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April 10, 2020

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 Administration

RE: **Docket No. 20-035-19**
Major Event Report for March 18, 2020

Rocky Mountain Power is requesting a major event exclusion for the earthquake-related events on March 18, 2020, 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, and 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 Joshua Jones, Director Asset Management, at (801) 220-4212.

Sincerely,

Joelle Steward
Vice President, Regulation

Enclosures

<p style="text-align: center;">Report to the Utah Public Utility Commission Electric Service Reliability - Major Event Report UT-20-1</p>

Event Date:	March 18, 2020
Date Submitted:	April 10, 2020
Primary Affected Locations:	SLC Metro/Tooele
Primary Cause:	Earthquake
Exclude from Reporting Status:	Yes
Report Prepared by:	Brett Carleton/Chase Talbot
Report Approved by:	Joshua Jones/Christopher Spencer

Event Description and Restoration Summary

On March 18, 2020, at 7:09 AM, a 5.7 magnitude earthquake in Magna, Utah shook the Wasatch Front and caused widespread outages to Rocky Mountain Power customers across the Salt Lake and Tooele Valleys. The earthquake triggered multiple substation protective relays to operate and isolate transformers to prevent further damage. Moreover, the earthquake caused numerous distribution lines to fall or twist together. The damage to company facilities resulted in 56,421 customer interruptions.

Substation personnel were dispatched to all impacted substation locations. Crews performed visual inspections of substation equipment and manually reset protective relay lockouts so power could be restored either manually or via SCADA. Line personnel were dispatched to perform a detailed inspection of overhead lines to identify any damage requiring crews. As soon as patrols and equipment inspections were completed step restoration was utilized to bring customers on as quickly as possible and crews were sent to repair downed and tangled power lines. The first major restoration took place at 9:37 AM, restoring power to 1,538 customers, with an additional 10,000 customers restored by 10:00 AM. The majority of customers were restored throughout the day of March 18th, with only 62 customers without power by midnight. The last customers were restored at 1:00 PM on March 19th.

Crews were provided from offices along the Wasatch Front along with contract crews that work on projects for Rocky Mountain Power full-time. These resources were utilized throughout the restoration efforts. There were challenges in restoring power to customers due to the volume of substations and lines impacted by the event.

One challenge line crews faced was access to overhead lines in residential and commercial properties. This temporarily delayed restoration efforts as crews had to coordinate with landlords and business owners to access affected lines. Specific to this issue were closed commercial locations due to COVID-19 guidelines, which took longer than normal to gain access to damaged facilities.

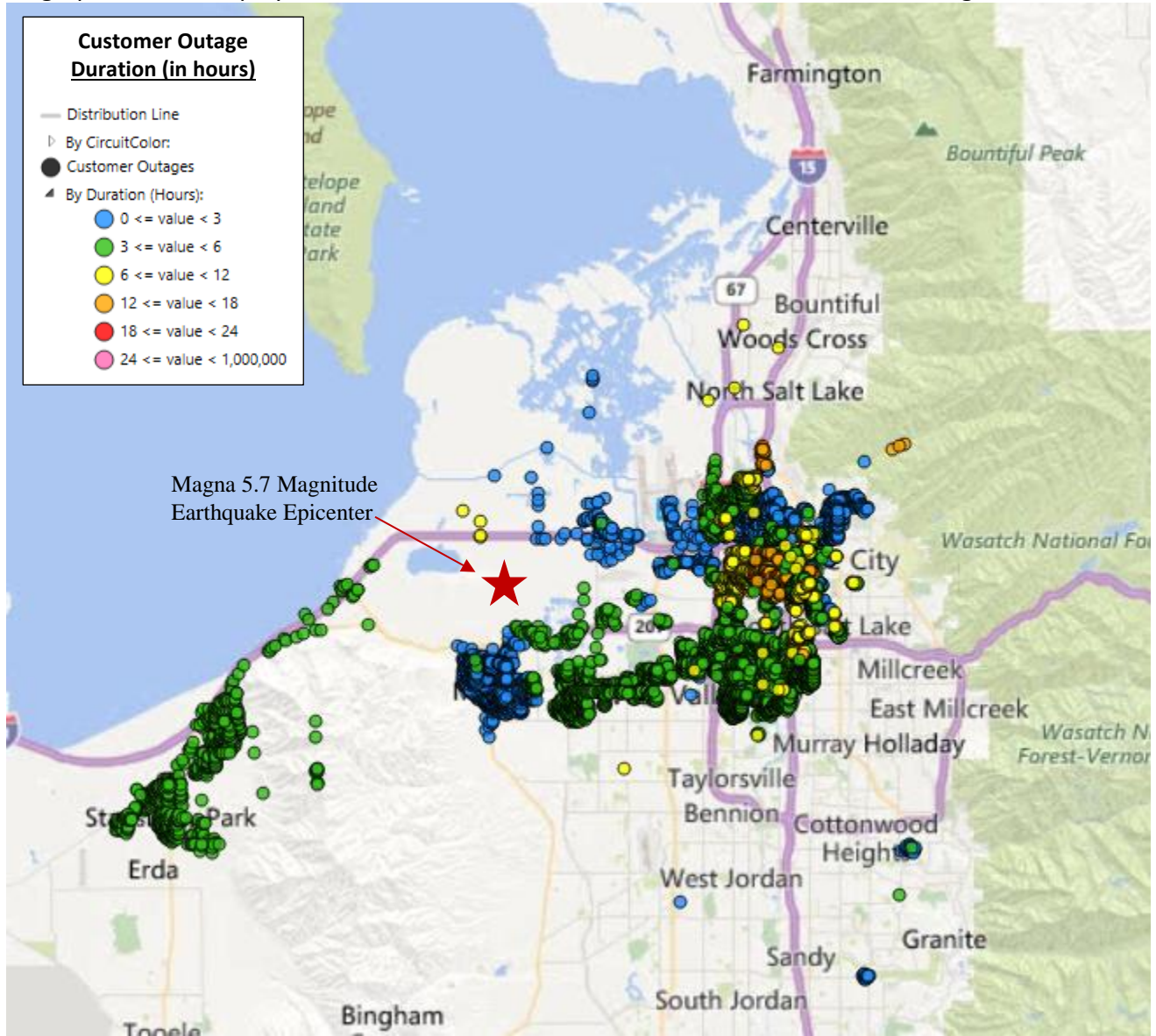
Likewise, substation crews ran into issues with two substations in downtown Salt Lake City. The Snarr and Third West substations required additional technical testing and support as initial tests were inconclusive on whether the substation transformer and metal clad switchgear were safe to energize.

After further testing and troubleshooting, it was determined the equipment was safe to energize and crews were able to restore power to customers in those areas. Another substation in West Valley experienced physical damage to the substation bus, however, crews were able to repair the equipment and energize the bus.

To date, there have been no company or commission customer complaints made regarding the major event.

Event Outage Summary	
# Interruptions (sustained events)	264
Total Customer Interrupted (sustained events)	56,421
Total Customer Minutes Lost	13,888,993
State Event SAIDI Impact	14.6 minutes
CAIDI	246
Major Event Start	3/18/20 7:09 AM
Major Event End	3/19/20 7:09 AM

The graphic below displays the extent and duration of the event in the heaviest hit region.



Restoration Intervals

Total Customer Sustained Outage Events (entire major event period)	< 3 Hrs.	3 – 24 Hrs.	24+ Hrs.
56,421	24,895	31,526	0

Restoration Resources

Personnel Resources	
Support Staff	9
Line Crewman	106
Troubleman	12
Tree Crewman	22
Foreman	3
Substation	43
Transportation	5
TOTAL	200

Materials	
# Poles (distribution)	3
Approximate Line Feet (conductor)	14,184
# Transformers	5
# Crossarms	2
Insulators	30
Cutouts	32
Line fuses	30
Line splices	36
Arrestors	7

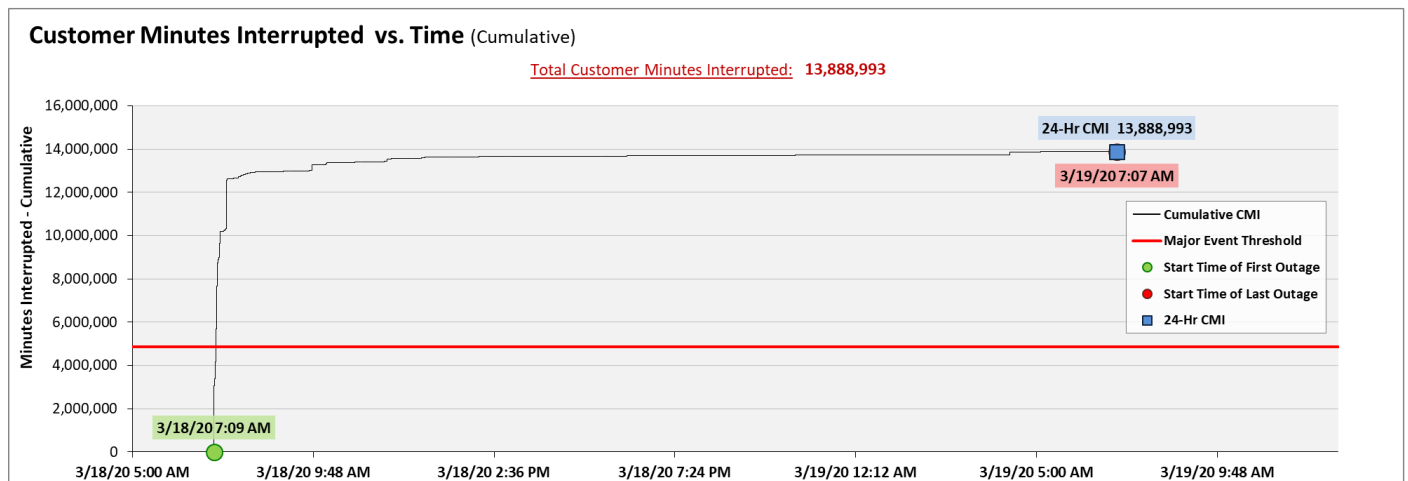
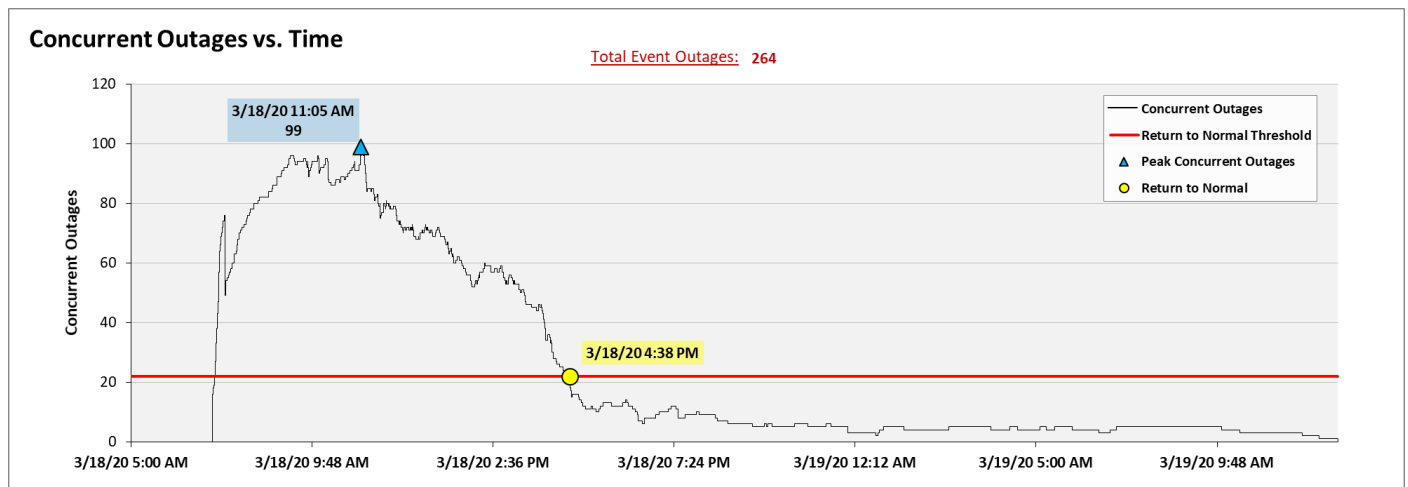
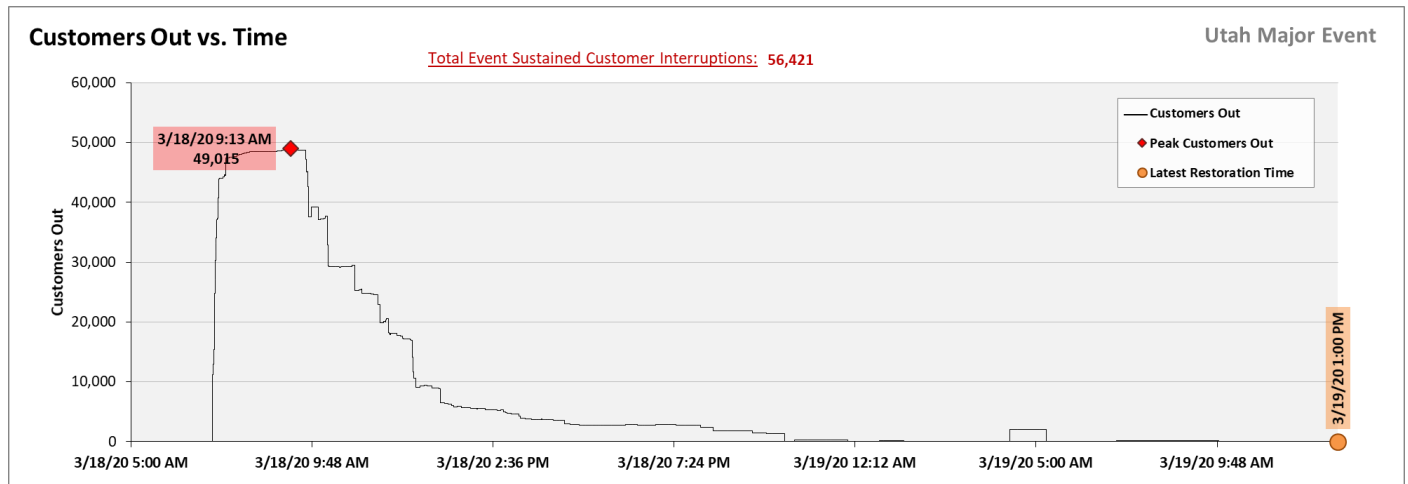
State Estimated Major Event Costs

Estimate \$	Labor	Contracts	Materials	Overheads	TOTAL
Capital	\$15,078	\$0	\$23,554	\$4,851	\$43,483
Expense	\$240,097	\$12,373	\$10,908	\$2,206	\$265,584
Total	\$255,175	\$12,373	\$34,462	\$7,057	\$309,067

Major Event Declaration

PacifiCorp designates these events and the consequences thereof a major event in accordance with docket PAC-E-04-07, where the company and commission agreed that determination of major events will be made by applying IEEE standard 1366-2003 methodology (commonly referred to as the 2.5 beta method), wherein a statistical outlier of these extreme events is based on the state daily SAIDI thresholds. The company's 2020 Utah reliability reporting region threshold is 4,850,995 customer minutes lost (5.08 SAIDI minutes) in a 24-hour period.

Event Details



SAIDI, SAIFI, CAIDI by Reliability Reporting Region

Please see the attached system-generated reports.

PacifiCorp Major Event Report

Customer Analysis

Utah		Customer Analysis 3/18/2020 through 3/19/2020					Customers Restored by Intervals								Major Event Only - metric by operating area customer counts		
PacifiCorp Major Events Report Customer Analysis*		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	56,421	3%	13,888,993	261	1,982,346	11,578	24,895	31,526	-	-	-	-	44%	7.01	0.028	246
RMP	Rocky Mountain Power	56,421	5%	13,888,993	261	1,183,049	11,578	24,895	31,526	-	-	-	-	44%	11.74	0.048	246
UT	Utah	56,422	6%	13,889,008	262	954,372	11,578	24,896	31,526	-	-	-	-	44%	14.55	0.059	246
UT	AMERICAN FORK	2	0%	115	2	114,373	-	2	-	-	-	-	-	100%	0.00	0.000	58
UT	CEDAR CITY	347	1%	62,321	3	35,637	-	272	75	-	-	-	-	78%	1.75	0.010	180
UT	CEDAR CITY (MILFORD)	1	0%	334	1	2,783	-	-	1	-	-	-	-	0%	0.12	0.000	334
UT	JORDAN VALLEY	121	0%	15,527	8	237,516	-	86	35	-	-	-	-	71%	0.07	0.001	128
UT	LAYTON	9	0%	2,892	2	74,224	-	1	8	-	-	-	-	11%	0.04	0.000	321
UT	OGDEN	3	0%	633	3	110,720	-	1	2	-	-	-	-	33%	0.01	0.000	211
UT	PARK CITY	1	0%	15	1	34,361	-	1	-	-	-	-	-	100%	0.00	0.000	15
UT	PRICE	2	0%	238	2	10,472	-	2	-	-	-	-	-	100%	0.02	0.000	119
UT	RICHFIELD	1	0%	67	1	15,805	-	1	-	-	-	-	-	100%	0.00	0.000	67
UT	SLC METRO	52,449	23%	12,709,544	234	227,375	11,578	24,530	27,919	-	-	-	-	47%	55.90	0.231	242
UT	TOOELE	3,412	14%	1,077,120	2	24,945	-	-	3,412	-	-	-	-	0%	43.18	0.137	316
UT	VERNAL	74	1%	20,203	3	12,916	-	-	74	-	-	-	-	0%	1.56	0.006	273

*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 3/18/2020 through 3/19/2020		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
3/18/2020	54,199	6%	13,731,390	252	954,372	11,578	22,776	31,423	-	-	-	-	42%	14.39	0.057	253
3/19/2020	2,222	0%	157,602	9	954,372	-	2,119	103	-	-	-	-	95%	0.17	0.002	71

Data as of
4/6/2019

PacifiCorp Major Event Report
SSC by State Analysis

	Utah	Event 03/18/20 through 03/19/20						Month 03/01/20 through 03/31/20						YTD FY2021 01/01/20 through 03/31/20					
		Major Events Included			Major Event Excluded			Major Events Included			Major Events Excluded*			Major Events Included			Major Events Excluded*		
		SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
	PacifiCorp Major Events Report SSC by State																		
PC	PACIFICORP	7.77	0.035	221	0.76	0.007	114	15.20	0.106	143	7.89	0.072	109	58.37	0.303	193	22.81	0.215	106
RMP	Rocky Mountain Power	12.73	0.056	228	0.99	0.008	123	19.80	0.122	162	8.06	0.075	108	37.06	0.293	126	22.62	0.220	103
UT	Utah	15.63	0.068	230	1.08	0.009	122	22.55	0.128	176	7.99	0.069	116	37.66	0.279	135	23.11	0.219	105
UT	AMERICAN FORK	0.06	0.001	79	0.06	0.001	79	3.54	0.024	144	3.54	0.024	144	15.02	0.124	121	15.02	0.124	121
UT	CEDAR CITY	1.75	0.010	180	-	-	-	19.61	0.150	131	17.86	0.140	127	57.92	0.356	163	56.17	0.347	162
UT	CEDAR CITY (MILFORD)	0.53	0.004	135	0.41	0.004	115	42.68	0.152	281	42.56	0.152	281	103.67	0.839	124	103.55	0.838	124
UT	EVANSTON	-	-	-	-	-	-	0.14	0.000	280	0.14	0.000	280	1.34	0.005	293	1.34	0.005	293
UT	JORDAN VALLEY	2.03	0.012	166	1.96	0.012	167	6.56	0.058	113	6.50	0.057	113	13.72	0.121	113	13.66	0.121	113
UT	LAYTON	0.05	0.000	160	0.01	0.000	49	2.95	0.029	102	2.91	0.029	101	10.50	0.161	65	10.46	0.160	65
UT	MOAB	0.06	0.000	287	0.06	0.000	287	4.98	0.026	192	4.98	0.026	192	44.67	0.156	286	44.67	0.156	286
UT	MONTPELIER	-	-	-	-	-	-	0.40	0.010	40	0.40	0.010	40	6.21	0.040	156	6.21	0.040	156
UT	OGDEN	0.46	0.002	207	0.45	0.002	207	13.52	0.152	89	13.51	0.152	89	28.50	0.276	103	28.49	0.276	103
UT	PARK CITY	0.01	0.000	64	0.01	0.000	88	12.33	0.078	157	12.33	0.078	157	57.47	0.534	108	57.47	0.534	108
UT	PRICE	0.02	0.000	119	-	-	-	3.51	0.043	81	3.49	0.043	81	97.51	0.883	110	97.49	0.883	110
UT	RICHFIELD	0.00	0.000	67	-	-	-	0.41	0.004	97	0.41	0.004	98	23.27	0.248	94	23.27	0.247	94
UT	RICHFIELD (DELTA)	-	-	-	-	-	-	14.56	0.150	97	14.56	0.150	97	18.98	0.200	95	18.98	0.200	95
UT	SLC METRO	58.11	0.254	229	2.21	0.023	95	64.24	0.293	220	8.34	0.062	135	80.55	0.499	161	24.66	0.268	92
UT	SMITHFIELD	0.03	0.000	86	0.03	0.000	86	3.75	0.042	90	3.75	0.042	90	10.56	0.137	77	10.56	0.137	77
UT	TOOELE	43.18	0.137	316	-	-	-	61.01	0.317	193	17.83	0.180	99	70.72	0.417	170	27.54	0.280	98
UT	TREMONTON	-	-	-	-	-	-	17.30	0.098	176	17.30	0.098	176	31.92	0.304	105	31.92	0.304	105
UT	VERNAL	3.10	0.015	204	1.54	0.009	163	2.39	0.010	247	0.82	0.004	208	3.10	0.015	204	1.54	0.009	163

*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
4/6/2019

CERTIFICATE OF SERVICE

Docket No. 20-035-19

I hereby certify that on April 10, 2020, a true and correct copy of the foregoing was served by electronic mail to the following:

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