

May 10, 2019

VIA ELECTRONIC FILING

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

RE: **Docket No. 19-035-21**
Major Event Report for March 28-31, 2019

Rocky Mountain Power is requesting a major event exclusion for the weather-related events on March 28-31, 2019, which exceeded the Commission-approved threshold for customer minutes lost in a 24-hour period.

The attached provides details including costs incurred, restoration resources, number of customers off supply, customer minutes lost, and SAIDI, SAIFI, CAIDI figures.

Upon Commission approval, Rocky Mountain Power will exclude outage information for these events from its network performance reporting and from customer guarantee failure payments.

Informal inquiries may be made to Jana Saba at (801) 220-2823 or Heide Caswell, Director Asset Performance and Wildfire Mitigation, at (503) 813-6216.

Sincerely,


Joelle Steward
Vice President, Regulation

Enclosures

Report to the Utah Public Service Commission Electric Service Reliability - Major Event Report UT-19-1

Event Dates:	March 28-31, 2019
Date Submitted:	May 10, 2019
Primary Affected Locations:	Salt Lake City Metro, Utah
Primary Cause:	Snow Storm
Exclude from Reporting Status:	Yes
Report Prepared by:	April Brewer
Report Approved by:	Heide Caswell / Scott Derrick / Dan Bodily

Event Description

On the evening of March 28th Rocky Mountain Power's ("Company's") Salt Lake City Metro operating area began experiencing outages as a result of a spring snowstorm. The event significantly impacted service as wet snow began weighing down trees limbs and equipment which eventually failed downing numerous sections of distribution lines. The event caused hundreds of localized outages slowing restoration as vegetation and line crews worked to clear debris and repair equipment. During the three day event, over 600 sustained customer outages were experienced, affecting 46,056 customers, with more than 4,085 customers experiencing interruptions lasting over 24 hours. On the morning of March 29th the total customers without power peaked at 22,890, the result of 348 concurrent outages being addressed by the response teams. The Salt Lake City Metro area sustained 91% of all customer minutes interrupted and 78% of all customer outages. Weather and tree related outages accounted for 87% of all customer minutes lost and 71% of all customer outages. Over 500 employees were involved in the restoration activities.

Event Outage Summary	
# Interruptions (sustained)	628
Total Customer Interrupted (sustained)	46,056
Total Customer Minutes Lost	22,672,883
Event SAIDI	23.96 Minutes
CAIDI	492
Major Event Start	3/28/19 10:28 PM
Major Event End	3/31/19 4:29 PM

Restoration Summary

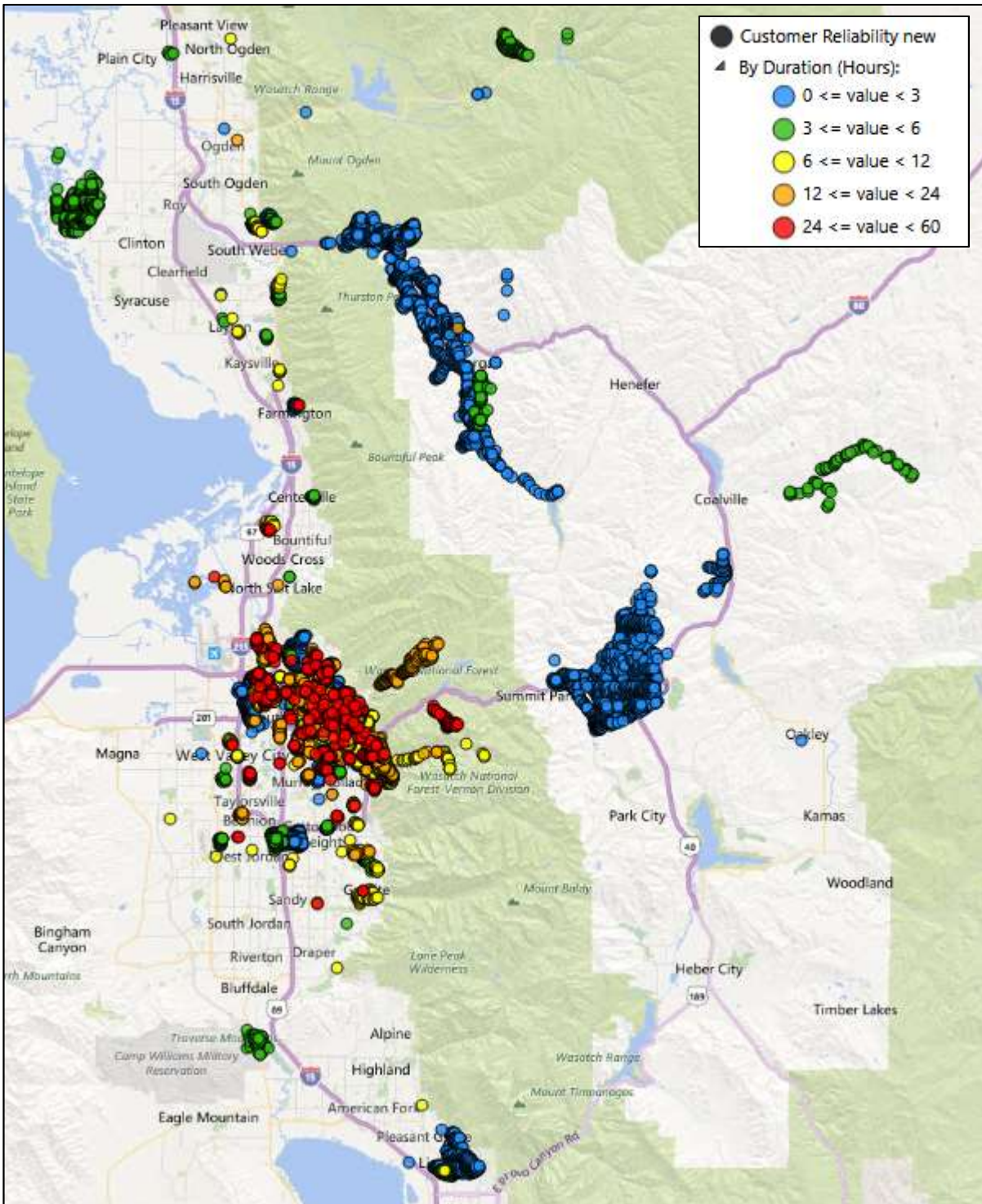
On the evening of March 28, 2019, a spring snow storm dropped heavy wet snow to the Salt Lake Metro Region, weighing down trees and facilities, damaging equipment and downing lines.

The storm had its greatest effect on the system on the morning of March 29th, and although snow fall had slowed by that afternoon new outages continued to occur as tree limbs continued to give way under the weight of snow, producing more outages, even as customers were restored.

Local crews worked to restore customers throughout the day, patrolling areas, removing downed lines, and assessing damaged equipment. Although snow fall had slowed new outages continued to occur as tree limbs continued to break under the weight of snow, producing more outages, even as customers were restored. As a result, the number of customers out of service continued to hover over 10,000 for 15 hours. Due to the storm's significant impact within the concentrated area and its substantial effect on localized distribution feeds, consisting of numerous downed lines and damaged equipment, crew resources were spread thin, requiring assistance from company resources normally stationed in other operating areas.

Figure 1 below displays customers out during the event by their duration. During the event approximately 38% of all customer outages were restored within 3 hours, 17% were restored within 3 to 6 hours, 23% within 6 to 12 hours, 13% within 12-24 hours, and 9% were restored in over 24 hours. A total of 502 employees took part in the restoration efforts, replacing approximately 13,500 feet of conductor, 3 distribution poles, 1 transmission pole, 1,807 line splices, 194 insulators, and 422 guy wires. Concurrent outages, which are used to evaluate the end of the major event, returned to normal on the evening of March 31st.

Figure 1: customers out by duration from March 28 - 31, 2019.



Restoration Intervals

Total Customers Sustained	< 3 Hrs.	3 - 24 Hrs.	24 - 48 Hrs.	48+ Hrs.
46,056	17,721	24,250	3,993	92

Restoration Resources

Personnel Resources	
Support staff	120
Line crewman	153
Contract crewman	55
Troubleman	27
Assessor	15
Tree crewman	79
Foreman	31
Administrative	1
Substation	1
Transportation	1
Warehouseman	5
Other (Dispatchers)	12
Other (Engineers)	2
TOTAL	502

Materials	
# Poles (distribution)	3
# Poles (transmission)	1
Approximate Line Feet (conductor)	13,540
# Transformers	1
# Crossarms	36
Insulators	194
Cutouts	60
Line fuses	21
Line splices	1,807
Guy wire	422
Switches	6
Fault Indicators	3
Brackets	33

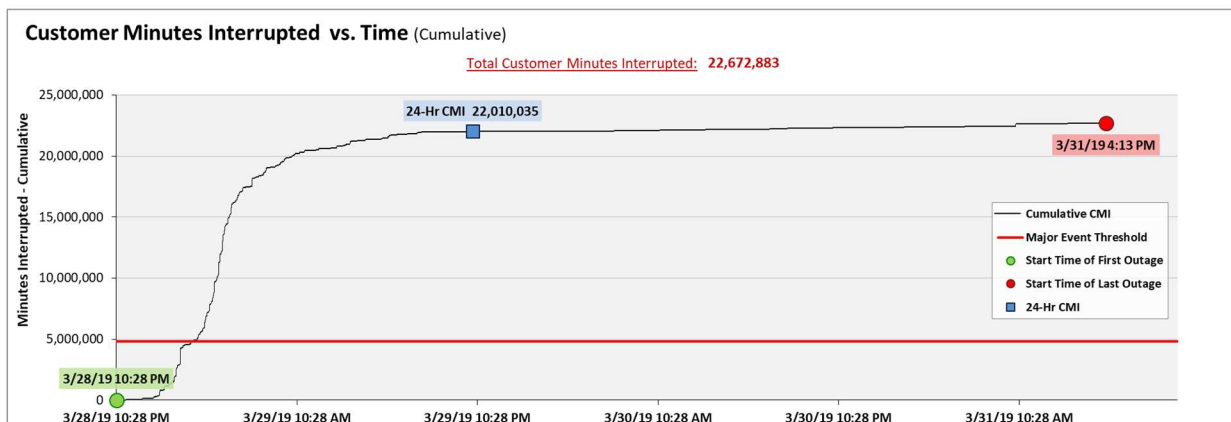
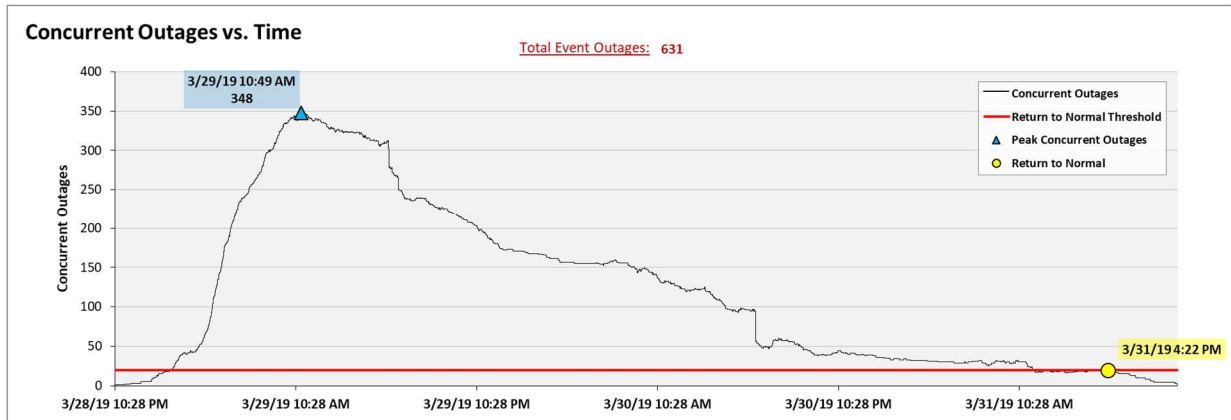
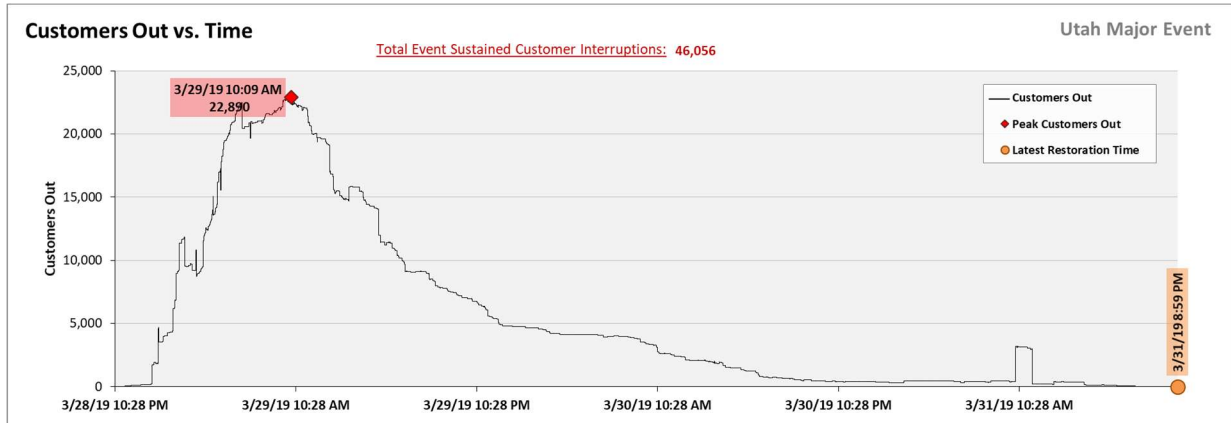
State Estimated Major Event Costs

Estimate \$	Labor	Contracts	Materials	Overhead	Total
Capital	\$50,889	\$0	\$11,867	\$7,292	\$70,048
Expense	\$847,325	\$324,574	\$32,557	\$4,394	\$1,208,850
Total	\$898,214	\$324,574	\$44,424	\$137,393	\$1,278,898

Major Event Declaration

Rocky Mountain Power is requesting designation of this storm and its consequences to be classified as a “Major Event” for exclusion from network performance reporting. This major event exceeded the Company’s current Utah threshold for customer minutes lost in a 24-hour period, consistent with Utah Administrative Code R746-313. The 2019 annual threshold for Utah is 4,809,295 minutes (i.e., 5.08 state SAIDI minutes).

Event Detail



SAIDI, SAIFI, CAIDI by Reliability Reporting Region

Please see the attached system-generated reports.

PacifiCorp Major Event Report

Customer Analysis

	Utah	Customer Analysis 3/28/2019 through 3/31/2019					Customers Restored by Intervals								Major Event Only - metric by operating area customer counts		
	<i>PacifiCorp Major Events Report Customer Analysis*</i>	Sustained Customers Off	% Sustained Customers Off	CML	Number of Sustained Interruptions	Customer Count	< 5 min	5 min - 3 hrs	3 hrs - 24 hrs	24 hrs - 48 hrs	48 hrs - 72 hrs	72 hrs - 96 hrs	96 + hrs	% Sustained Customers Restored in 3 Hours PS4	SAIDI	SAIFI	CAIDI
PC	PACIFICORP	46,056	2%	22,672,883	628	1,976,599	17,515	17,721	24,250	3,993	92	-	-	38%	11.47	0.023	492
RMP	Rocky Mountain Power	46,056	4%	22,672,883	628	1,174,759	17,515	17,721	24,250	3,993	92	-	-	38%	19.30	0.039	492
UT	Utah	46,056	5%	22,672,883	628	946,168	17,515	17,721	24,250	3,993	92	-	-	38%	23.96	0.049	492
UT	AMERICAN FORK	1,439	1%	75,953	3	110,595	2,997	1,253	186	-	-	-	-	87%	0.69	0.013	53
UT	CEDAR CITY	1	0%	50	1	34,923	-	1	-	-	-	-	-	100%	0.00	0.000	50
UT	CEDAR CITY (MILFORD)	1	0%	582	1	2,806	-	-	1	-	-	-	-	0%	0.21	0.000	582
UT	JORDAN VALLEY	2,466	1%	1,103,370	64	237,816	1,448	611	1,715	140	-	-	-	25%	4.64	0.010	447
UT	LAYTON	365	0%	92,875	24	74,441	-	161	201	3	-	-	-	44%	1.25	0.005	254
UT	MOAB	4	0%	1,296	1	8,986	-	-	4	-	-	-	-	0%	0.14	0.000	324
UT	OGDEN	5,432	5%	656,437	28	111,197	4	4,892	540	-	-	-	-	90%	5.90	0.049	121
UT	PARK CITY	165	0%	21,365	4	33,748	6,767	87	78	-	-	-	-	53%	0.63	0.005	129
UT	PRICE	1	0%	109	1	10,623	-	1	-	-	-	-	-	100%	0.01	0.000	109
UT	RICHFIELD	10	0%	1,097	1	15,805	-	10	-	-	-	-	-	100%	0.07	0.001	110
UT	RICHFIELD (DELTA)	22	1%	3,275	1	3,923	-	22	-	-	-	-	-	100%	0.83	0.006	149
UT	SLC METRO	36,103	16%	20,709,874	487	223,343	6,299	10,642	21,519	3,850	92	-	-	29%	92.73	0.162	574
UT	SMITHFIELD	34	0%	3,594	1	25,316	-	34	-	-	-	-	-	100%	0.14	0.001	106
UT	TOOELE	6	0%	2,273	4	24,633	-	1	5	-	-	-	-	17%	0.09	0.000	379
UT	TREMONTON	1	0%	107	1	10,797	-	1	-	-	-	-	-	100%	0.01	0.000	107
UT	VERNAL	6	0%	626	6	13,057	-	5	1	-	-	-	-	83%	0.05	0.000	104

*Only current event specific metric impact shown. Does not include values from other events which may have occurred in other regions during the same time period.

	Customer Interrupted by Date 3/28/2019 through 3/31/2019					Customers Restored by Intervals								Major Event Only - metric by state customer counts		
Date*	Sustained Customers Off	% Sustained Customers Off	CML	Number of Sustained Interruptions	Average Customer Count	< 5 min	5 min - 3 hrs	3 hrs - 24 hrs	24 hrs - 48 hrs	48 hrs - 72 hrs	72 hrs - 96 hrs	96 + hrs	% Sustained Customers Restored in 3 Hours PS4	SAIDI	SAIFI	CAIDI
3/28/2019	113	0%	21,176	3	946,168	-	34	79	-	-	-	-	30%	0.02	0.000	187
3/29/2019	41,234	4%	22,003,073	467	946,168	15,168	13,591	23,570	3,981	92	-	-	33%	23.25	0.044	534
3/30/2019	1,059	0%	330,922	114	946,168	2,345	662	385	12	-	-	-	63%	0.35	0.001	312
3/31/2019	3,650	0%	317,712	44	946,168	2	3,434	216	-	-	-	-	94%	0.34	0.004	87

Data as of
4/29/2019

PacifiCorp Major Event Report

SSC by State Analysis

	Utah	Event 03/28/19 through 03/31/19						Month 03/01/19 through 03/31/19						YTD FY2019 01/01/19 through 03/31/19					
		Major Events Included			Major Event Excluded			Major Events Included			Major Events Excluded*			Major Events Included			Major Events Excluded*		
	PacifiCorp Major Events Report SSC by State	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
PC	PACIFICORP	12.09	0.031	394	0.62	0.007	83	19.62	0.082	239	6.29	0.056	112	132.75	0.350	379	27.60	0.219	126
RMP	Rocky Mountain Power	20.10	0.049	411	0.80	0.010	83	25.59	0.101	254	6.29	0.062	102	46.21	0.269	172	26.91	0.230	117
UT	Utah	24.19	0.054	444	0.22	0.006	39	28.96	0.103	280	5.00	0.055	91	49.28	0.263	187	25.32	0.214	118
UT	AMERICAN FORK	0.08	0.002	53	0.00	0.000	72	1.21	0.013	91	1.13	0.012	96	1.97	0.018	107	1.89	0.017	111
UT	CEDAR CITY	0.00	0.000	225	0.00	0.000	400	0.24	0.001	165	0.24	0.001	165	2.98	0.026	114	2.98	0.026	114
UT	CEDAR CITY (MILFORD)	0.00	0.000	582				0.27	0.001	228	0.27	0.001	227	0.36	0.002	180	0.36	0.002	179
UT	EVANSTON													0.01	0.000	173	0.01	0.000	173
UT	JORDAN VALLEY	1.19	0.003	433	0.02	0.000	166	2.02	0.012	167	0.85	0.010	90	9.43	0.065	145	8.27	0.062	133
UT	LAYTON	0.10	0.000	254				0.30	0.003	96	0.20	0.003	74	1.87	0.022	84	1.77	0.022	81
UT	MOAB	0.00	0.000	271	0.00	0.000	164	0.04	0.001	43	0.04	0.001	41	0.19	0.002	90	0.19	0.002	90
UT	MONTPELIER							0.01	0.000	69	0.01	0.000	69	0.02	0.000	77	0.02	0.000	77
UT	OGDEN	0.69	0.006	121	0.00	0.000	158	1.03	0.008	133	0.33	0.002	166	1.95	0.017	114	1.26	0.011	110
UT	PARK CITY	0.20	0.003	65	0.17	0.003	61	0.32	0.007	48	0.29	0.006	46	0.95	0.010	91	0.93	0.010	90
UT	PRICE	0.01	0.003	5	0.01	0.003	5	0.06	0.003	21	0.06	0.003	21	0.59	0.008	78	0.59	0.008	78
UT	RICHFIELD	0.00	0.000	107	0.00	0.000	85	0.14	0.004	41	0.14	0.004	40	0.73	0.008	90	0.73	0.008	90
UT	RICHFIELD (DELTA)	0.00	0.000	138	0.00	0.000	62	0.15	0.001	287	0.14	0.000	294	0.17	0.001	246	0.16	0.001	249
UT	SLC METRO	21.89	0.038	572	0.01	0.000	60	22.92	0.048	482	1.03	0.009	110	26.44	0.069	385	4.55	0.031	149
UT	SMITHFIELD	0.00	0.000	104	0.00	0.000	55	0.03	0.000	96	0.03	0.000	95	0.23	0.001	167	0.23	0.001	169
UT	TOOELE	0.00	0.000	405	0.001	0.000	484	0.20	0.002	114	0.20	0.002	114	1.07	0.009	120	1.07	0.009	120
UT	TREMONTON	0.00	0.000	107				0.00	0.000	109	0.00	0.000	109	0.16	0.001	182	0.16	0.001	182
UT	VERNAL	0.00	0.000	133	0.00	0.000	143	0.03	0.000	149	0.03	0.000	150	0.16	0.003	58	0.16	0.003	58

*may include other regional major event exclusions during the same period. Operating areas are calculated by the state frozen customer count metrics.

Data as/of
4/29/2019