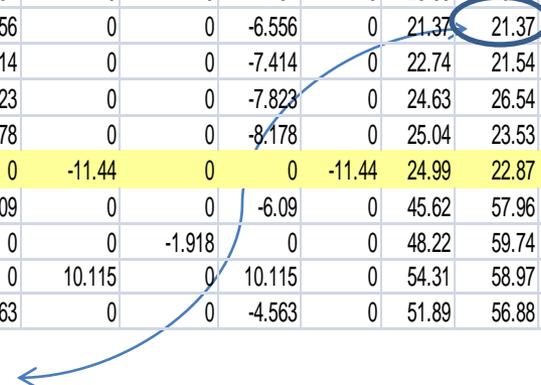


Deviations greater than +/- 7.5% (or 10 MW)

Highlighted imbalance is over +/-7.5% or 10 MW - energy taken is less than scheduled so is charged at 75 percent of the lowest incremental cost that occurs that day and will be settled financially at the end of the month.

Sample Energy Imbalance Calculations - Proposed Ancillary Service Rate Adjustment																		
DATE	HR	MW Energy Taken	MW Scheduled	IMBALANCE = MW Taken less MW Scheduled	% Deviation	Less than 2 MW Deviation	2 to 10 MW Deviation	Greater than 10 MW Deviation	MW +/- 1.5 % Band	MW for +/- 1.5% to +/- 7.5 % Band	MW for > +/-7.5 % Band	Index 1	Index 2	Incremental Cost (Higher of the two Indexes)	\$ for +1.5% to +7.5% Band at 110% of Inc Cost	\$ for -1.5% to -7.5% Band at 90% of Inc Cost	\$ for > +7.5 % Band at 125% of Highest Inc Cost for Day	\$ for < -7.5 % Band at 75% Lowest Inc Cost for Day
Day 2	1	24.249	29.00	-4.751	-16.383	0	-4.751	0	0	-4.751	0	23.55	23.32	\$23.55	\$0.00	-\$100.70	\$0.00	\$0.00
Day 2	2	22.444	29.00	-6.556	-22.607	0	-6.556	0	0	-6.556	0	21.37	21.37	\$21.37	\$0.00	-\$126.09	\$0.00	\$0.00
Day 2	3	21.586	29.00	-7.414	-25.566	0	-7.414	0	0	-7.414	0	22.74	21.54	\$22.74	\$0.00	-\$151.73	\$0.00	\$0.00
Day 2	4	21.177	29.00	-7.823	-26.976	0	-7.823	0	0	-7.823	0	24.63	26.54	\$26.54	\$0.00	-\$186.86	\$0.00	\$0.00
Day 2	5	20.822	29.00	-8.178	-28.200	0	-8.178	0	0	-8.178	0	25.04	23.53	\$25.04	\$0.00	-\$184.30	\$0.00	\$0.00
Day 2	6	17.560	29.00	-11.440	-39.448	0	0	-11.44	0	0	-11.44	24.99	22.87	\$24.99	\$0.00	\$0.00	\$0.00	-\$183.35
Day 2	7	22.910	29.00	-6.090	-21.000	0	-6.09	0	0	-6.09	0	45.62	57.96	\$57.96	\$0.00	-\$317.68	\$0.00	\$0.00
Day 2	8	27.082	29.00	-1.918	-6.614	-1.918	0	0	-1.918	0	0	48.22	59.74	\$59.74	\$0.00	\$0.00	\$0.00	\$0.00
Day 2	9	150.615	140.50	10.115	7.199	0	0	10.115	0	10.115	0	54.31	58.97	\$58.97	\$656.13	\$0.00	\$0.00	\$0.00
Day 2	10	32.437	37.00	-4.563	-12.332	0	-4.563	0	0	-4.563	0	51.89	56.88	\$56.88	\$0.00	-\$233.59	\$0.00	\$0.00

Lowest Incremental Cost for the Day



These sample calculations have been created for illustrative purposes and are not intended to be a substitute for the actual calculations that will be determined under the rate formula upon implementation.