STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 20-_____

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Reliability Enhancement Program and Vegetation Management Program

Report for Calendar Year 2019

March 13, 2020

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Liberty Utilities (Granite State Electric) Corp. ("Liberty" or the "Company") hereby submits the results of the Reliability Enhancement Plan ("REP") and Vegetation Management Plan ("VMP") for the calendar year 2019 ("CY2019"). These results for the CY2019 Plan are submitted consistent with the requirements in Attachment F to the Settlement Agreement in Docket No. DE 13-063 (the "Settlement Agreement") that was approved by Commission Order No. 25,638 (March 17, 2014), as amended by the Settlement Agreement in Docket No. DE 16-383 that was approved by Commission Order No. 26,005 (April 12, 2017). For ease of reference, a copy of Attachment F is included as Appendix 8 to this report. This report contains the following information:

1. A comparison of actual to budgeted spending on operating and maintenance ("O&M") activities related to the VMP in CY2019. Appendix 1, line 12, column (b), shows that total actual O&M spending that occurred during 2019 was $2,096,528. As shown in column (b), the CY2019 O&M expenses, after taking into account credits for amounts from Consolidated Communications ("Consolidated") of $495,381, totaled $1,601,147, or $210,472 less than the budgeted amount of $1,827,000.
2. A comparison of actual investment to budgeted spending on capital projects for REP in CY2019. Appendix 2, line 7, column (d) shows that the total capital investment recorded on Granite State's books in CY2019 was $1,837,934[1].

1 This investment includes $625,729 associated with CY2018 capital projects that was not booked to plant until 2019 and is being included in the CY2019 rate adjustment.

3. A request to recover a total of $1,601,147 of O&M costs, of which $101,147 represents the CY2019 incremental O&M spending above the $1,500,000 base amount already in rates. The recovery of costs calculation is provided for in the joint testimony of David Simek and Adam Hall.
4. A request to recover $210,503 of revenue associated with a total of $1,837,934 in capital investment, split between two program years, CY2018 carryover and CY2019; and
5. A summary of reliability performance for CY2019.

The Company is submitting the joint testimony of Joel Rivera and Heather Green, which provides further information regarding the Company's actual O&M cost and capital investment made during CY2019. In addition, the joint testimony of David Simek and Adam Hall addresses the Company's request for a net increase in distribution rates associated with the REP/VMP Adjustment Provision and the REP Capital Investment Allowance described above, and includes typical bill impacts.

Section 1: CY2019 O&M Budget vs. Actual O&M Expenses for VMP

The proposed operating and maintenance ("O&M") budget for VMP activities for CY2019 is shown in Appendix 1, Line 12, Column (a). Liberty initially proposed a budget of $2,307,000 (or $1,827,000 net after Consolidated credits). The final budget was reduced at Staff's request. As shown on Appendix 1, line 14, column (a), those estimated reimbursements were excluded from the total amount of VMP O&M expenses to be recovered, resulting in an adjusted total VMP O&M expense budget of $1,601,147.

The Company is invoicing Consolidated $495,381 (Appendix 1, Line 13 column (b)) for CY2018 and has included that amount in calculating the REP/VMP Adjustment Factor.

As shown in Appendix 1, line 14, column (b), the Company's actual total spending level for CY2019 was $1,601,147 for O&M activities related to the VMP, or $210,472 less than the filed budgeted amount of $1,827,000. Budget variances related to the total CY2019 VMP O&M spending are described below. In addition to Appendix 1, which shows total O&M expenses, Appendix 5 shows the actual VMP O&M expenses by month, while Appendix 4 contains the work plan of completed VMP O&M activities by feeder.

The Company did not complete all of the vegetation management work contained in its CY2019 plan due to the delay in receiving a railroad right-of-way permit for the 8L1 and disagreement in pricing on a portion of 40L3 feeders in Charlestown. Some of the spending variances are described below:

The Company spent $7,494 more on work planning than anticipated. The Company brought in an additional work planner for a few weeks to catch us up on audits and we also implemented a new software program to manage the workflow process.

Spot tree trimming was under spent $1,434 due to lower than anticipated volume of electric service orders and customer calls.

The trouble and restoration budget is for unplanned work based on actual occurrence. Spending exceeded the budget by $1,903 due to an increase in unplanned non-storm related trouble call volume and support of the overhead line department.

The Company spent $18,363 less on planned cycle pruning due to the 8L1 permitting issue and the disagreement of adjusted pricing on the 40L3. Portions of the 40L3 were completed as a double circuit and new construction. The balance of work was rebid at a price that was higher than expected and therefore moved to 2020 cycle work.

The Company spent $76,861 less than anticipated for traffic control. The areas the Company trimmed in 2019 required less detail than would be the case if the Company were trimming in the more urban areas.

The Company spent $18,703 more than budgeted on hazard tree removals. The Company has not tackled the 2016, 2017, and 2018 tree removals and, as such, this budgeted item came in very close to the budget.

Interim trimming is generally unplanned work. We underspent by $22,211.

Tree planting came in around budget at $4,500.

Sub-Transmission Right of Way sideline work was underspent by $119,203. To accommodate the request of Staff to reduce the budget, the Company only trimmed half of the 1303-1304 subtransmission line in 2019 and pushed the other half of the trimming to 2020. The plan to trim the remaining of the 2376W has been pushed to 2020 due to an abutter not providing permission to work on their property. The Company is working through attorneys and survey engineers to receive the proper guidance on property lines to be able to trim in 2020.

Section 2: CY2019 Capital Budget vs. Actual Capital Investment for REP

The proposed capital investment budget for REP activities for 2019 is shown in Appendix 2, Line 6, Column (b). For the calendar year 2019, Liberty proposed to spend $1,600,000 on capital investments related to REP activities, including $100,000 related to CY2018 carryover work (Appendix 2, line 5, column (b)). As discussed with Commission Staff, the capital budget included installation of single-phase fuse savers at four locations and replacement of 3.8 miles of bare primary conductors. Details of the REP capital investment projects and costs are included in Appendix 3.

The budget was targeted towards carryover from 2018 and the re-conductoring of 3.8 miles of bare mainline primary conductor with spacer cable in tree outage prone areas where it is too costly to rely on vegetation management practices alone to mitigate feeder lockouts. The application of spacer cable, a covered conductor resistant to tree related outages, significantly improves mainline circuit performance during windy and stormy conditions as well as affords protection against incidental tree-conductor contact at the end of the trim cycle and contact resulting from branches falling from above or outside the trim zone.

In Appendix 2, the Company provides the carryover capital investment from 2018 of $625,729, as shown in Appendix 2, line 5, column (d). There are three projects that make up the carryover, but the largest piece is attributable to the Bare Conductor Replacement Project 12L2 - Route 12 Walpole. The project was delayed due to issues with Consolidated pole sets, described in the 2018 REP/VMP Report filed in Docket No. DE

19-051. As such, the project did not go in service until 2019, thus the Company did not request cost recovery in its 2018 reconciliation filing.

As shown on line 4, column (c) of Appendix 2, the Company's total spending for CY2019 was $1,212,204 for 2019 capital activities related to REP, or $287,796 less than the filed budgeted amount for those projects of $1,500,000.

Additional details of the variance in each of the CY2019 REP projects are provided below:

Single Phase Reclosing Applications: As shown in Appendix 2, line 3, column (c), CY2019 capital expenditures incurred for single phase reclosing installations amounted to $0, or $50,000 less than the proposed budget of $50,000. The Company decided it was best to postpone this project to give adequate time to identify safety procedures that needed to be included in the Company's Clearance and Control Procedures with regards to "fuse saving" techniques and "non-reclose" assurance. These installations are planned for 2020. As shown in Appendix 3, lines 7 through 10, two fuse savers at Ledge Rd Pelham will be installed instead of Sherburne Rd Pelham and Ball Rd Acworth.

Bare Conductor Replacement: As shown in Appendix 2, line 1, column (c), CY2019 capital expenditures incurred for Bare Conductor Replacement amounted to $1,212,204, or $237,796 less than the proposed target of $1,450,000.

The reconductoring job for 7L2 Shaker Hill Road, Enfield, was budgeted for $725,000. The total spend for the job in 2019 was $516,399. This job was originally designed to install tree resistant conductors on cross arms rather than in a spacer configuration, and

was planned for Liberty Electric Operations to perform the installation. The notification to Consolidated regarding pole sets necessary for the project was sent in February 2019. Per the Intercompany Operating Procedure agreement with Consolidated, Liberty cannot proceed with setting poles until 90 days has passed without Consolidated accepting the work. Consolidated had until May to respond, but the Company did not receive a response for them to complete the work by the end of May 2019. In June 2019, given constraints with internal resources from a heavy work load, Liberty hired JCR to complete setting poles. Once the poles were set, our internal crews worked through August and September to install the conductors and associated plant. In October 2019, about 25% of the job had been completed but further constraints with internal resources placed the required in-service date at risk. In order to complete this job by the end of 2019, Liberty proceeded with a bid process to outsource the installation. The request for proposal (RFP) went to four potential bidders in October, but only one responded with a bid as they were the only contractor able to complete the job by the end of 2019. The other potential bidders declined to submit a proposal due to not being able to meet the December 31, 2019, required in-service date. Due to the late bid and completion of the job, there were still invoices for costs associated with the job, such as removals that will be part of the 2020 reconciliation, and that amount to approximately $466,000. The Company compared similar jobs to determine if there was a premium paid to complete the job in a short turnaround, and in that review, it was found the price per foot quoted was comparable to like jobs in 2019. The total project cost including spending in 2019 and carryover from 2020 is estimated at $982,000. The original estimate is based on a cost per foot calculated using historical costs for previous similar projects. The bids and

actual costs came in higher than the average used to estimate the job. This amount is expected to be 35% over the budgeted amount given the resource constraints mentioned above and anticipated bid prices being higher than expected which will result in a higher than forecasted investment.

The reconductoring job for 40L3 Sullivan Street was budgeted for $725,000. The total spend for the job in 2019 was $695,805, with carryover of approximately $160,000 to be recovered in the 2020 reconciliation for invoices and burdens not yet applied for December 2019. The total project cost including spending in 2019 and carryover from 2020 is estimated at $857,000. This amount is expected to be 18% over the budgeted amount given anticipated bid prices being higher than expected, which will result in a higher than forecasted investment.

Section 3: Reliability Results – Calendar Year 2019

Consistent with Attachment F, Section VII.b, of the Settlement Agreement, reliability metrics for CY2019 are presented in the table below based on both the PUC Standard[2] for excluding major weather events and the IEEE Standard 1366[3] method for excluding major event days. The metrics presented also exclude transmission supply outages, planned or notified outages, and all other applicable exclusions[4]. The metrics include customers interrupted ("CI"), customer minutes interrupted ("CMI"), system average

2 PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, six days were excluded in Calendar Year 2019: January 9, October 16-18 and October 31 – November 1.

3 IEEE Major Event Days: Using IEEE criteria, no days were excluded in Calendar Year 2019.

4 Events that are excluded are those involving loss of supply from another utility, customer-owned facilities, fire or police emergencies, load shedding, planned maintenance, events whose duration was 5 minutes or less and/or events which involve only one customer.

interruption frequency index ("SAIFI"), system average interruption duration index ("SAIDI"), customer average interruption duration index (CAIDI), and customers interrupted per interruption index (CIII).

No Exclusions

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	650	41,337	5,178,620	44,784	0.9236	115.689	125.28	63.60

Excludes Only IEEE Major Events

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	650	41,337	5,178,620	44,784	0.9236	115.689	125.28	63.60

Excludes Only PUC Major Events

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	485	31,467	3,522,934	44,784	0.7031	78.757	111.96	64.88

Excludes Only Loss of Supply by Other Utility or Transmission Outage

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	650	41,337	5,178,620	44,784	0.9236	115.689	125.28	63.60

Excludes Only Planned Maintenance

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	589	40,520	5,141,462	44,784	0.9053	114.861	126.89	68.79

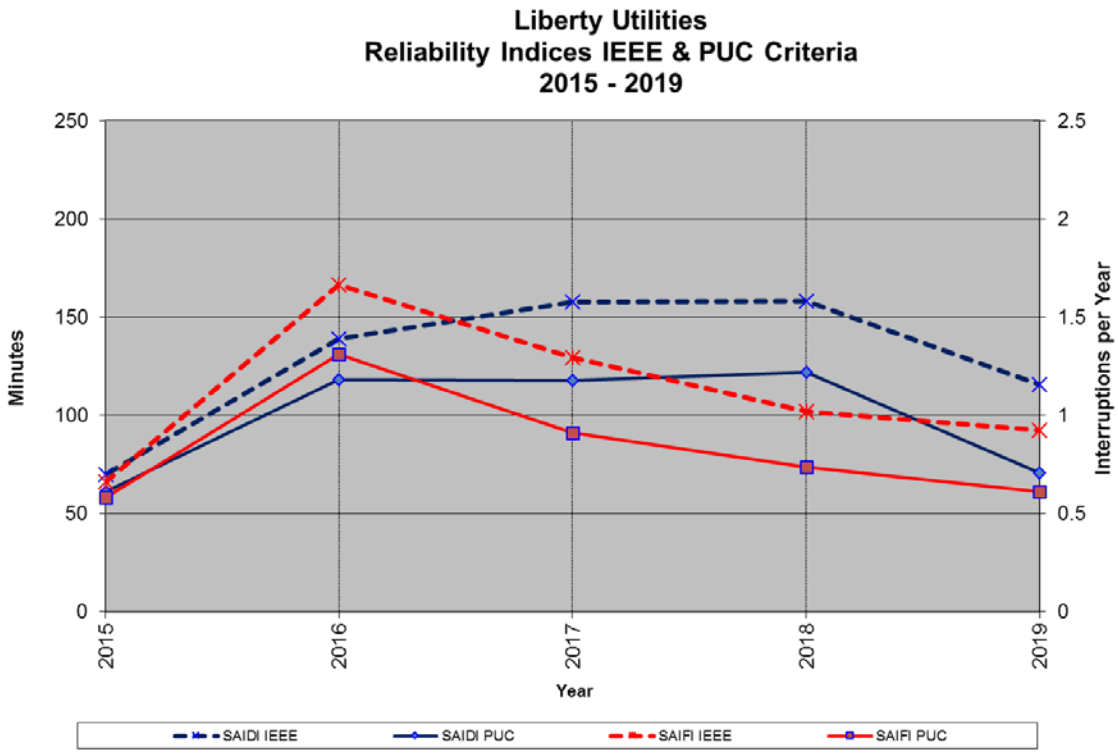
All Exclusions: IEEE Major Events, loss of supply, transmission, planned maintenance, Load Shedding, Single Customer Outages, Fire/Police Request

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	515	37,139	4,817,005	44,784	0.8298	107.6070	129.70	72.11

All Exclusions: PUC MEDs, loss of supply, transmission, planned maintenance, Load Shedding, Single Customer Outages, Fire/Police Request

Year	Events	Customers Interrupted	Customer Minutes Interrupted	Customers Served	SAIFI	SAIDI	CAIDI	CIII
2019	350	27,269	3,161,319	44,784	0.6094	70.675	115.93	77.91

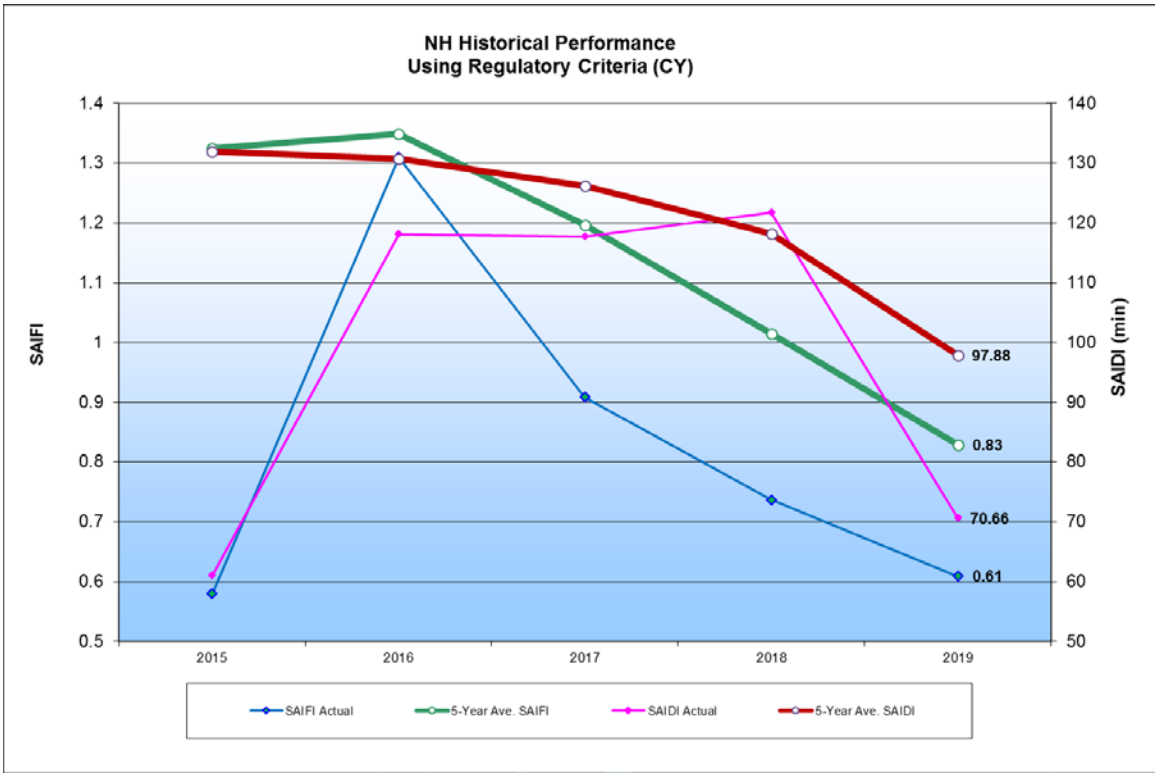
The historical reliability performance for the Company for the time period from 2015–2019 is outlined in the chart below. This chart displays annual SAIDI and SAIFI performance using IEEE-1366 and PUC criteria.



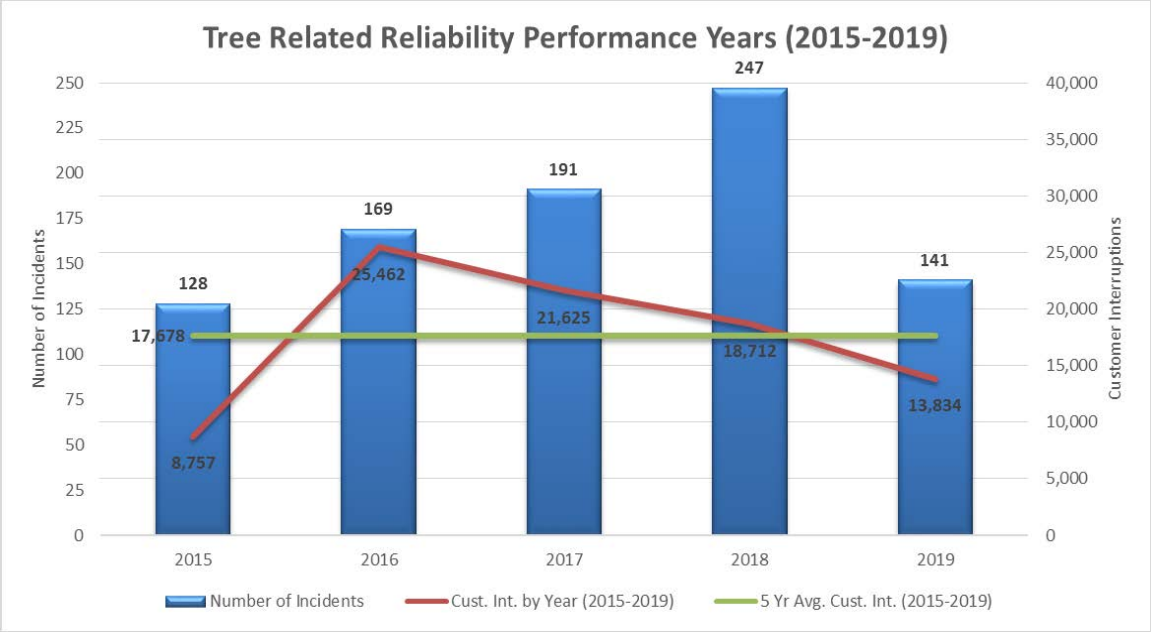
In terms of both SAIDI and SAIFI, the reliability performance for the Company in 2019 (based on IEEE-1366) was the second best performance in the last five years. The SAIDI performance of 115.64 minutes in 2019 is lower than the five-year average of 128 minutes. The SAIFI performance of 0.923 is lower than the five-year average of 1.11 minutes.

In 2019, there were no events that met the IEEE-1366 criteria for a Major Event Day.

As shown on the NH Historical Performance chart below (based on PUC criteria), the SAIFI performance of 0.61 and the SAIDI performance of 70.66 for CY2019 continue on an improving, downward trend, with the 2019 SAIFI and SAIDI results being the second best in twenty years. Only calendar year 2015 resulted in a lower SAIFI and SAIDI performance. In summary, the Company met its SAIFI and SAIDI targets of 1.01 and 118.17 minutes, respectively, which are based on a five-year rolling average and are shown in Appendix 7 and the table below. The Company has met its SAIDI and SAIFI targets for five consecutive years (2014-2019). Liberty expects this overall positive performance in SAIFI and SAIDI to continue as further positive impacts from our reliability and vegetation management initiatives are experienced.



The tree related reliability performance for the Company was reviewed using NH PUC criteria. The chart below displays the number of tree related incidents per year and the number of customers interrupted from tree related incidents from 2015 to 2019. For comparison the five-year average of number of customers interrupted from tree related incidents is also shown.



The chart above shows a declining trend in the number of customers interrupted from 2016 through 2019 even though the number of tree related events increased from 2015 through 2018. Liberty has reviewed Unitil's Reliability Enhancement Program and Vegetation Management Program Annual Report and agrees with Unitil that these results indicate that, "While tree related outages are still occurring, they are occurring in areas

that do not affect the largest amount of people, and events on the mainline, where most people are affected, are decreasing"[5].

5 Unitil Energy Systems, Inc. Reliability Program Vegetation Management Program Annual Report 2018, Page 14-15.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix 1 - O&M Expenses

Line		(a)+ 2019 **Budgeted** Expenses	(b) 2019 **Actual** Expenses		(c) Variance	(d) Reference	(f) CY2018 Variance Actual vs. Budget
1	**VMP O&M**						
2	Work Planners for Veg Plan	$213,200	$ 220,693.73		$ 7,494	Appendix 5	We brought in a work planner to perform backlog on audits. We also implemented a new ptrogram to collect and record the vegatation work process.
3	Spot Tree Trimming	$36,900	35,466.05		$ (1,434)	Appendix 4 & 5	Includes a lower volume of unplanned spot work and customer concerns.
4	Trouble and Restoration Maintenance	$36,900	38,803.29		$ 1,903	Appendix 4 & 5	Includes a higher volume of unplanned trouble response/line department support
5	Planned Cycle Trimming	$980,000	961,637.45	*	$ (18,363)	Appendix 4 & 5	8L1 work along RR carried over to 2020. 40L3 work moved to 2020.
6	Police Detail Expenses - Cycle Trimming & Other	$400,000	323,139.50		$ (76,861)	Appendix 4 & 5	Includes a lower than anticipated cost for traffic control.
7	Hazard Tree Removal	$400,000	418,702.65		$ 18,703	Appendix 4 & 5	Includes a higher volume of tree removals.
8	Interim Trimming	$30,000	7,788.58		$ (22,211)	Appendix 4 & 5	Includes a lower volume of unplanned interim pruning needs.
9	Tree Planting	$5,000	4,500.00		$ (500)	Appendix 4 & 5	
10	Sub-Transmission Right of Way Clearing	$205,000	85,797.00		$ (119,203)	Appendix 4 & 5	Adjustment of work from 2019 to 2020.
11	Sub-Transmission Right of Way Sideline				$ -	Appendix 4 & 5	
12	Total VMP O&M Expenses	$ 2,307,000	$ 2,096,528		$ (210,472)	Appendix 5	
13	Less: Reimbursements from Consolidated	$ 480,000	$ 495,381				
14	VMP O&M Expenses Net of Consolidated Credits	**$ 1,827,000**	**$ 1,601,147**		**$ (210,472)**		

15 Note: Adjustment $40,559.93 - Include additional invoice not included in the December 2019 accrual

16
17

Appendix 2 - REP Capital Investments - Summary

Line	Projects	(a) 2019 Goal	(b) CY 2019 Capital Investment Budget(*)	(c) CY 2019 Actual Capital Investment	(d) CY 2018 Capital Carryover Investment	Reference
1	Bare Conductor Replacement	3.65 mi	$ 1,450,000	$ 1,212,204	$ 582,709	Appendix 3, lines 1,2,4,5
2	Single Phase Reclosing Installations	None	$ -	$ -	$ 43,020	Appendix 3, line 3
3	Single Phase Fuse Saver Installations	4 Locations	$ 50,000	$ -	$ -	Appendix 3, lines 6-9
4	Calendar Year 2019 Totals		$ 1,500,000	$ 1,212,204		
5	Previous CY Carryover		$ 100,000		$ 625,729	Appendix 3, lines 1-3
6	Totals		$ 1,600,000	$ 1,212,204	$ 625,729	
7					$ 1,837,934	

(*) From CY 2019 Plan submitted to Staff on November 15, 2018.

Appendix 3 - Reliability Enhancement Program Capital Costs

Line	(a) Activities	(b) Project Description	(c) Funding Project Number	(d) Work Order	(e) CY 2019 Budgeted Capital Investment (107)	(f) CY 2019 Capital Investment Closed to Plant (101/106/108)	(g) CY 2019 Capital Investment Closed to Plant from CY2018 carryover	(h) CY 2019 Total	(i) Estimated Capital Investment to be Booked in CY 2020 (107)
1	1L2 Bare Conductor Replacement Project - Meriden Rd Lebanon	Replace approximately 1 mile of bare conductors along Meriden Rd with 477 Spacer Cable.	8830-C18603	301846-01002			$ (8,288)	$ (8,288)	
2	12L2 Bare Conductor Replacement Project - Route 12 Walpole	Replace approximately 2.65 miles of bare conductors along Route 12 Walpole with 477 Spacer Cable.	8830-C18603	301846-01001			$ 590,998	$ 590,998	
3	14L1 Single Phase recloser installation - Dutton Rd - 14L1 Pelham	Install single phase tripping recloser at Dutton Rd Pelham NH	8830-C24073	301847-01001			$ 43,020	$ 43,020	$ 29,000
4	7L2 Bare Conductor Replacement Project - Shaker Hill Rd Enfield	Replace approximately 1.9 mile of bare conductors along Shaker Hill Rd with 477 Spacer Cable.	8830-1940	301946-01002 / 301849-01001	$ 725,000	$ 516,399		$ 516,399	$ 465,894
5	40L3 Bare Conductor Replacement Project - Sullivan St Charlestown	Replace approximately 1.9 miles of bare conductors along Sullivan St Charlestown with 477 Spacer Cable.	8830-1940	301946-01001	$ 725,000	$ 695,805		$ 695,805	$ 161,323
6	12L1 Fuse Saver installation - Gilsum Mine Rd Alstead	Install one Fuse Saver at Gilsum Mine Rd Alstead NH	8830-1947		$ 8,334	$ -		$ -	$ 8,334
7	12L1 Fuse Saver Installation - Ball Rd Acworth	Install one Fuse Saver at Ball Rd Acworth NH	8830-1947		$ -	$ -		$ -	$ -
8	12L2 Fuse Saver Installation - Watkins Hill Rd Walpole	Install three Fuse Savers at Watkins Hill Rd Walpole NH	8830-1947		$ 25,000	$ -		$ -	$ 25,000
9	14L2 Fuse Saver Installation - Sherburne Rd Pelham	Install one Fuse Saver at Sherburne Rd Pelham NH	8830-1947		$ -	$ -		$ -	$ -
10	14L2 Fuse Saver Installation - Ledge Rd Pelham	Install one Fuse Saver at Ledge Rd Pelham NH	8830-1947		$ 16,666	$ -		$ -	$ 16,666
11	Capital Investment Carryover from previous CY				**$ 100,000**				
12	Totals				$ 1,600,000	$ 1,212,204	$ 625,729	$ 1,837,934	$ 706,217

Appendix 4

Vegetation Management Activities

CY 2019

Line	Activities	Program Plan (*)	Reference
1	Spot Tree Trimming	As needed	See Appendix 6 for definitions
2	Trouble and Restoration Maintenance	As needed	See Appendix 6 for definitions
3	Planned Cycle Trimming	228.5	See Appendix 6 for definitions
4	Cycle Trimming Police Detail Expenses	As needed	See Appendix 6 for definitions
5	Hazard Tree Removal	As needed	See Appendix 6 for definitions
6	Enhanced Hazard Tree Removal	As needed	See Appendix 6 for definitions
7	Interim Trimming	As needed	See Appendix 6 for definitions
8	Tree Planting	As needed	See Appendix 6 for definitions
9	Subtransmission Right of Way Clearing	61.29 Acres & 24.9* Miles	See Appendix 6 for definitions
10	Other Police Detail Expenses	As needed	See Appendix 6 for definitions

	Substation	Feeder	OH Miles - Distribution	OH Miles - Completed		
12	LEBANON #1	1L1	16.90	16.90		
13	HANOVER #6	6L3	26.79	26.79		
14	CHARLESTOWN #8	8L1	21.56	20.32	***	1.24
15	SPICKET RIVER #13	13L2	23.95	23.95		
16	PELHAM #14	14L3	21.55	21.55		
17	PELHAM #14	14L4	17.08	17.08		
18	MONROE #15	15H1	12.56	12.56		
19	MOUNT SUPPORT #16	16L1	41.39	41.39		
20	MOUNT SUPPORT #16	16L3	9.23	9.23		
21	OLDE TROLLEY #18	18L2	10.93	10.93		
22	OLDE TROLLEY #18	18L3	5.99	5.99		
23	SLAYTON HILL #39	39L1	1.87	1.87		
24	MICHAEL AVE #40	40L1	9.42	9.42		
25	MICHAEL AVE #40	40L3	7.28	2.46	***	4.82
26	MOUNT SUPPORT #16	16L5**	2.00	2.00		
27	**SubTotal**		**228.50**	**222.44**		

28 ** Total miles are 9.19. However portions were complete as part of the 16L2 in the CY2017 and the 1L3
29 in the CY2018. An estimated 2.0 miles remain to be maintenanced.

	Subtransmission		OH Miles - Subtransmission		
31	Monroe 15H1	15H1	1.18 Miles/13.92 Acres	1.18	
32	BARRON AVE. #10/SALEM DEPOT #9	2352	3.15 Miles/ 30.13 Acres	0	***
33	BARRON AVE. #10	2393	.89 Miles/ 6.57 Acres	0	***
34	SPICKET RIVER #13	2376	.93 Miles/ 10.67 Acres	0.78	***
35	HANOVER #6/MT. SUPPORT #16/LEB #1	1303/1304	6.3 Miles	3.15	***
36	SubTotal		**24.9* Miles/ 61.29 Acres**	8.26	

37 * Total includes both sides of the ROW
38 *** Variances include:
39 8L1 - Waiting on a RailRoad Right of Entry Permit Approval, 1.24 miles.
40 40L3 - 2.46 miles of the 40L3 was completed as New Construction or as a double circuit.
41 Remaining portion had a disagreement on price. We moved to 2020.
42 2352 and 2393 were moved to 2020 in consideration of staff request and aligning with construction of 115KV.
43 2376W not yet completed due to abutter conflict and scheduling.
44 1303/1304 Sideline completed 1/2 the length in 2019 and moved 1/2 work to 2020.

Appendix 5 - VMP Spend by Month

VM Only Jobs	GL Posting Month														Revised
Job	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Grand Total	Adjustments	Total
VM1000	$ 294.29	$ 45,781.21	$ 21,670.11	$ 14,140.08	$ 14,750.39	$ 19,850.81	$ 18,412.37	$ 37,503.06	$ 14,111.84	$ 9,926.89	$ 26,991.90	$ (2,739.22)	$ 220,693.73		$ 220,693.73
VM1010	(1,497.56)	170.79	1,016.41	1,236.94	11,133.39	7,582.91	(1,323.11)	14,588.30	(4,459.49)	447.69	2,908.60	3,661.18	35,466.05		35,466.05
VM1210	1,695.57	2,494.64	2,057.02	4,111.15	11,665.12	(847.23)	5,122.51	3,497.04	1,355.43	9,751.69	(3,717.51)	1,617.86	38,803.29		38,803.29
VM1215	(24,554.92)	142,519.77	108,493.91	116,270.60	177,031.81	128,716.18	(10,716.42)	56,716.15	75,952.83	44,779.02	39,634.58	66,234.01	921,077.52	40,559.93	961,637.45
VM1218	(66,030.00)	29,580.00	39,096.00	13,752.00	42,738.00	87,890.58	(18,991.08)	32,482.00	47,400.00	27,970.00	45,538.00	41,714.00	323,139.50		323,139.50
VM1220		5,578.28	56,011.74	43,079.11	36,459.76	18,243.43	2,888.01	15,209.86	16,631.88	29,211.45	29,012.07	166,377.06	418,702.65		418,702.65
VM1235							720.45	10,277.30	(3,522.85)	5,978.70	(3,914.35)	(1,750.67)	7,788.58		7,788.58
VM1240					9,000.00	(4,500.00)							4,500.00		4,500.00
VM1280		5,867.41						8,100.00	26,965.42	(29,557.06)	(4,153.82)	78,575.05	85,797.00		85,797.00
Grand Total	**$ (90,092.62)**	**$ 231,992.10**	**$ 228,345.19**	**$ 192,589.88**	**$ 302,778.47**	**$ 256,936.68**	**$ (3,887.27)**	**$ 178,373.71**	**$ 174,435.06**	**$ 98,508.38**	**$ 132,299.47**	**$ 353,689.27**	**$ 2,055,968.32**	**$ 40,559.93**	**$ 2,096,528.25**

Note: Adjustment $40,559.93 - Include additional invoice not included in the December 2019 accrual

VMP Definitions

Work Planning: Work planning process is a systematic approach to prescribing vegetation maintenance work around power lines. It involves the patrol and inspection of the power line corridor on a span-by-span basis. Work planning begins with an experienced (and typically degreed) forester working as an inspector (work planner). The clearances and tree selection parameters are pre-determined by the utility. The prescribed work is executed by the line clearance contractor.

Spot Tree Trimming: (Unplanned Work)
This captures all charges for field follow up, review and execution of corrective action required, if any, to mitigate vegetation management concerns requested or reported by a customer.

Trouble and Restoration Maintenance: (Unplanned Work)
This captures all charges for response and corrective action to mitigate isolated tree related trouble, overhead line requests to mitigate tree related trouble and storm responses not covered by a storm specific charge number.

Planned Cycle Trimming:
This captures all charges for annual fiscal year planned cycle pruning activities but does not include police detail expenses.

Cycle Trimming/Other Traffic Control Expenses:
This captures all charges for traffic control expenses associated with annual planned cycle trim, tree removals, spot trimming and other unplanned work requiring traffic control.

Hazard Tree Removal:
This captures all charges for removal of dead, dying and/or structurally weak trees, limbs and leads.

Interim Trimming: (Unplanned work)
This captures all charges for mitigation of tree conditions that threaten reliability of one or more sections of primary conductor on a circuit or circuits not contained in the current fiscal year's annual plan of work.

Tree Planting:
This captures all charges for tree replacements in exchange for tree removals of full clearance, tree replacement to remediate property owner complaints, trees planted for Arbor Day events.

Sub-transmission Right of Way Clearing:
This captures all charges for activities related to cutting, clearing, herbicide application and danger tree removal on substation supply lines up to 46 kV.

Appendix 7 - 5 year rolling averages SAIDI/SAIFI

CY	Sum of CI	Sum of CMI	Sum of SAIFI (right)	5-Year Avg. SAIFI (right)	Sum of SAIDI (left)	5-Year Avg. SAIDI (left)
2000	75,896	4,079,729	2.00		107.76	
2001	85,017	8,219,366	2.22		214.39	
2002	65,099	6,042,438	1.68		155.28	
2003	56,341	3,971,111	1.43		100.86	
2004	67,956	8,313,277	1.71	1.81	207.53	157.16
2005	84,188	12,085,278	2.08	1.82	301.25	195.86
2006	106,935	10,363,197	2.70	1.92	263.83	205.75
2007	79,070	9,196,797	1.96	1.98	228.36	220.37
2008	93,197	8,609,475	2.30	2.15	212.05	242.60
2009	47,270	4,763,099	1.17	2.04	115.94	224.29
2010	72,089	8,156,936	1.74	1.97	196.44	203.32
2011	49,176	4,997,759	1.17	1.67	119.60	174.48
2012	69,677	5,829,537	1.70	1.62	140.06	156.82
2013	68,033	6,792,013	1.64	1.48	162.28	146.86
2014	63,878	7,145,798	1.54	1.56	172.12	158.10
2015	24,893	2,618,074	0.58	1.33	61.05	131.02
2016	56,784	5,124,815	1.31	1.35	118.14	130.73
2017	39,831	5,156,572	0.91	1.19	117.74	126.27
2018	32,681	5,406,674	0.74	1.01	121.79	118.17
2019	27,269	3,161,319	0.61	0.83	70.66	97.88
2020 Projection	33,985	4,053,457	0.83	0.88	97.88	105.24

Appendix 8

Liberty Utilities (Granite State Electric) Corp.
Reliability Enhancement Program and Vegetation Management Program
Docket No. DE 13-063

I. REP and VMP Commitment

Beginning April 1, 2014 and until the conclusion of Liberty's next distribution rate case, Liberty will continue its Reliability Enhancement Program ("REP") and a Vegetation Management Program ("VMP") (collectively, the "Program"), as set forth below.

II. Definitions of REP and VMP Activities

a. Activities included in the REP are the following:

i. Spacer Cable Expansion/Bare Conductor Replacement
ii. Single Phase Recloser Replacement/Expansion
iii. Trip Saver Applications

b. **Activities and expenses included in the VMP are set forth below**:

i. Spot Tree Trimming;
ii. Trouble & Restoration Maintenance;
iii. Planned Cycle Trimming;
iv. Cycle Trimming Police Details Expenses;
v. Hazard Tree Removal;
vi. Interim Trimming;
vii. Tree Planting;
viii. Subtransmission Right of Way Clearing; and
ix. Other Police Detail Expenses.

III. REP and VMP for FY 2014 and Thereafter

a. Beginning with November 15, 2014, Liberty will provide its REP and VMP plan (the "Plan") to Staff for the following calendar year for Staff s review. Liberty will meet with Staff in technical sessions to discuss the Plan, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent calendar year. After review by Staff, Liberty will take all reasonable steps it deems appropriate to carry out and implement the Plan, taking into account the comments of Staff. Review by Staff of the Plan does not relieve Liberty of its obligation to operate its business and maintain safe, reliable service through expenditures and other capital investments in the ordinary course of business that are not set forth in the Plan, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plan.

b. The Plan shall provide a description of the activities along with targeted expenditures and investments of the proposed Plan to be implemented during the

following calendar year. The Plan will itemize the proposed activities by general category and provide budgets for both operation and maintenance ("O&M") expenses and capital investments expected from implementation of the Plan. The O&M budget will be $1,360,000 (the "Base Plan O&M") for the calendar year ("Base Plan O&M Budget"). Liberty may also provide for consideration an alternative Plan with O&M budgets that exceed the O&M Base Amount for the calendar year. Liberty will reconcile actual expenditures and investments with the Base Plan O&M amount of $1,360,000 and shall be subject to the REP/VMP Adjustment Provision, as set forth in Section IV below. All of the combined expenses will be counted against the Base Plan O&M amount, along with any REP-related O&M that does not relate to a VMP category.

IV. REP/VMP Adjustment Provision

a. During each calendar year, Liberty shall track all O&M expenses incurred in implementing the components of the REP and VMP Plan. By March 15 of each year, Liberty will make a reconciliation filing with the Commission. To the extent that Liberty, in implementing the Plan, incurs expenses in an amount less than the Base Plan O&M amount, the difference between the Base Plan O&M amount and the amount of expenses actually incurred shall be refunded to customers or credited to customers for future REP/VMP program O&M expenditures, as the Commission determines is appropriate, with interest accruing at the customer deposit rate.

b. To the extent the Plan submitted for review prior to the calendar year includes a budget higher than the Base Plan O&M Budget and Liberty incurs expenses over the Base Plan O&M amount (consistent with the alternative budget reviewed by Staff), the incremental expense above the Base Plan O&M amount shall be included in rates, subject to Commission approval, through a uniform adjustment factor on a per kilowatt-hour basis and recovered over a twelve month period, commencing for usage on and after May 1, with interest accruing at the customer deposit rate. Any over or under-recoveries at the end of the twelve month period shall be taken into account in the next REP/VMP Adjustment Provision reconciliation period.

V. REP Capital Investment Allowance

The REP capital investment target shall be $1 million annually. Liberty shall track all capital investments made in accordance with the REP for each calendar year. At the same time that Liberty makes its reconciliation filing for the REP/VMP Adjustment reconciliation, Granite State shall file a report detailing the actual amount of capital investments made in accordance with implementing the REP during the prior calendar year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate base, using Liberty's current Commission approved capital structure and debt and equity. Provided that the investments were made in accordance with the REP, Liberty will be allowed, subject to Commission approval, a permanent increase in its base distribution rates to recover the annual revenue requirement for those investments. This permanent REP Capital Investment Allowance

will take effect for usage on and after May 1, at the same time as any REP/VMP Adjustments are implemented for the preceding calendar year as discussed in Section IV above.

VI. Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

Base distribution rates shall be increased by the ratio of: (i) the incremental revenue requirement associated with the REP capital investment; and (ii) forecasted base distribution revenue for the prospective year.

VII. Annual Report, Plan Deviations, and SAIDI/SAIFI Results

a. At the same time Liberty makes its reconciliation and rate adjustment filing (by March 15 of each year), Liberty will file an annual report on the prior calendar year's activities. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, Liberty would include an explanation of any deviations in the report. For cost recovery purposes, Liberty has the burden to show that any deviations were due to circumstances out of its reasonable control or, if within its control, were reasonable and prudent. Included in the annual report, Liberty will report its SAIDI and SAIFI results for the prior calendar year.

b. Liberty shall also report SAIDI/SAIFI results:

   i. Inclusive of all events identified in items ii, iv and v below;
   ii. Using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366.
   iii. On a rolling five-year average for each metric in order to minimize the impact of uncontrollable factors;
   iv. Excluding the effect on performance by supply assets owned by others given the potential impact of transmission on Liberty's reliability performance;
   v. Excluding planned and notified outages from its calculation of SAIDI and SAIFI, and;
   vi. Consistent with the Puc 300 rules.

c. The Commission's definition of a major storm qualifying for exclusion from SAIDI and SAIFI reporting is 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 20-_____

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Reliability Enhancement Program and Vegetation Management Program

Calendar Year 2019 Annual Report and Reconciliation and Rate Adjustment Filing

DIRECT TESTIMONY

OF

JOEL RIVERA

AND

HEATHER GREEN

March 13, 2020

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Joel Rivera

Q. Mr. Rivera, please state your full name and business address.

A. My name is Joel Rivera and my business address is 9 Lowell Road, Salem, New Hampshire.

Q. By whom are you employed and in what position?

A. I am employed as the Manager of GIS and Electric System Planning by Liberty Utilities Service Corp., which provides services to Liberty Utilities (Granite State Electric) Corp. ("Granite State" or "the Company"). In my capacity as Manager of GIS and Electric System Planning, I am responsible for managing the electric system capacity, reliability, integrity, interconnections, protection systems, equipment and system upgrades, prioritization, and associated budget estimates.

Q. Please describe your educational background and certifications.

A. I graduated from Universidad Interamericana de Puerto Rico in 2003, earning a bachelor's degree in electrical engineering. I also graduated from the University at Buffalo in 2017, earning a master's degree in electrical engineering. I am licensed in the State of New Hampshire as a professional engineer.

Q. Please describe your professional experience.

A. In 2006, I began my engineering career as an associate engineer with National Grid USA ("National Grid") in Buffalo, New York. In 2009, I progressed to senior engineer in the distribution planning department for National Grid's electric distribution system in

Buffalo, New York. Between 2009 and 2013, I was promoted to lead engineer and was responsible for distribution planning, asset management, protection, and reliability functions for National Grid's electric distribution system in both New England and New York. In 2013, I assumed the role of Planning Engineer - Electric for Liberty Utilities Service Corp. In 2018, I was promoted to my current position as Manager of GIS and Electric System Planning and am responsible for electric and gas map records and developing and implementing the Company's electric planning initiatives in the electric delivery business.

Q. Have you previously testified before the New Hampshire Public Utilities Commission (the "Commission")?

A. Yes, I have previously testified before the Commission on the Company's Reliability Enhancement Program in 2018 and 2019. I have also submitted written testimony in support of the Company's rate case in Docket No. DE 19-064.

<u>Heather Green</u>

Q. Mrs. Green, would you please state your full name and business address?

A. My name is Heather Green and my business address is 407 Miracle Mile, Lebanon, New Hampshire.

Q. By whom are you employed and in what position?

A. I am employed by Liberty Utilities Service Corp. as the Program Manager of Inspections and Vegetation. In that capacity I support Electric Operations and plan, budget, and manage Granite State's inspection and vegetation management programs; vendor

performance; and storm and regulatory support on the distribution and sub transmission assets.

Q. Please describe your educational background.

A. I graduated from Purdue University in 1994 with a Bachelor's Degree of Science in Forestry with an Urban Option.

Q. Please describe your professional experience.

A. I joined Liberty Utilities Service Corp. in March of 2018. Prior to that I worked for the State of New Hampshire Division of Forests and Lands as a Community Forester. I worked in the role of Municipal Arborist from 1998 to 2013 in the Chicago suburbs in both a north shore community of Park Ridge and a south shore community of Oak Lawn. I have also worked for a variety of commercial tree care companies and gardens.

I have been very active in professional organizations. I currently sit on the Board of Directors as the President Elect for the New England Chapter of the International Society of Arboriculture (NEC-ISA). I also held a variety of positions on the Illinois Arborist Association (IAA) Board of Directors, including President. I am a current member of the New Hampshire Community Forestry Advisor Committee.

Q. Have you previously testified before the Commission?

A. Yes, I have previously testified before the Commission on the Company's Vegetation Management Program in 2019. I have also submitted written testimony in support of the Company's rate case in Docket No. DE 19-064 with respect to the Company's vegetation management practices.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. Our testimony provides the Commission with background information regarding the Reliability Enhancement Program ("REP") and Vegetation Management Program ("VMP") that Granite State implemented during Calendar Year 2019 and as described in the Company's Calendar Year 2019 Reliability Enhancement Program and Vegetation Management Program Report dated March 13, 2020 (the "CY2019 REP/VMP Report"), submitted with this filing. This testimony provides support for the Company's request to recover $1,601,147 for 2019, which represents $101,147 of 2019 O&M expense above the Base Plan operating and maintenance ("O&M") amount of $1,500,000. This testimony also supports the Company's request to recover the revenue requirement of $210,503, which is the amount associated with a total of $1,837,934 in capital investment during two program years, CY2018 and CY2019. Information regarding the calculation of the REP/VMP Adjustment Provision and the REP Capital Investment Allowance, and the associated rate impacts, is set forth in the joint testimony of David Simek and Adam Hall, which is a part of this filing.

III. OVERVIEW OF REP AND VMP

Q. Please explain the purpose of the REP and VMP.

A. The Company has continued its Vegetation Management and Reliability Enhancement Programs at agreed upon spending levels subject to annual Commission approval. *See* Order No. 25,638 (March 17, 2014) (approving the Settlement Agreement in Docket No. DE 13-063, the "Settlement Agreement"), as amended by Order No. 26,005 (April 12,

2017) (approving the Settlement Agreement in Docket No. DE 16-383). In general, the REP and VMP include categories of both capital (REP) and O&M (VMP) spending targeted to improve reliability performance. The REP and VMP are premised on the understanding that a certain amount of annual spending on both capital and O&M activities is necessary to maintain the safety and reliability of the Company's electric distribution system. The Settlement Agreement in Docket No. DE 16-383 assumed that a base amount of $1,500,000 would be spent on O&M activities associated with the VMP during a fiscal year. In addition, the REP program includes a targeted budget of $1,500,000 for REP capital investments for each calendar year.

Q. Please describe what types of activities were included in the 2019 REP and VMP.

A. The REP capital budget included installation of six new Fuse Savers. A significant portion of this budget was also targeted towards the re-conductoring of approximately 3.8 miles of bare mainline primary conductor with spacer cable. These projects are identified in Appendices 2 and 3 of the CY2019 REP/VMP Report. The vegetation management activities consisted of Planned Cycle Trimming, Tree Removal, Tree Planting, Right of Way work, and Interim, Spot, and Trouble Tree Trimming, identified in Appendices 4 and 5 of the CY2019 REP/VMP Report.

Q. Please explain how the Company decides to allocate funds towards vegetation management and reliability activities within a given year's budget and the process the Company uses to determine which REP/VMP projects to undertake in any given year.

A. Each year, the Company develops an Annual Work Plan that is designed to achieve the overriding performance objectives of the business (safety, reliability, efficiency, customer satisfaction, and environmental responsibility). At the outset, the Company compiles a draft work plan that consists of proposed spending for asset replacement, system capacity, and performance initiatives, and individual capital projects and work activities required to comply with franchise or tariff requirements such as pole relocations, response to damage/failure, and new business construction. Each potential project specified within the plan includes a business category/justification for the project and estimated costs. The Company then prioritizes the projects based on the relative risk or opportunity associated with each project proposal to facilitate the selection of appropriate projects to be included in the Annual Work Plan. All of the proposed projects then undergo review and are prioritized to achieve an optimized portfolio of projects considering the reliability performance data compared to the reliability improvements targeted by the various programs and the deliverability of the various programs within the calendar year. The process is designed to ensure the Company arrives at a budget that provides the optimal balance in terms of selecting the investments necessary to maintain and improve the performance of the system, while also ensuring a cost-effective use of the Company's available resources.

Q. Please explain how REP capital investments relate to the other capital investments made by the Company on its system.

A. The REP capital improvements are developed within the Company's overall capital investment plans. The REP/VMP Plan is a subset of that plan and seeks to develop and implement initiatives to improve the Company's delivery system performance while still meeting investment obligations in the areas of franchise/tariff requirements, capacity, and asset replacement.

Q. Please summarize the Company's actual results from the CY2019 REP/VMP activities and the level of recovery the Company is requesting.

A. For CY2019, Granite State proposed to spend $1,600,000 for capital investments. The final spending level was $1,837,934 and further details of the projects and actual spending amounts are detailed in the Report.

With respect to vegetation management activities, the Company initially proposed to spend $2,307,000 for VMP, which included $480,000 that Granite State would bill to Consolidated Communications for its share of planned vegetation maintenance work. Those reimbursements were excluded from the total amount of VMP O&M expenses to be recovered, resulting in an adjusted total of VMP O&M expense budget of $1,827,000. The actual spending for CY2019 was $2,096,528. After applying credits of $495,381 from Consolidated Communications, the resulting total actual spending amount was $1,601,147.

Q. Please explain why the Company's actual O&M spending for CY2019 varied from the Company's original budget.

A. The major spending variances are as follows below:

- Work planning: $7,494 more spent than anticipated
- Spot Tree Trimming: $1,434 less than anticipated
- Trouble and Restoration Maintenance: $1,903 more than anticipated
- Planned Cycle Trimming: $18,363 less than anticipated
- Police Detail (Traffic Control): $76,861 less than anticipated
- Hazard Tree Removal: $18,703 more than anticipated
- Interim Trimming: $22,211 less than anticipated
- Tree Planting: $500 less than anticipated
- ROW: $119,203 less than anticipated

Additional details of the variances are available in the Report.

Q. Please explain why the Company's actual capital spending for CY2019 varied from the Company's original budget.

A. The major spending variances are as follows below:

- Bare conductor replacement:
    - 2018: $582,709 in carryover from 2018 for projects in service in 2019
    - 2019: $237,796 lower than anticipated
- Single phase Reclosing installations:

- 2018: $43,020 in carryover from 2018 for projects in service in 2019
- 2019: $50,000 lower than anticipated due to deferred projects

Additional details of the variances, including discussion of carryover costs from 2019 to 2020, are available in the Report.

Q. Please summarize the reliability results shown in the CY2019 REP/VMP Report.

A. The Company met and exceeded its SAIFI and SAIDI targets of 1.01 and 118.17 minutes, respectively, which are based on a five-year rolling average and are shown in Appendix 7. The actual results for CY2019 were 0.61 and 70.66, respectively. For the past five years, the Company has met all of its SAIFI and SAIDI targets. Granite State expects this overall positive performance in SAIFI and SAIDI to continue as further positive impacts from our reliability initiatives are experienced. Additional details of the reliability results are provided in the Report.

Q. Are the REP/VMP expenditures for which the Company is now seeking recovery reasonable?

A. Yes. As described in this filing, the expenditures were reasonable because these expenditures were made for programs that are specifically referenced in the Settlement Agreement and were necessary to achieve continued improvement in the Company's system reliability. The work undertaken for vegetation management, single phase recloser installations, and bare conductor replacement was incurred for the explicit purpose of improving system reliability and is consistent with the intent of the Secretarial Letter. These expenditures are expected to generate real customer benefits in the form of

improved reliability performance. As such, the Commission should approve recovery of these expenditures and permit the requested rate adjustments to become effective for usage on and after May 1, 2020.

IV. CONCLUSION

Q. Does that conclude your testimony?

A. Yes, it does.

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 20-_____

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Reliability Enhancement Program and Vegetation Management Program

Calendar Year 2019 Reconciliation Filing

DIRECT TESTIMONY

OF

DAVID B. SIMEK

AND

ADAM M. HALL

March 13, 2020

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Q. Please state your full name and business address.

A. (DS) My name is David B. Simek. My business address is 15 Buttrick Road, Londonderry, New Hampshire.

(AH) My name is Adam M. Hall. My business address is 15 Buttrick Road, Londonderry, New Hampshire.

Q. Please state by whom you are employed.

A. We are employed by Liberty Utilities Service Corp. ("Liberty"), which provides service to Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities ("Granite State" or "the Company").

Q. Please describe your educational and professional background.

A. (DS) I graduated from Ferris State University in 1993 with a Bachelor of Science in Finance. I received a Master's of Science in Finance from Walsh College in 2000. I also received a Master's of Business Administration from Walsh College in 2001. In 2006, earned a Graduate Certificate in Power Systems Management from Worcester Polytechnic Institute. In August 2013, I joined Liberty as a Utility Analyst and I was promoted to Manager, Rates and Regulatory Affairs in August 2017. Prior to my employment at Liberty, I was employed by NSTAR Electric & Gas ("NSTAR") as a Senior Analyst in Energy Supply from 2008 to 2012. Prior to my position in Energy Supply at NSTAR, I was a Senior Financial Analyst with the NSTAR Investment Planning group from 2004 to 2008.

(AH) I graduated from Siena College in 2014 with a Bachelor of Science in Finance. I also received a Master's of Business Administration from Franklin Pierce University in 2016. I joined Liberty Utilities as an Analyst, Rates and Regulatory Affairs in January 2019. Prior to this, I was employed by Southern New Hampshire University from 2016 to 2019.

Q. Have you previously testified in regulatory proceedings before the New Hampshire Public Utilities Commission (the "Commission")?

A. (DS) Yes, I have testified on numerous occasions before the Commission.

(AH) No, I have not.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony?

A. This testimony supports Granite State's request for Commission approval to recover the incremental operating and maintenance ("O&M") expense and the revenue requirement for capital investment associated with the Reliability Enhancement Program ("REP") and Vegetation Management Program ("VMP") for 2019. The programs were implemented during calendar year 2019 ("CY2019") as described in the Company's CY 2019 REP and VMP Report ("CY2019 REP/VMP Report") included in this filing.

The Company seeks to recover $101,147 of CY2019 O&M costs. This amount is incremental CY2019 O&M spending above the Base Plan operating and maintenance ("O&M") amount of $1,500,000. The Company also seeks to recover the revenue requirement of $210,503, associated with a total of $1,837,934 in capital investment.

III. SUMMARY OF SCHEDULES

Q. Please describe Schedule DBS-AMH-1 attached to this testimony.

A. Schedule DBS-AMH-1 consists of 16 pages and provides the calculation of the revenue requirement for the capital and O&M expenditures for CY2019. Schedule DBS-AMH-1, Page 1 provides the summary of the revenue requirement calculation. Schedule DBS-AMH-1, Page 2 shows the total program spend for CY2019 for O&M was $2,096,528. After subtracting $495,381 for amounts billed to Consolidated Communications ("Consolidated") for vegetation management, the net O&M spending was $1,601,147. As compared to the base level in rates of $1,500,000, the net result is a recovery for CY2019 in the amount of $101,147. The total REP capital investment during CY 2019 was $1,837,934. The revenue requirement associated with that investment is $210,503, and the calculation of that amount is detailed on Schedule DBS-AMH-1, Page 3. The remaining pages of Schedule DBS-AMH-1 provide supporting detail for the tax depreciation associated with the annual capital investment.

Q. What is the total amount owed to Granite State for 2019 from Consolidated?

A. Granite State invoiced Consolidated $495,381 for CY2019.

Q. Please describe the calculation of tax depreciation expense that underlies the calculation the deferred tax reserve described above.

A. Tax depreciation expense for federal and state taxes for each year is comprised of three components: (1) a capital repairs tax deduction; (2) bonus depreciation for federal tax only; and (3) accelerated depreciation based on the Internal Revenue Service's ("IRS")

Modified Accelerated Cost Recovery System ("MACRS") rates for 20-year utility property.

The calculation of the components of tax depreciation expense described above for each year is shown on Pages 4 through 16 of Schedule DBS-AMH-1. The capital repairs deduction component is shown on Lines 1 through 4 of Pages 4 through 16. During 2009, the IRS issued guidance under Internal Revenue Code ("IRC") Section 162 related to certain expenditures that could be deemed to be repair and maintenance expenses, and thus eligible for immediate tax deduction for income tax purposes, but were capitalized by the Company for book purposes. This tax deduction has the effect of increasing deferred taxes and lowering the revenue requirement that customers will pay under the REP. The percentage of REP capital expenditures that could be classified as repair expense varies by year. For calendar years 2013 through 2019, none of the REP capital work performed was in the nature of capital repairs, so zero percent (0%) was used in the calculation of the revenue requirement.

Bonus depreciation, as allowed in the respective years, for federal tax purposes was then calculated on the REP capital additions, net of additions subject to the capital repairs deduction. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50 percent bonus depreciation deduction for certain eligible plant additions. Congress subsequently passed additional laws that extended and changed the bonus depreciation rate over the succeeding years. The Tax Cuts and Jobs Act of 2017 eliminated the eligibility of utility property for bonus depreciation beginning in 2018. As

such, the bonus depreciation deduction rate applicable to capital additions made in CY2019 is zero percent (0%) percent.

For federal tax purposes, any capital additions not subject to the capital repairs deduction or bonus depreciation are subject to the 20-year MACRS depreciation rates as shown in the Remaining Tax Depreciation (Federal) section of Pages 4 through 16. For state tax purposes, any capital additions not subject to the capital repairs deduction are then subject to 20-year MACRS depreciation rates as shown in the Remaining Tax Depreciation (State) section of Pages 4 through 16. Total tax depreciation for federal and state taxes is shown on the last two lines of Pages 4 through 16.

Q. Please describe how the return allowance for the REP capital investment was calculated.

A. The Company's year-end net rate base of $9,495,444 on which the Company's return allowance is calculated, is shown in DBS-AMH-1, Page 3, Line 56.

The return allowance for the REP capital investment for each rate adjustment is based on the prior year-end rate base times the Company's currently approved pre-tax weighted average cost of capital of 9.43 percent, determined using the capital structure and equity found in Section II A of the Settlement Agreement in Docket No. DE 16-383 with an updated weighted average cost of debt. The resulting return allowance is the fiscal year-end rate base of $9,495,444 times the pre-tax return rate of 9.43 percent, or $895,485 as shown on Line 61. Annual depreciation expense of $341,565 and property taxes of $335,704, on Lines 62 and 63, respectively, are added to the return amount to arrive at

the total revenue requirement of $1,572,755 on Line 64. The property tax amount is based on the actual ratio of municipal tax expense to net plant in service for CY2018, as calculated in DBS-AMH-5 applied to the year-end net plant in service, or the sum of Lines 53 and 54.

Q. Why didn't the Company calculate book depreciation and property tax amounts for CY2019?

A. The Company uses the FERC Form 1 to calculate the book depreciation and property tax expenses for the REP/VMP reconciliation filing. The FERC Form 1 for 2019 will not be available until mid-April and according to the Settlement Agreement in Docket No. DE 13-063, the REP/VMP filing is due by March 15 each year. Due to the fact that the REP/VMP filing is due prior to the FERC Form 1 completion, the property tax and book depreciation rates for the 2019 calendar year are not available at the time of this filing, thus Liberty used the 2018 calendar year calculation as seen in Schedules DBS-AMH-5 and DBS-AMH-6. The use of prior year property tax information for the purpose of the calculation is consistent with what has been approved in prior years' filings.

Q. Please describe Schedule DBS-AMH-2 attached to this testimony.

A. Schedule DBS-AMH-2 provides the calculation of proposed rates for i) the capital expenditures recorded during CY2019 (i.e., the "REP Capital Investment Allowance"), and ii) the REP/VMP Adjustment Factor associated with incremental O&M spending. The total percentage adjustment proposed for the REP Capital Investment Allowance is 0.50%. The Company is proposing a REP/VMP Adjustment Factor of $0.00008 per kilowatt-hour (kWh), a decrease of $0.00044 per kWh from the $0.00052 per kWh

Adjustment Factor calculated in Docket No. DE 19-051 (see Revised Schedule DBS-2. Page 3 of 4, filed April 26, 2019).

Q. Please describe the procedure for adjusting distribution rates for the REP Capital Investment Allowance.

A. The procedure for adjusting distribution rates is in Schedule DBS-AMH-2. On page 2 of Schedule DBS-AMH-2, the capital investment allowance related to the REP on Line 1 is divided by the revenue requirement (Line 2) calculated by using a forecast of billing determinants, which are then applied to each of the Company's base distribution charge components.

Q. Please provide a summary of Schedule DBS-AMH-3 attached to this testimony.

A. Schedule DBS-AMH-3 provides the reconciliation of the CY 2018 O&M Expense. mThe Company is proposing to refund $26,163 through the REP/VMP Adjustment Factor effective May 1, 2020.

IV. EFFECTIVE DATE AND BILL IMPACT

Q. How and when is the Company proposing that this rate change be implemented?

A. The Company is proposing that these distribution rate changes be made effective for service rendered on and after May 1, 2020.

Q. Has the Company determined the impact of these REP/VMP rate changes on customers' bills?

A. Yes. For an Energy Service residential customer using 650 kWh per month the total bill impact of the REP/VMP rates proposed in this filing, as compared to rates in effect today, is a monthly bill decrease of $0.06, or 0.05%.

V. CONCLUSION

Q. Does this conclude your testimony?

A. Yes, it does.

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Annual Rate Changes
Annual Incremental Rate Adjustments

		Actual 7/1/2008 (a)	Actual 7/1/2009 (b)	Actual 7/1/2010 (c)	Actual 7/1/2011 (d)	Actual 7/1/2012 (e)	Actual 7/1/2013 (f)	Actual 6/1/2014 (g)	Actual 5/1/2015 (h)	Actual 6/1/2016 (i)	Actual 5/1/2017 (j)	Actual 5/1/2018 (k)	Actual 5/1/2019 (l)	Actual 5/1/2020 (m)
Annual Incremental Rate Adjustments														
1	REP/VMP O&M Adjustment Factor	$0	$113,832	$1,047,770	($758,113)	($295,207)	($52,081)	($275,840)	($210,585)	$346,184	($76,104)	$552,414	$444,301	$101,147
2	REP Capital Program	$165,840	$75,740	$163,663	$102,941	($18,005)	$125,829	$37,374	$253,423	$180,132	$120,019	$76,833	$149,538	$210,503
3	Total for Fiscal Year	$165,840	$189,572	$1,211,433	($655,172)	($313,213)	$73,748	($238,466)	$42,838	$526,316	$43,915	$629,247	$593,839	$311,650
4	Termination of Prior Period O&M Recovery	$0	$0	($113,832)	($1,047,770)	$758,113	$295,207	$52,081	$275,840	$210,585	($346,184)	$76,104	($552,414)	($444,301)
5	Net Change in Recovery	$165,840	$189,572	$1,097,601	($1,702,942)	$444,900	$368,955	($186,385)	$318,678	$736,901	($302,269)	$705,351	$41,425	($132,651)

Notes:
Line 1 From DBS-AMH-1, Page 2 of 15, Line 7
Line 2 From DBS-AMH-1, Page 3 of 15, Line 66
Line 3 Line 1 + Line 2
Line 4 Line 1 of Prior Year
Line 5 Line 3 + Line 4

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP O&M Adjustment Factor
Computation of Annual Revenue Requirement
CY 2019 Actual

		Actual FY 2008 (a)	Actual FY 2009 (b)	Actual FY 2010 (c)	Actual FY 2011 (d)	Actual FY 2012 (e)	Actual FY 2013 (f)	Actual CYS 2013 (f)	Actual CY 2014 (g)	Actual CY 2015 (h)	Actual CY 2016 (i)	Actual CY 2017 (j)	Actual CY 2018 (k)	Actual CY 2019 (l)
	Incremental VMP and REP O&M Spend													
1	Actual VMP and REP Program Spending	$2,169,258	$1,477,916	$2,556,530	$1,245,985	$1,467,486	$1,560,973	$1,055,861	$1,395,166	$1,994,184	$1,633,896	$2,495,406	$2,422,443	$2,096,528
2	Proposed Annual Program Budget	$1,950,000	$1,473,832	$2,556,530	$1,552,000	$1,556,000	$1,721,585	$1,238,200	$1,521,200	$1,860,397	$1,948,000	$2,281,803	$2,157,086	$2,307,000
3	Amount Subject to Recovery	$1,950,000	$1,473,832	$2,556,530	$1,245,985	$1,467,486	$1,560,973	$1,055,861	$1,395,166	$1,994,184	$1,633,896	$2,495,406	$2,422,443	$2,096,528
4	VMP and REP Base Spending Level	$1,950,000	$1,360,000	$1,360,000	$1,360,000	$1,360,000	$1,360,000	$1,020,000	$1,360,000	$1,360,000	$1,360,000	$1,500,000	$1,500,000	$1,500,000
5	Total Revenue Requirement	$0	$113,832	$1,196,530	($114,015)	$107,486	$200,973	$35,861	$35,166	$634,184	$273,896	$995,406	$922,443	$596,528
6	Less Reimbursements from Consolidated	$0	$0	($148,760)	($644,098)	($402,693)	($253,054)	($311,701)	($245,751)	($288,000)	($350,000)	($442,992)	($478,142)	($495,381)
7	Total Incremental Revenue Requirement	$0	$113,832	$1,047,770	($758,113)	($295,207)	($52,081)	($275,840)	($210,585)	$346,184	($76,104)	$552,414	$444,301	$101,147
8	Total O&M Recovery	$1,950,000	$1,473,832	$2,407,770	$601,887	$1,064,793	$1,307,919	$744,160	$1,149,415	$1,706,184	$1,283,896	$2,052,414	$1,944,301	$1,601,147

Notes:
Line 1 2019 Actual VMP and REP program spending
Line 4 VMP and REP base spending level per Docket No. DE 16-383
Line 5 Line 3 minus Line 4
Line 6 Reflects reimbursements related to vegetation management expenses from Consolidated Communications
Line 7 Line 5 plus Line 6
Line 8 Line 3 plus Line 6

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Computation of REP Revenue Requirement
CY 2019 Actual

		Revised FY 2008	Revised FY 2009	Revised FY 2010	Revised FY 2011	Revised FY 2012	Actual FY 2013	Actual CYS 2013	Actual CY 2014	Actual CY 2015	Actual CY 2016	Actual CY 2017	Actual CY 2018	Actual CY 2019
	Deferred Tax Calculation													
1	REP Program Annual Spend	$950,000	$500,000	$876,243	$610,835	$398,239	$545,916	$416,755	$2,201,899	$1,321,456	$849,390	$1,699,030	$756,363	$1,837,934
2	Cumulative REP Program Spend	$950,000	$1,450,000	$2,326,243	$2,937,078	$3,335,317	$3,881,233	$4,297,988	$6,499,887	$7,821,343	$8,670,733	$10,369,763	$11,126,126	$12,964,060
3														
4	Book Depreciation Rate (a)	3.70%	3.72%	3.71%	3.73%	3.72%	3.33%	3.72%	2.88%	2.86%	2.86%	2.76%	2.75%	2.63%
5	FEDERAL Vintage Year Tax Depreciation:													
6	FY 2008 Spend	$429,887	$39,010	$36,081	$33,379	$30,872	$28,559	$14,858	$19,810	$24,112	$24,106	$24,112	$24,106	$24,106
7	FY 2009 Spend		$338,156	$12,139	$11,227	$10,387	$9,606	$4,999	$6,665	$8,219	$7,503	$7,501	$7,503	$7,501
8	FY 2010 Spend			$550,022	$24,467	$22,630	$20,936	$10,892	$14,522	$17,913	$16,567	$15,123	$15,120	$15,123
9	FY 2011 Spend				$481,705	$9,685	$8,958	$4,662	$6,215	$7,665	$7,090	$6,558	$5,986	$5,985
10	FY 2012 Spend					$377,329	$2,968	$1,544	$2,059	$2,539	$2,349	$2,173	$2,009	$1,834
11	FY 2013 Spend						$332,964	$11,900	$15,867	$14,676	$13,577	$12,557	$11,616	$10,744
12	CYS 2013 Spend							$212,773	$5,861	$15,043	$13,913	$12,871	$11,905	$11,013
13	CY 2014 Spend								$1,142,236	$79,478	$73,510	$68,006	$62,897	$58,185
14	CY 2015 Spend									$685,505	$47,698	$44,117	$40,813	$37,747
15	CY 2016 Spend										$440,621	$30,659	$28,357	$26,233
16	CY 2017 Spend											$881,372	$61,326	$56,722
17	CY 2018 Spend												$28,364	$54,602
18	CY 2019 Spend													$68,923
19	Annual Tax Depreciation	$429,887	$377,166	$598,242	$550,778	$450,902	$403,992	$261,627	$1,213,235	$855,149	$646,934	$1,105,049	$271,638	$378,718
20	Cumulative Tax Depreciation	$429,887	$807,053	$1,405,295	$1,956,073	$2,406,975	$2,810,967	$3,072,594	$4,285,829	$5,140,977	$5,787,911	$6,892,960	$7,164,598	$7,543,316
21														
22	STATE Vintage Year Tax Depreciation:													
23	FY 2008 Spend	$334,991	$46,127	$42,664	$39,469	$36,504	$33,770	$17,568	$23,425	$28,511	$28,504	$28,511	$28,504	$28,504
24	FY 2009 Spend		$176,311	$24,277	$22,455	$20,773	$19,213	$9,998	$13,330	$16,438	$15,006	$15,002	$15,006	$15,002
25	FY 2010 Spend			$223,801	$48,935	$45,261	$41,872	$21,784	$29,045	$35,825	$33,134	$30,246	$30,239	$30,246
26	FY 2011 Spend				$199,462	$30,854	$28,538	$14,850	$19,800	$24,417	$22,588	$20,891	$19,071	$19,066
27	FY 2012 Spend					$181,087	$19,837	$10,320	$13,761	$16,973	$15,698	$14,522	$13,431	$12,261
28	FY 2013 Spend						$179,810	$20,395	$27,193	$25,151	$23,268	$21,520	$19,908	$18,412
29	CYS 2013 Spend							$8,791	$11,721	$30,086	$27,827	$25,743	$23,809	$22,026
30	CY 2014 Spend								$82,571	$158,955	$147,021	$136,011	$125,794	$116,370
31	CY 2015 Spend									$49,555	$95,396	$88,234	$81,626	$75,495
32	CY 2016 Spend										$31,852	$61,317	$56,714	$52,467
33	CY 2017 Spend											$63,714	$122,653	$113,444
34	CY 2018 Spend												$28,364	$54,602
35	CY 2019 Spend													$68,923
36	Annual Tax Depreciation	$334,991	$222,438	$290,742	$310,320	$314,480	$323,039	$103,706	$220,846	$385,912	$440,294	$505,712	$477,817	$626,819
37	Cumulative Tax Depreciation	$334,991	$557,429	$848,171	$1,158,492	$1,472,971	$1,796,010	$1,899,716	$2,120,562	$2,506,473	$2,946,767	$3,452,479	$3,930,296	$4,557,115
38														
39	Book Depreciation	$35,150	$53,940	$86,304	$109,645	$124,074	$129,109	$119,933	$140,398	$223,690	$247,983	$286,205	$306,305	$341,565
40	Cumulative Book Depreciation	$35,150	$89,090	$175,394	$285,039	$409,113	$538,222	$658,155	$798,553	$1,022,243	$1,270,226	$1,556,431	$1,862,736	$2,204,302
41														
42	Book/Tax Timer (Federal)	$394,737	$717,963	$1,229,901	$1,671,034	$1,997,862	$2,272,745	$2,414,439	$3,487,276	$4,118,734	$4,517,685	$5,336,528	$5,301,861	$5,339,014
43	less: Deferred Tax Reserve (State)	$25,486	$39,809	$57,186	$74,243	$90,428	$106,912	$105,533	$112,371	$126,160	$142,506	$155,476	$159,202	$181,167
44	Net Book/Tax Timer (Federal)	$369,251	$678,154	$1,172,715	$1,596,791	$1,907,435	$2,165,833	$2,308,906	$3,374,905	$3,992,575	$4,375,179	$5,181,052	$5,142,659	$5,157,847
45	Effective Tax Rate (Federal)	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	34.00%	34.00%	34.00%	34.00%	34.00%	21.00%	21.00%
46	Deferred Tax Reserve (Federal)	$129,238	$237,354	$410,450	$558,877	$667,602	$758,041	$785,028	$1,147,468	$1,357,475	$1,487,561	$1,761,558	$1,079,958	$1,083,148
47	Book/Tax Timer (State)	$299,841	$468,339	$672,778	$873,453	$1,063,859	$1,257,788	$1,241,561	$1,322,009	$1,484,231	$1,676,542	$1,896,048	$2,067,559	$2,352,813
48	Effective Tax Rate (State)	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.20%	7.70%	7.70%
49	Deferred Tax Reserve (State)	$25,486	$39,809	$57,186	$74,243	$90,428	$106,912	$105,533	$112,371	$126,160	$142,506	$155,476	$159,202	$181,167
50	TOTAL Deferred Tax Reserve	$154,724	$277,163	$467,636	$633,120	$758,030	$864,953	$890,561	$1,259,839	$1,483,635	$1,630,067	$1,917,034	$1,239,161	$1,264,315
51														
52	**Rate Base Calculation**													
53	Plant In Service	$950,000	$1,450,000	$2,326,243	$2,937,078	$3,335,317	$3,881,233	$4,297,988	$6,499,887	$7,821,343	$8,670,733	$10,369,763	$11,126,126	$12,964,060
54	Accumulated Book Depreciation	($35,150)	($89,090)	($175,394)	($285,039)	($409,113)	($538,222)	($658,155)	($798,553)	($1,022,243)	($1,270,226)	($1,556,431)	($1,862,736)	($2,204,302)
55	Deferred Tax Reserve	($154,724)	($277,163)	($467,636)	($633,120)	($758,030)	($864,953)	($890,561)	($1,259,839)	($1,483,635)	($1,630,067)	($1,917,034)	($1,239,161)	($1,264,315)
56	Year End Rate Base	$760,126	$1,083,747	$1,683,213	$2,018,919	$2,168,174	$2,478,057	$2,749,272	$4,441,496	$5,315,465	$5,770,440	$6,896,298	$8,024,229	$9,495,444
57														
58	**Revenue Requirement Calculation**													
59	Year End Rate Base	$760,126	$1,083,747	$1,683,213	$2,018,919	$2,168,174	$2,478,057	$2,749,272	$4,441,496	$5,315,465	$5,770,440	$6,896,298	$8,024,229	$9,495,444
60	Pre-Tax ROR	11.91%	11.91%	11.91%	11.91%	11.91%	11.91%	11.36%	11.36%	11.36%	11.36%	8.74%	9.43%	9.43%
61	Return and Taxes	$90,515	$129,051	$200,435	$240,410	$258,183	$295,084	$312,413	$504,338	$603,837	$655,522	$603,059	$756,740	$895,485
62	Book Depreciation	$35,150	$53,940	$86,304	$109,645	$124,074	$129,109	$119,933	$140,398	$223,690	$247,983	$286,205	$306,305	$341,565
63	Property Taxes (b) 3.12%	$21,773	$27,218	$66,676	$89,904	$110,318	$118,343	$149,961	$190,995	$161,819	$232,376	$323,449	$299,207	$335,704
64	Annual Revenue Requirement	$147,438	$210,209	$353,415	$439,960	$492,575	$542,536	$582,307	$835,730	$1,015,862	$1,135,881	$1,212,714	$1,362,252	$1,572,755
65	Prior Period Change for Repairs Tax Deduct & Bonus Depreciation (FY 08 - 14) (e)					($73,471)	$2,397							
66	Adjusted Annual Revenue Requirement	$147,438	$210,209	$353,415	$439,960	$419,104	$544,933	$582,307	$835,730	$1,015,862	$1,135,881	$1,212,714	$1,362,252	$1,572,755
67	**Annual Rate Adjustment**	**7/1/2008**	**7/1/2009**	**7/1/2010**	**7/1/2011**	**7/1/2012**	**7/1/2013**	**6/1/2014**	**5/1/2015**	**6/1/2016**	**5/1/2017**	**5/1/2018**	**5/1/2019**	**5/1/2020**
68	Incremental Annual Rate Adjustment	$147,438	$62,771	$143,205	$86,545	($20,856)	$125,829	$37,374	$253,423	$180,132	$120,019	$76,833	$149,538	$210,503
69	Prior Period Correction (f)												$48,274	$0
70	Incremental Annual Rate Adjustment with Prior Period Correction												$197,812	$210,503
71														

	Imputed Capital Structure (c)	Ratio	Rate	Weighted Rate	Pre Tax
72					
73					
74	Long Term Debt	50.00%	7.54%	3.77%	3.77%
75	Common Equity	50.00%	9.67%	4.84%	8.14%
76					
77		100.00%		8.61%	11.91%
78					
79	**Imputed Capital Structure (d)**			Weighted	
80		Ratio	Rate	Rate	Pre Tax
81	Long Term Debt	45.00%	5.95%	2.68%	2.68%
82	Common Equity	55.00%	9.55%	5.25%	8.68%
83					
84		100.00%		7.93%	11.36%
85					
86	**Imputed Capital Structure (e)**			Weighted	
87		Ratio	Rate	Rate	Pre Tax
88	Long Term Debt	50.00%	5.97%	2.99%	2.99%
89	Common Equity	50.00%	9.40%	4.70%	6.45%
90					
91		100.00%		7.69%	9.43%

(a) Prior Period Actual Calendar Year Composite Depreciation rate for distribution property, reference Schedule DBS-AMH-6.
(b) Prior Period Actual Calendar Year ratio of municipal tax expense to net plant in service, reference Schedule DBS-AMH-5.
(c) Capital structure per Merger Settlement in Docket DG 06-107, Exhibit 1, Section 3(c).
(d) Capital structure per Rate Case Settlement in Docket DE 13-063, Attachment A, Schedule 1B.
(e) Capital structure per Rate Case Settlement in Docket DE 16-383, Section II A. Updated LT debt rate as of Q3 2018.
(f) Additional $48,274 due to the cost of debt rate used in Docket DG 18-034 (CY 2018) being too low

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2008 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) 2013	(g) CYS2013	(h) CY2014	(i) CY2015	(j) CY2016	(k) CY2017	(l) CY2018	(m) CY2019
1	Capital Repairs Deduction													
2	Plant Additions	$950,000												
3	Capital Repairs Deduction Rate	32.74%												
4	Capital Repairs Deduction	$311,030												
5														
6	Bonus Depreciation													
7	Plant Additions	$950,000												
8	Less Capital Repairs Deduction	$311,030												
9	Plant Additions Net of Capital Repairs Deduction	$638,970												
10														
11	Percent of Plant Additions Eligible for Bonus Depreciation April 2007 - December 2007	69.14%												
12	Plant Additions Eligible for Bonus Depreciation April 2007 - December 2007	$441,784												
13	Bonus Depreciation rate April 2007- December 2007	0%												
14	Bonus Depreciation for April 2007 - December 2007	$0												
15														
16	Plant Additions Eligible for Bonus Depreciation for January 2008 - March 2008	30.86%												
17	Plant Additions Eligible for Bonus Depreciation for January 2008 - March 2008	$197,186												
18	Bonus Depreciation rate January 2008 - March 2008	50%												
19	Bonus Depreciation for January 2008 - March 2008	$98,593												
20														
21	Bonus Depreciation	$98,593												
22														
23	Remaining Tax Depreciation (Federal)													
24	Plant Additions	$950,000												
25	Less Capital Repairs Deduction	$311,030												
26	Less Bonus Depreciation	$98,593												
27	Additions Subject to 20 YR MACRS Tax Depreciation	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377	$540,377
28	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%	3.666%	4.888%	4.462%	4.461%	4.462%	4.461%	4.461%
29	Remaining Tax Depreciation	$20,264	$39,010	$36,081	$33,379	$30,872	$28,559	$14,858	$19,810	$24,112	$24,106	$24,112	$24,106	$24,106
30														
31	Remaining Tax Depreciation (State)													
32	Plant Additions	$950,000												
33	Less Capital Repairs Deduction	$311,030												
34	Additions Subject to 20 YR MACRS Tax Depreciation	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970	$638,970
35	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%	3.666%	4.888%	4.462%	4.461%	4.462%	4.461%	4.461%
36	Remaining Tax Depreciation	$23,961	$46,127	$42,664	$39,469	$36,504	$33,770	$17,568	$23,425	$28,511	$28,504	$28,511	$28,504	$28,504
37														
38	Federal Tax Depreciation	$429,887	$39,010	$36,081	$33,379	$30,872	$28,559	$14,858	$19,810	$24,112	$24,106	$24,112	$24,106	$24,106
39	State Tax Depreciation	$334,991	$46,127	$42,664	$39,469	$36,504	$33,770	$17,568	$23,425	$28,511	$28,504	$28,511	$28,504	$28,504

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the Company's REP/VMP program have been as follows:

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2009 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2009	(b) 2010	(c) 2011	(d) 2012	(e) 2013	(f) CYS2013	(g) CY2014	(h) CY2015	(i) CY2016	(j) CY2017	(k) CY2018	(l) CY2019
1	Capital Repairs Deduction												
2	Plant Additions	$500,000											
3	Capital Repairs Deduction Rate	32.74%											
4	Capital Repairs Deduction	$163,700											
5													
6	Bonus Depreciation												
7	Plant Additions	$500,000											
8	Less Capital Repairs Deduction	$163,700											
9	Plant Additions Net of Capital Repairs Deduction	$336,300											
10													
11	Percent of Plant Additions Eligible for Bonus Depreciation	100.00%											
12	Plant Additions Eligible for Bonus Depreciation	$336,300											
13	Bonus Depreciation Rate	50%											
14	Bonus Depreciation	$168,150											
15													
16	Bonus Depreciation	$168,150											
17													
18	Remaining Tax Depreciation (Federal)												
19	Plant Additions	$500,000											
20	Less Capital Repairs Deduction	$163,700											
21	Less Bonus Depreciation	$168,150											
22	Additions Subject to 20 YR MACRS Tax Depreciation	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150	$168,150
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	3.964%	5.285%	4.888%	4.462%	4.461%	4.462%	4.461%
24	Remaining Tax Depreciation	$6,306	$12,139	$11,227	$10,387	$9,606	$4,999	$6,665	$8,219	$7,503	$7,501	$7,503	$7,501
25													
26	Remaining Tax Depreciation (State)												
27	Plant Additions	$500,000											
28	Less Capital Repairs Deduction	$163,700											
29	Additions Subject to 20 YR MACRS Tax Depreciation	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300	$336,300
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	3.964%	5.285%	4.888%	4.462%	4.461%	4.462%	4.461%
31	Remaining Tax Depreciation	$12,611	$24,277	$22,455	$20,773	$19,213	$9,998	$13,330	$16,438	$15,006	$15,002	$15,006	$15,002
32													
33	Federal Tax Depreciation	$338,156	$12,139	$11,227	$10,387	$9,606	$4,999	$6,665	$8,219	$7,503	$7,501	$7,503	$7,501
34	State Tax Depreciation	$176,311	$24,277	$22,455	$20,773	$19,213	$9,998	$13,330	$16,438	$15,006	$15,002	$15,006	$15,002

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the Company's REP/VMP program have been as follows:

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2010 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2010	(b) 2011	(c) 2012	(d) 2013	(e) CYS2013	(f) CY2014	(g) CY2015	(h) CY2016	(i) CY2017	(j) CY2018	(k) CY2019
1	Capital Repairs Deduction											
2	Plant Additions	$876,243										
3	Capital Repairs Deduction Rate	22.64%										
4	Capital Repairs Deduction	$198,381										
5												
6	Bonus Depreciation											
7	Plant Additions	$876,243										
8	Less Capital Repairs Deduction	$198,381										
9	Plant Additions Net of Capital Repairs Deduction	$677,862										
10												
11	Percent of Plant Additions Eligible for Bonus Depreciation	100.00%										
12	Plant Additions Eligible for Bonus Depreciation	$677,862										
13	Bonus Depreciation Rate	50%										
14	Bonus Depreciation	$338,931										
15												
16	Bonus Depreciation	$338,931										
17												
18	Remaining Tax Depreciation (Federal)											
19	Plant Additions	$876,243										
20	Less Capital Repairs Deduction	$198,381										
21	Less Bonus Depreciation	$338,931										
22	Additions Subject to 20 YR MACRS Tax Depreciation	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931	$338,931
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	4.285%	5.713%	5.285%	4.888%	4.462%	4.461%	4.462%
24	Remaining Tax Depreciation	$12,710	$24,467	$22,630	$20,936	$10,892	$14,522	$17,913	$16,567	$15,123	$15,120	$15,123
25												
26	Remaining Tax Depreciation (State)											
27	Plant Additions	$876,243										
28	Less Capital Repairs Deduction	$198,381										
29	Additions Subject to 20 YR MACRS Tax Depreciation	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862	$677,862
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	4.285%	5.713%	5.285%	4.888%	4.462%	4.461%	4.462%
31	Remaining Tax Depreciation	$25,420	$48,935	$45,261	$41,872	$21,784	$29,045	$35,825	$33,134	$30,246	$30,239	$30,246
32												
33	Federal Tax Depreciation	$550,022	$24,467	$22,630	$20,936	$10,892	$14,522	$17,913	$16,567	$15,123	$15,120	$15,123
34	State Tax Depreciation	$223,801	$48,935	$45,261	$41,872	$21,784	$29,045	$35,825	$33,134	$30,246	$30,239	$30,246

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the Company's

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2010	100%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2011 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2011	(b) 2012	(c) 2013	(d) CYS2013	(e) CY2014	(f) CY2015	(g) CY2016	(h) CY2017	(i) CY2018	(j) CY2019
1	Capital Repairs Deduction										
2	Plant Additions	$610,835									
3	Capital Repairs Deduction Rate	30.03%									
4	Capital Repairs Deduction	$183,434									
5											
6	Bonus Depreciation										
7	Plant Additions	$610,835									
8	Less Capital Repairs Deduction	$183,434									
9	Plant Additions Net of Capital Repairs Deduction	$427,401									
10											
11	Percent of Plant Additions Eligible for Bonus Depreciation April 2010 - September 2010	62.78%									
12	Plant Additions Eligible for Bonus Depreciation April 2010 - September 2010	$268,322									
13	Bonus Depreciation rate April 2010- September 2010	50%									
14	Bonus Depreciation for April 2010 - September 2010	$134,161									
15											
16	Plant Additions Eligible for Bonus Depreciation for October 2010 - March 2011	37.22%									
17	Plant Additions Eligible for Bonus Depreciation for October 2010 - March 2011	$159,079									
18	Bonus Depreciation rate October 2010 - March 201	100%									
19	Bonus Depreciation for October 2010 - March 2011	$159,079									
20											
21	Bonus Depreciation	$293,240									
22											
23	Remaining Tax Depreciation (Federal)										
24	Plant Additions	$610,835									
25	Less Capital Repairs Deduction	$183,434									
26	Less Bonus Depreciation	$293,240									
27	Additions Subject to 20 YR MACRS Tax Depreciation	$134,161	$134,161	$134,161	$134,161	$134,161	$134,161	$134,161	$134,161	$134,161	$134,161
28	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	4.633%	6.177%	5.713%	5.285%	4.888%	4.462%	4.461%
29	Remaining Tax Depreciation	$5,031	$9,685	$8,958	$4,662	$6,215	$7,665	$7,090	$6,558	$5,986	$5,985
30											
31	Remaining Tax Depreciation (State)										
32	Plant Additions	$610,835									
33	Less Capital Repairs Deduction	$183,434									
34	Additions Subject to 20 YR MACRS Tax Depreciation	$427,401	$427,401	$427,401	$427,401	$427,401	$427,401	$427,401	$427,401	$427,401	$427,401
35	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	4.633%	6.177%	5.713%	5.285%	4.888%	4.462%	4.461%
36	Remaining Tax Depreciation	$16,028	$30,854	$28,538	$14,850	$19,800	$24,417	$22,588	$20,891	$19,071	$19,066
37											
38	Federal Tax Depreciation	$481,705	$9,685	$8,958	$4,662	$6,215	$7,665	$7,090	$6,558	$5,986	$5,985
39	State Tax Depreciation	$199,462	$30,854	$28,538	$14,850	$19,800	$24,417	$22,588	$20,891	$19,071	$19,066

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the Company's REP/VMP program have been as follows:

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2012 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2012	(b) 2013	(c) CYS2013	(d) CY2014	(e) CY2015	(f) CY2016	(g) CY2017	(h) CY2018	(i) CY2019
1	Capital Repairs Deduction									
2	Plant Additions	$398,239								
3	Capital Repairs Deduction Rate	31.00%								
4	Capital Repairs Deduction	$123,454								
5										
6	Bonus Depreciation									
7	Plant Additions	$398,239								
8	Less Capital Repairs Deduction	$123,454								
9	Plant Additions Net of Capital Repairs Deduction	$274,785								
10										
11	Percent of Plant Additions Eligible for Bonus Depreciation April 2011 - December, 2011	72.52%								
12	Plant Additions Eligible for Bonus Depreciation April 2011 - December, 2011	$199,274								
13	Bonus Depreciation rate April 2011- December 2011	100%								
14	Bonus Depreciation for April 2011 - December 2011	$199,274								
15										
16	Plant Additions Eligible for Bonus Depreciation for January 2012 - March 2012	25.04%								
17	Plant Additions Eligible for Bonus Depreciation for January 2012 - March 2012	$68,806								
18	Bonus Depreciation rate January 2012 - March 2012	50%								
19	Bonus Depreciation for January 2012 - March 2012	$34,403								
20										
21	Bonus Depreciation	$233,677								
22										
23	Remaining Tax Depreciation (Federal)									
24	Plant Additions	$398,239								
25	Less Capital Repairs Deduction	$123,454								
26	Less Bonus Depreciation	$233,677								
27	Additions Subject to 20 YR MACRS Tax Depreciation	$41,108	$41,108	$41,108	$41,108	$41,108	$41,108	$41,108	$41,108	$41,108
28	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	5.008%	6.677%	6.177%	5.713%	5.285%	4.888%	4.462%
29	Remaining Tax Depreciation	$1,542	$2,968	$1,544	$2,059	$2,539	$2,349	$2,173	$2,009	$1,834
30										
31	Remaining Tax Depreciation (State)									
32	Plant Additions	$398,239								
33	Less Capital Repairs Deduction	$123,454								
34	Additions Subject to 20 YR MACRS Tax Depreciation	$274,785	$274,785	$274,785	$274,785	$274,785	$274,785	$274,785	$274,785	$274,785
35	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	5.008%	6.677%	6.177%	5.713%	5.285%	4.888%	4.462%
36	Remaining Tax Depreciation	$10,304	$19,837	$10,320	$13,761	$16,973	$15,698	$14,522	$13,431	$12,261
37										
38	Federal Tax Depreciation	$358,673	$2,968	$1,544	$2,059	$2,539	$2,349	$2,173	$2,009	$1,834
39	State Tax Depreciation	$133,758	$19,837	$10,320	$13,761	$16,973	$15,698	$14,522	$13,431	$12,261
40										
41										
42	FY 2012 Safe Harbor True Up (Federal)	$18,656								
43	FY 2012 Tax Depreciation (Federal)	$377,329								
44	FY 2012 Safe Harbor True Up (State)	$47,329								
45	FY 2012 Tax Depreciation (State)	$181,087								

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the Company's REP/VMP program have

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2013 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) 2013	(b) CYS2013	(c) CY2014	(d) CY2015	(e) CY2016	(f) CY2017	(g) CY2018	(h) CY2019
1	Capital Repairs Deduction								
2	Plant Additions	$545,916							
3	Capital Repairs Deduction Rate	31.00%							
4	Capital Repairs Deduction	$169,234							
5									
6	Bonus Depreciation								
7	Plant Additions	$545,916							
8	Less Capital Repairs Deduction	$169,234							
9	Plant Additions Net of Capital Repairs Deduction	$376,682							
10									
11	Percent of Plant Additions Eligible for Bonus Depreciation April 2012 - December, 2012	62.48%							
12	Plant Additions Eligible for Bonus Depreciation April 2012 - December, 2012	$235,332							
13	Bonus Depreciation rate April 2012- December 2012	50%							
14	Bonus Depreciation for April 2012 - December 2012	$117,666							
15									
16	Plant Additions Eligible for Bonus Depreciation for January 2013 - March 2013	20.83%							
17	Plant Additions Eligible for Bonus Depreciation for January 2013 - March 2013	$78,444							
18	Bonus Depreciation rate January 2013 - March 2013	50%							
19	Bonus Depreciation for January 2013 - March 2013	$39,222							
20									
21	Bonus Depreciation	$156,888							
22									
23	Remaining Tax Depreciation (Federal)								
24	Plant Additions	$545,916							
25	Less Capital Repairs Deduction	$169,234							
26	Less Bonus Depreciation	$156,888							
27	Additions Subject to 20 YR MACRS Tax Depreciation	$219,794	$219,794	$219,794	$219,794	$219,794	$219,794	$219,794	$219,794
28	20 YR MACRS Tax Depreciation Rates	3.750%	5.414%	7.219%	6.677%	6.177%	5.713%	5.285%	4.888%
29	Remaining Tax Depreciation	$8,242	$11,900	$15,867	$14,676	$13,577	$12,557	$11,616	$10,744
30									
31	Remaining Tax Depreciation (State)								
32	Plant Additions	$545,916							
33	Less Capital Repairs Deduction	$169,234							
34	Additions Subject to 20 YR MACRS Tax Depreciation	$376,682	$376,682	$376,682	$376,682	$376,682	$376,682	$376,682	$376,682
35	20 YR MACRS Tax Depreciation Rates	3.750%	5.414%	7.219%	6.677%	6.177%	5.713%	5.285%	4.888%
36	Remaining Tax Depreciation	$14,126	$20,395	$27,193	$25,151	$23,268	$21,520	$19,908	$18,412
37									
38	Federal Tax Depreciation	$334,364	$11,900	$15,867	$14,676	$13,577	$12,557	$11,616	$10,744
39	State Tax Depreciation	$183,360	$20,395	$27,193	$25,151	$23,268	$21,520	$19,908	$18,412
40									
41									
42	Effect of FY 2012 Safe Harbor True Up on FY 2013 Tax Depreciation (Federal)	($1,400)							
43	FY 2013 Tax Depreciation (Federal)	$332,964							
44	Effect of FY 2012 Safe Harbor True Up on FY 2013 Tax Depreciation (State)	($3,550)							
45	FY 2013 Tax Depreciation (State)	$179,810							

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2013 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CYS2013	(b) CY2014	(c) CY2015	(d) CY2016	(e) CY2017	(f) CY2018	(g) CY2019
1	Capital Repairs Deduction							
2	Plant Additions	$416,755						
3	Capital Repairs Deduction Rate	0.00%						
4	Capital Repairs Deduction	$0						
5								
6	Bonus Depreciation							
7	Plant Additions	$416,755						
8	Less Capital Repairs Deduction	$0						
9	Plant Additions Net of Capital Repairs Deduction	$416,755						
10								
11	Plant Additions Eligible for Bonus Depreciation for April 2013 - December 2013	100.00%						
12	Plant Additions Eligible for Bonus Depreciation for April 2013 - December 2013	$416,755						
13	Bonus Depreciation rate April 2013 - December 2013	50%						
14	Bonus Depreciation for April 2013 - December 2013	$208,378						
15								
16	Bonus Depreciation	$208,378						
17								
18	Remaining Tax Depreciation (Federal)							
19	Plant Additions	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755
20	Less Capital Repairs Deduction	$0	$0	$0	$0	$0	$0	$0
21	Less Bonus Depreciation	$208,378	$208,378	$208,378	$208,378	$208,378	$208,378	$208,378
22	Additions Subject to 20 YR MACRS Tax Depreciation	$208,378	$208,378	$208,378	$208,378	$208,378	$208,378	$208,378
23	20 YR MACRS Tax Depreciation Rates	2.813%	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
24	Remaining Tax Depreciation	$4,395	$5,861	$15,043	$13,913	$12,871	$11,905	$11,013
25								
26	Remaining Tax Depreciation (State)							
27	Plant Additions	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755
28	Less Capital Repairs Deduction	$0	$0	$0	$0	$0	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755	$416,755
30	20 YR MACRS Tax Depreciation Rates	2.813%	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
31	Remaining Tax Depreciation	$8,791	$11,721	$30,086	$27,827	$25,743	$23,809	$22,026
32								
33	Federal Tax Depreciation	$212,773	$5,861	$15,043	$13,913	$12,871	$11,905	$11,013
34	State Tax Depreciation	$8,791	$11,721	$30,086	$27,827	$25,743	$23,809	$22,026

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods

Period	Rate
April 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2014 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2014	(b) CY 2015	(c) CY 2016	(d) CY 2017	(e) CY 2018	(f) CY 2019
1	Capital Repairs Deduction						
2	Plant Additions	$2,201,899					
3	Capital Repairs Deduction Rate	0.00%					
4	Capital Repairs Deduction	$0					
5							
6	Bonus Depreciation						
7	Plant Additions	$2,201,899					
8	Less Capital Repairs Deduction	$0					
9	Plant Additions Net of Capital Repairs Deduction	$2,201,899					
10							
11	Plant Additions Eligible for Bonus Depreciation	100.00%					
12	Plant Additions Eligible for Bonus Depreciation	$2,201,899					
13	Bonus Depreciation rate	50%					
14	Bonus Depreciation rate	$1,100,950					
15							
16	Bonus Depreciation	$1,100,950					
17							
18	Remaining Tax Depreciation (Federal)						
19	Plant Additions	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899
20	Less Capital Repairs Deduction	$0	$0	$0	$0	$0	$0
21	Less Bonus Depreciation	$1,100,950	$1,100,950	$1,100,950	$1,100,950	$1,100,950	$1,100,950
22	Additions Subject to 20 YR MACRS Tax Depreciation	$1,100,950	$1,100,950	$1,100,950	$1,100,950	$1,100,950	$1,100,950
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
24	Remaining Tax Depreciation	$41,286	$79,478	$73,510	$68,006	$62,897	$58,185
25							
26	Remaining Tax Depreciation (State)						
27	Plant Additions	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899
28	Less Capital Repairs Deduction	$0	$0	$0	$0	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899	$2,201,899
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%
31	Remaining Tax Depreciation	$82,571	$158,955	$147,021	$136,011	$125,794	$116,370
32							
33	Federal Tax Depreciation	$1,142,236	$79,478	$73,510	$68,006	$62,897	$58,185
34	State Tax Depreciation	$82,571	$158,955	$147,021	$136,011	$125,794	$116,370

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2015 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2015	(b) CY 2016	(c) CY 2017	(d) CY 2018	(e) CY 2019
1	Capital Repairs Deduction					
2	Plant Additions	$1,321,456				
3	Capital Repairs Deduction Rate	0.00%				
4	Capital Repairs Deduction	$0				
5						
6	Bonus Depreciation					
7	Plant Additions	$1,321,456				
8	Less Capital Repairs Deduction	$0				
9	Plant Additions Net of Capital Repairs Deduction	$1,321,456				
10						
11	Plant Additions Eligible for Bonus Depreciation	100.00%				
12	Plant Additions Eligible for Bonus Depreciation	$1,321,456				
13	Bonus Depreciation rate	50%				
14	Bonus Depreciation rate	$660,728				
15						
16	Bonus Depreciation	$660,728				
17						
18	Remaining Tax Depreciation (Federal)					
19	Plant Additions	$1,321,456	$1,321,456	$1,321,456	$1,321,456	$1,321,456
20	Less Capital Repairs Deduction	$0	$0	$0	$0	$0
21	Less Bonus Depreciation	$660,728	$660,728	$660,728	$660,728	$660,728
22	Additions Subject to 20 YR MACRS Tax Depreciation	$660,728	$660,728	$660,728	$660,728	$660,728
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%
24	Remaining Tax Depreciation	$24,777	$47,698	$44,117	$40,813	$37,747
25						
26	Remaining Tax Depreciation (State)					
27	Plant Additions	$1,321,456	$1,321,456	$1,321,456	$1,321,456	$1,321,456
28	Less Capital Repairs Deduction	$0	$0	$0	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$1,321,456	$1,321,456	$1,321,456	$1,321,456	$1,321,456
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%	5.713%
31	Remaining Tax Depreciation	$49,555	$95,396	$88,234	$81,626	$75,495
32						
33	Federal Tax Depreciation	$685,505	$47,698	$44,117	$40,813	$37,747
34	State Tax Depreciation	$49,555	$95,396	$88,234	$81,626	$75,495

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%
January 1, 2015 to December 31, 2015	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2016 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2016	(b) CY 2017	(c) CY 2018	(d) CY 2019
1	Capital Repairs Deduction				
2	Plant Additions	$849,390			
3	Capital Repairs Deduction Rate	0.00%			
4	Capital Repairs Deduction	$0			
5					
6	Bonus Depreciation				
7	Plant Additions	$849,390			
8	Less Capital Repairs Deduction	$0			
9	Plant Additions Net of Capital Repairs Deduction	$849,390			
10					
11	Plant Additions Eligible for Bonus Depreciation	100.00%			
12	Plant Additions Eligible for Bonus Depreciation	$849,390			
13	Bonus Depreciation rate	50%			
14	Bonus Depreciation rate	$424,695			
15					
16	Bonus Depreciation	$424,695			
17					
18	Remaining Tax Depreciation (Federal)				
19	Plant Additions	$849,390	$849,390	$849,390	$849,390
20	Less Capital Repairs Deduction	$0	$0	$0	$0
21	Less Bonus Depreciation	$424,695	$424,695	$424,695	$424,695
22	Additions Subject to 20 YR MACRS Tax Depreciation	$424,695	$424,695	$424,695	$424,695
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%
24	Remaining Tax Depreciation	$15,926	$30,659	$28,357	$26,233
25					
26	Remaining Tax Depreciation (State)				
27	Plant Additions	$849,390	$849,390	$849,390	$849,390
28	Less Capital Repairs Deduction	$0	$0	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$849,390	$849,390	$849,390	$849,390
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%
31	Remaining Tax Depreciation	$31,852	$61,317	$56,714	$52,467
32					
33	Federal Tax Depreciation	$440,621	$30,659	$28,357	$26,233
34	State Tax Depreciation	$31,852	$61,317	$56,714	$52,467

Note: Plant additions not subject to the capital repairs deduction may be subject to bonus depreciation. During 2008, Congress passed the Economic Stimulus Act of 2008 which established a 50% bonus depreciation deduction for certain eligible plant additions. Congress has passed further laws which have extended and changed the bonus depreciation rate at different periods of time. The bonus depreciation rates in effect since the start of the

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%
January 1, 2015 to December 31, 2015	50%
January 1, 2016 to December 31, 2016	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-1

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2017 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2017	(b) CY 2018	(c) CY 2019
1	Capital Repairs Deduction			
2	Plant Additions	$1,699,030		
3	Capital Repairs Deduction Rate	0.00%		
4	Capital Repairs Deduction	$0		
5				
6	Bonus Depreciation			
7	Plant Additions	$1,699,030		
8	Less Capital Repairs Deduction	$0		
9	Plant Additions Net of Capital Repairs Deduction	$1,699,030		
10				
11	Plant Additions Eligible for Bonus Depreciation	100.00%		
12	Plant Additions Eligible for Bonus Depreciation	$1,699,030		
13	Bonus Depreciation rate	50%		
14	Bonus Depreciation rate	$849,515		
15				
16	Bonus Depreciation	$849,515		
17				
18	Remaining Tax Depreciation (Federal)			
19	Plant Additions	$1,699,030	$1,699,030	$1,699,030
20	Less Capital Repairs Deduction	$0	$0	$0
21	Less Bonus Depreciation	$849,515	$849,515	$849,515
22	Additions Subject to 20 YR MACRS Tax Depreciation	$849,515	$849,515	$849,515
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%
24	Remaining Tax Depreciation	$31,857	$61,326	$56,722
25				
26	Remaining Tax Depreciation (State)			
27	Plant Additions	$1,699,030	$1,699,030	$1,699,030
28	Less Capital Repairs Deduction	$0	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$1,699,030	$1,699,030	$1,699,030
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%
31	Remaining Tax Depreciation	$63,714	$122,653	$113,444
32				
33	Federal Tax Depreciation	$881,372	$61,326	$56,722
34	State Tax Depreciation	$63,714	$122,653	$113,444

Note: Plant additions not subject to the capital repairs deduction may be

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%
January 1, 2015 to December 31, 2015	50%
January 1, 2016 to December 31, 2016	50%
January 1, 2017 to December 31, 2017	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-1

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2018 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2018	(b) CY 2019
1	Capital Repairs Deduction		
2	Plant Additions	$756,363	
3	Capital Repairs Deduction Rate	0.00%	
4	Capital Repairs Deduction	$0	
5			
6	Bonus Depreciation		
7	Plant Additions	$756,363	
8	Less Capital Repairs Deduction	$0	
9	Plant Additions Net of Capital Repairs Deduction	$756,363	
10			
11	Plant Additions Eligible for Bonus Depreciation	100.00%	
12	Plant Additions Eligible for Bonus Depreciation	$756,363	
13	Bonus Depreciation rate	0%	
14	Bonus Depreciation rate	$0	
15			
16	Bonus Depreciation	$0	
17			
18	Remaining Tax Depreciation (Federal)		
19	Plant Additions	$756,363	$756,363
20	Less Capital Repairs Deduction	$0	$0
21	Less Bonus Depreciation	$0	$0
22	Additions Subject to 20 YR MACRS Tax Depreciation	$756,363	$756,363
23	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%
24	Remaining Tax Depreciation	$28,364	$54,602
25			
26	Remaining Tax Depreciation (State)		
27	Plant Additions	$756,363	$756,363
28	Less Capital Repairs Deduction	$0	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$756,363	$756,363
30	20 YR MACRS Tax Depreciation Rates	3.750%	7.219%
31	Remaining Tax Depreciation	$28,364	$54,602
32			
33	Federal Tax Depreciation	$28,364	$54,602
34	State Tax Depreciation	$28,364	$54,602

Note: Plant additions not subject to the capital repairs deduction may be

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%
January 1, 2015 to December 31, 2015	50%
January 1, 2016 to December 31, 2016	50%
January 1, 2017 to December 31, 2017	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-1
Page 16 of 16

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2019 - Per Tax Return
Using Capital Repairs Tax Return Rate

		(a) CY 2019
1	Capital Repairs Deduction	
2	Plant Additions	$1,837,934
3	Capital Repairs Deduction Rate	0.00%
4	Capital Repairs Deduction	$0
5		
6	Bonus Depreciation	
7	Plant Additions	$1,837,934
8	Less Capital Repairs Deduction	$0
9	Plant Additions Net of Capital Repairs Deduction	$1,837,934
10		
11	Plant Additions Eligible for Bonus Depreciation	100.00%
12	Plant Additions Eligible for Bonus Depreciation	$1,837,934
13	Bonus Depreciation rate	0%
14	Bonus Depreciation rate	$0
15		
16	Bonus Depreciation	$0
17		
18	Remaining Tax Depreciation (Federal)	
19	Plant Additions	$1,837,934
20	Less Capital Repairs Deduction	$0
21	Less Bonus Depreciation	$0
22	Additions Subject to 20 YR MACRS Tax Depreciation	$1,837,934
23	20 YR MACRS Tax Depreciation Rates	3.750%
24	Remaining Tax Depreciation	$68,923
25		
26	Remaining Tax Depreciation (State)	
27	Plant Additions	$1,837,934
28	Less Capital Repairs Deduction	$0
29	Additions Subject to 20 YR MACRS Tax Depreciation	$1,837,934
30	20 YR MACRS Tax Depreciation Rates	3.750%
31	Remaining Tax Depreciation	$68,923
32		
33	Federal Tax Depreciation	$68,923
34	State Tax Depreciation	$68,923

Note: Plant additions not subject to the capital repairs deduction may be

Period	Rate
January 1, 2007 to December 31, 2007	0%
January 1, 2008 to September 7, 2010	50%
September 8, 2010 to December 31, 2011	100%
January 1, 2012 to December 31, 2013	50%
January 1, 2014 to December 31, 2014	50%
January 1, 2015 to December 31, 2015	50%
January 1, 2016 to December 31, 2016	50%
January 1, 2017 to December 31, 2017	50%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-2
Page 1 of 4

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Procedure for Adjusting Distribution Rates for Capital Investment Allowance
Calculation of Percentage Adjustment to Distribution Rates
Based on Rates Effective July 1, 2019

Rate Class	Distribution Rate Component		Current Base Distribution Rates (a)	Forecasted Units (b)		Forecasted Revenues (c)
D	Customer Charge	$	14.67	424,580	$	6,228,589
	1st 250 kWh	$	0.04898	93,096,123	$	4,559,848
	Excess 250 kWh	$	0.04898	172,328,192	$	8,440,635
	Off Peak kWh	$	0.04229	1,473,801	$	62,327
	Farm kWh	$	0.04623	1,003,095	$	46,373
	D-6 kWh	$	0.04308	800,855	$	34,501
D-10	Customer Charge	$	14.67	5,277	$	928,963
	On Peak kWh	$	0.10528	1,831,948	$	192,868
	Off Peak kWh	$	0.00145	3,434,988	$	4,981
G-1	Customer Charge	$	382.48	1,658	$	634,152
	Demand Charge	$	8.14	981,764	$	7,991,559
	On Peak kWh	$	0.00523	173,776,797	$	908,853
	Off Peak kWh	$	0.00156	215,597,942	$	336,333
	Credit for High Voltage Delivery > 2.4 kv		(0.44)	354,650	$	(119,955)
G-2	Customer Charge	$	63.77	10,882	$	693,945
	Demand Charge	$	8.19	522,041	$	4,275,516
	All kWh	$	0.00205	144,526,523	$	296,279
	Credit for High Voltage Delivery > 2.4 kv	$	(0.44)	1,121		
G-3	Customer Charge	$	14.67	68,040	$	998,147
	All kWh	$	0.04651	87,177,837	$	4,054,641
	Minimum Charge > 25 kVA	$	2.60			
M	Luminaire Charge				$	998,836
	All kWh	$	-	4,093,528	$	-
T	Customer Charge	$	14.67	11,565	$	169,659
	All kWh	$	0.04047	13,306,074	$	538,497
V	Minimum Charge	$	14.67	211	$	3,095
	All kWh	$	0.04782	326,060	$	15,592
			Total Forecasted Revenues		$	42,294,232

(a) Distribution Rates Effective July 1, 2019

(b) Company forecast provided by consulting company Business Economic Analysis Research (BEAR)

(c) Column (a) x column (b)
Luminaire forecasted revenues determined by attachmentment 5 of Settlement Agreement in Docket DE 16-383 line 32 on Bates 33

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
REP/VMP Rate Design
Procedure for Adjusting Distribution Rates for Capital Investment Allowance
Calculation of Percentage Adjustment to Distribution Rates
Rates Effective May 1, 2020

(1)	Increase in Annual Revenue Requirement	$210,503
(2)	Forecasted Base Distribution Revenues	$42,294,232
(3)	Percentage of Adjustment to Distribution Rates	0.50%

(1) DBS-AMH-1 Page 3 Line 70
(2) Forecasted Base Distribution Revenues for the period of May 1, 2020 - April 30, 2021
(3) Line (1) ÷ Line (2)

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Calculation of Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor
Rates Effective May 1, 2020

(1)	CY 2019 O&M Expense Above Base O&M Expense	$101,147
(2)	Final Balance of Reconciliation of CY 2018 Incremental O&M Expense Above Base O&M Expense	($26,163)
(3)	Reliability Enhancement Program and Vegetation Management Plan Expense	$74,984
(4)	Estimated kWh deliveries May 1, 2020 - April 30, 2021	912,773,764
(5)	Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor	$0.00008

(1) Schedule DBS-AMH-1, Page 2, Line 7
(2) Schedule DBS-AMH-3, Page 1, Line 15
(3) Line (1) + Line (2)
(4) Per Company forecast
(5) Line (3) ÷ Line (4), truncated after 5 decimal places

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Revised Schedule DBS-AMH-2
Page 4 of 4

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
REP/VMP Rate Design
Procedure for Adjusting Distribution Rates for Capital Investment Allowance & Incremental O&M Expense
Rates Effective May 1, 2020

Rate Class	Distribution Rate Component	Current Rates (a)	Proposed May 1, 2020 Distribution % Increase/ % (Decrease) (b)	Proposed May 1, 2020 Base Distribution Charges (c)	Proposed May 1, 2020 REP/VMP O&M Adjustment Factor (d)	Proposed May 1, 2020 Total Distribution Charges (e)
D	Customer Charge	$14.67	0.50%	$14.74		$14.74
	All kWh	$0.04898	0.50%	$0.04922	$0.00008	$0.04930
	16 Hour Off Peak kWh	$0.04229	0.50%	$0.04250	$0.00008	$0.04258
	Farm kWh	$0.04623	0.50%	$0.04646	$0.00008	$0.04654
	D-6 kWh	$0.04308	0.50%	$0.04329	$0.00008	$0.04337
D-10	Customer Charge	$14.67	0.50%	$14.74		$14.74000
	On Peak kWh	$0.10528	0.50%	$0.10580	$0.00008	$0.10588
	Off Peak kWh	$0.00145	0.50%	$0.00145	$0.00008	$0.00153
G-1	Customer Charge	$382.48	0.50%	$384.39		$384.39
	Demand Charge	$8.14	0.50%	$8.18		$8.18
	On Peak kWh	$0.00523	0.50%	$0.00525	$0.00008	$0.00533
	Off Peak kWh	$0.00156	0.50%	$0.00156	$0.00008	$0.00164
	Credit for High Voltage Delivery > 2.4 k	($0.44)	0.50%	($0.44)		($0.44)
G-2	Customer Charge	$63.77	0.50%	$64.08		$64.08
	Demand Charge	$8.19	0.50%	$8.23		$8.23
	All kWh	$0.00205	0.50%	$0.00206	$0.00008	$0.00214
	Credit for High Voltage Delivery > 2.4 k	($0.44)	0.50%	($0.44)		($0.44)
G-3	Customer Charge	$14.67	0.50%	$14.74		$14.74
	All kWh	$0.04651	0.50%	$0.04674	$0.00008	$0.04682
	Minimum Charge > 25 kVA	$2.60	0.50%	$2.61		$2.61
M	Luminaire Charge					
	Description					
	HPS 4,000	$7.69	0.50%	$7.72		$7.72
	HPS 9,600	$9.35	0.50%	$9.39		$9.39
	HPS 27,500	$16.43	0.50%	$16.51		$16.51
	HPS 50,000	$21.41	0.50%	$21.51		$21.51
	HPS 9,600 (Post Top)	$10.77	0.50%	$10.82		$10.82
	HPS 27,500 Flood	$16.57	0.50%	$16.65		$16.65
	HPS 50,000 Flood	$22.88	0.50%	$22.99		$22.99
	Incandescent 1,000	$10.29	0.50%	$10.34		$10.34
	Mercury Vapor 4,000	$7.43	0.50%	$7.46		$7.46
	Mercury Vapor 8,000	$9.06	0.50%	$9.10		$9.10
	Mercury Vapor 22,000	$17.14	0.50%	$17.22		$17.22
	Mercury Vapor 63,000	$32.54	0.50%	$32.70		$32.70
	Mercury Vapor 22,000 Flood	$18.96	0.50%	$19.05		$19.05
	Mercury Vapor 63,000 Flood	$32.75	0.50%	$32.91		$32.91
	LED Fixtures					
	30 Watt Pole Top	$11.38	0.50%	$11.43		$11.43
	50 Watt Pole Top	$11.85	0.50%	$11.90		$11.90
	130 Watt Pole Top	$13.69	0.50%	$13.75		$13.75
	190 Watt Pole Top	$18.02	0.50%	$18.11		$18.11
	50 Watt URD	$13.02	0.50%	$13.08		$13.08
	90 Watt Flood	$13.12	0.50%	$13.18		$13.18
	130 Watt Flood	$14.37	0.50%	$14.44		$14.44
	50 Watt Barn	$5.00	0.50%	$5.02		$5.02
	Pole and Accessory Charge					
	Description					
	Pole -Wood	$9.09	0.50%	$9.14		$9.14
	Fiberglass - Direct Embedded	$9.41	0.50%	$9.46		$9.46
	Fiberglass w/Foundation <25 ft	$15.98	0.50%	$16.06		$16.06
	Fiberglass w/Foundation >=25 ft	$26.69	0.50%	$26.82		$26.82
	Metal Poles - Direct Embedded	$19.04	0.50%	$19.14		$19.14
	Metal Poles with Foundation	$22.97	0.50%	$23.08		$23.08
	All kWh	$0.00000	0.50%	$0.00000	$0.00008	$0.00008
T	Customer Charge	$14.67	0.50%	$14.74		$14.74
	All kWh	$0.04047	0.50%	$0.04067	$0.00008	$0.04075
V	Minimum Charge	$14.67	0.50%	$14.74		$14.74
	All kWh	$0.04782	0.50%	$0.04805	$0.00008	$0.04813

(a) Distribution Rates Effective July 1, 2019
(b) Schedule DBS-2, Page 2, Line 3
(c) Column (a) x (1+Column (b))
(d) Schedule DBS-2, Page 3, Line 5
(e) Column (c) + Column (d)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-3
Page 1 of 1

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Reconciliation of CY 2018 O&M Expense

			Beginning Balance With Interest (a)	Revenue (b)	Ending Balance (c)	Balance Subject to Interest (d)	Effective Interest Rate (e)	Interest (f)	Cumulative Interest (g)
	1	May-19	$432,479	$38,146	$394,333	$413,406	5.50%	$1,849	$1,849
	2	June-19	$396,181	$36,593	$359,588	$377,885	5.50%	$1,690	$3,538
	3	July-19	$361,278	$44,910	$316,368	$338,823	5.50%	$1,515	$5,054
	4	August-19	$317,883	$47,472	$270,411	$294,147	5.25%	$1,257	$6,310
	5	September-19	$271,668	$39,430	$232,238	$251,953	5.25%	$1,077	$7,387
	6	October-19	$233,314	$34,582	$198,732	$216,023	5.00%	$880	$8,267
	7	November-19	$199,612	$34,015	$165,597	$182,605	4.75%	$708	$8,975
	8	December-19	$166,305	$39,473	$126,832	$146,569	4.75%	$568	$9,543
	9	January-20	$127,400	$41,988	$85,412	$106,406	4.75%	$412	$9,955
	10	February-20	$85,824	$37,799	$48,025	$66,925	4.75%	$259	$10,214
*	11	March-20	$48,284	$38,398	$9,886	$29,085	4.75%	$113	$10,327
*	12	April-20	$9,999	$36,131	($26,132)	($8,067)	4.75%	($31)	$10,296
	13		(Over)/Under Recovery:		($26,163)				

(a) Line 1: Schedule DBS-2, Page 3, Line 3 in Docket DE 19-051
(a) Lines 2 - 12: Prior month Column (c) + Prior month Column (f)
(b) Revenues per the Company's Records
(c) Column (a) - Column (b)
(d) Average of Column (a) and Column (c)
(e) Interest rate on customer deposits
(f) Column (d) x [(1 + Column (e)) ^ (1 ÷ 12) - 1]
(g) Prior month Column (g) + Current month Column (f)
* Estimate

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-4
Page 1 of 1

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Bill Calculation

Usage 650 kWh

	Current Rates (a)	May 1, 2020 Proposed Rates (b)	Current Bill	May 1, 2020 Proposed Bill
Customer Charge	$14.67	$14.74	$14.67	$14.74
Distribution Charge				
All kWh	$0.04950	$0.04930	$32.18	$32.05
Storm Recovery Adjustment	$0.00000	$0.00000	$0.00	$0.00
Transmission Charge	$0.02732	$0.02732	$17.76	$17.76
Stranded Cost Charge	($0.00106)	-$0.00106	-$0.69	-$0.69
System Benefits Charge	$0.00678	$0.00678	$4.41	$4.41
Electricity Consumption Tax	$0.00000	$0.00000	$0.00	$0.00
Subtotal Retail Delivery Services			$68.32	$68.26
Energy Service Charge	$0.07193	$0.07193	$46.75	$46.75
		Total Bill	$115.08	$115.02

$ increase in 650 kWh Total Residential Bill **-$0.06**
% increase in 650 kWh Total Residential Bill **-0.05%**

(a) Rates effective March 1, 2020
(b) Rates proposed in this filing only and effective May 1, 2020

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-5
Page 1 of 1

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Municipal Taxes as a Percentage of Net Plant

		12/31/2017	12/31/2018
1	Plant in Service, per Form 1, Page 200, Line 3 (+) Line 6	229,296	247,731
2	Depreciation Reserve, per Form 1, Page 200, Line 12 (+) Line 18	(79,789)	(93,624)
3	Net Plant	149,507	154,107
4	Average Net Plant		
5	Plant in Service	213,227	238,514
6	Depreciation Reserve	(74,658)	(86,707)
7	Net Plant	138,569	151,807
8	Municipal Taxes, Form 1, Page 262, Line 1	4,478	4,730
9	% Municipal Taxes to Net Plant	3.23%	3.12%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 20-xxx
Schedule DBS-AMH-6
Page 1 of 1

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Book Depreciation Calculation Using 2018 FERC Form 1 Data Filed April 18, 2019

		Depreciation Expense		Depreciable Plant Balances		Average Depreciable Plant	Depreciation Rate
		12/31/2017	12/31/2018	12/31/2017	12/31/2018		
1	Distribution	5,304,849	5,463,619	199,161,361	215,580,549	207,370,955	2.63%
2	General	483,791	703,675	16,714,527	17,651,307	17,182,917	4.10%
3	Total - Granite	5,788,640	6,167,294	215,875,888	233,231,856	224,553,872	2.75%
4	Depreciation Expense per Form 1:						
5	FERC Form 1, Page 114						
6	Depreciation Expense (403) Line 6	5,788,640	6,167,294				
7	Depreciation Expense for ARO (403.1) Line 7	-	-				
8	Total per Form 1, Page 114	5,788,640	6,167,294				
9	FERC Form 1, Page 336						
10	Distribution (incl ARO) Line 8	5,304,849	5,463,619				
11	General Line 10	483,791	703,675				
12	Total per Form 1, Page 336	5,788,640	6,167,294				
13	Depreciable Plant Balances per Form 1:						
14	FERC Form 1, Page 204-207						
15	Distribution Plant Page 207 Line 75	200,859,082	217,253,495				
16	Land & Land Rights Page 207 Line 60	1,697,721	1,672,946				
17	Total	199,161,361	215,580,549				
18	General Plant Page 207 Line 99	18,334,899	19,271,679				
19	Land & Land Rights Page 207 Line 86	1,620,372	1,620,372				
20	Total	16,714,527	17,651,307				
21	Total, excluding Land & Land Rights	215,875,888	233,231,856				

Proposed Tariff Changes

THIS PAGE INTENTIONALLY LEFT BLANK

Rate D

Availability

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes. If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge	$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.922
Reliability Enhancement/Vegetation Management	0.008
Total Distribution	4.930
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

Issued: xxx xx, 2020
Effective: May 1, 2020

Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Title: President

Off-Peak Use: 16 Hour Control

For all electricity separately metered and delivered between the hours of 11:00 p.m. on each day and 7:00 a.m. on the next day, the price of such electricity shall be:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak Use	4.250
Reliability Enhancement/Vegetation Management	0.008
Total Distribution	4.258
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

If a Customer has installed an electric water heater of a type approved by the Company, electricity is delivered to such water heater is supplied only under this rate.

Off-Peak Use: 6 Hour Control

For all electricity separately metered and subject to the Company's right to limit the operation of the bottom water heating element up to 6 hours a day, the price of such electricity shall be:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak Use	4.329
Reliability Enhancement/Vegetation Management	0.008
Total Distribution	4.337
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Farm Use

The availability of the Farm Use Section is limited to those locations which were served under the Farm Use Section of Domestic Rate D, N.H.P.U.C. No. 8 - Electricity immediately prior to the effective date of this rate. For such farm customers, where all electricity is supplied by the Company, the RATE PER MONTH is modified as follows:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge*	4.646
Reliability Enhancement/Vegetation Management	0.008
Total Distribution	4.654
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

*All Regular Use kilowatt-hours in excess of the greater of the following:

i. 500 kilowatt-hours
ii. 100 kilowatt-hours per kilovolt-ampere of transformer capacity needed to serve the Customer

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

Rate D-10 Optional Peak Load Rate

Availability

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes to selected customers presently served under Rate D.

If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate. The availability of this rate will be subject to the Company's ability to obtain the necessary meters and to render such service.

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge	$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	10.580
Distribution Charge Off Peak	0.145
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge On Peak	10.588
Total Distribution Charge Off Peak	0.153
Transmission Service Cost Adjustment	2.388
Stranded Cost Adjustment Factor	(0.105)
Storm Recovery Adjustment Factor	0.000

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Rates for Retail Delivery Service

Customer Charge	$384.39 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	0.525
Distribution Charge Off Peak	0.156
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge On Peak	0.533
Total Distribution Charge Off Peak	0.164
Transmission Service Cost Adjustment	2.130
Stranded Cost Adjustment Factor	(0.105)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution	$8.18

Distribution Energy Charges Peak Periods

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Off-Peak hours will be from 9:00 p.m. to 8:00 a.m. daily Monday through Friday, and all day on Saturdays, Sundays, and holidays.

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak during the peak hours occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven (11) months prior to the application of this rate shall be considered as having been established under this rate.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

General Long Hour Service Rate G-2

Availability

Retail Delivery Service under this rate is available for all purposes except resale subject to the provisions of this section. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 20 kW of Demand but is less than 200 kW of Demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate. A customer may be transferred from rate G-2 at its request or at the option of the Company if the customer's twelve (12) month average monthly demand is less than 18 kW of demand for three consecutive months.

If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be furnished hereunder, except such electricity as may be delivered under the provisions of the Limited Commercial Space Heating Rate V.

Character of Service

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts.
All voltages are not available in every area.

Rate Per Month

The Rate Per Month will be the sum of the applicable Customer, Demand and Energy Charges subject to the adjustments in this tariff.

Rates for Retail Delivery Service

Customer Charge	$64.08 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	0.206
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge	0.214

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

Transmission Service Cost Adjustment	2.437
Stranded Cost Adjustment Factor	(0.102)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution $8.23

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven months prior to the application of this rate shall be considered as having been established under this rate.

Optional Determination of Demand

However, a Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a) or b) above. In such case, the Demand Charge and the Energy Charge will be increased by 20% during such period.

High Voltage Metering Adjustment

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

General Service Rate G-3

Availability

Retail Delivery Service under this rate is available for all purposes except resale. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be less than 20 kW of demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be 60 cycle, alternating current either:

a) Single-phase normally three-wire at a nominal voltage of 120/240 volts.
b) Three-phase secondary normally at a nominal voltage of 120/208, or 277/480 volts.
c) Three-phase primary normally at a nominal voltage of 2400, 4160, 4800, 7200, 13,200 or 13,800 volts.

All voltages are not available in every area.

Rate Per Month

The rate per month will be the sum of the Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge	$14.74 per month

However, if the KVA transformer capacity needed to serve a customer exceeds 25 KVA, the minimum charge will be increased by $2.61 for each KVA in excess of 25 KVA.

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.674
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge	4.682
Transmission Service Cost Adjustment	2.486
Stranded Cost Adjustment Factor	(0.104)
Storm Recovery Adjustment Factor	0.000

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Outdoor Lighting Service Rate M

Availability

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.
Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.
In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	0.000
Reliability Enhancement/Vegetation Management	0.008
Total Distribution	0.008
Transmission Service Cost Adjustment	1.483
Stranded Cost Adjustment Factor	(0.103)
Storm Recovery Adjustment Factor	0.000

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

Pole and Accessory Charge

An additional annual charge enumerated below will be applied where the Company is requested to furnish a suitable wood pole for the sole purpose of supporting a luminaire. If at a future date the pole is used for any purpose approved by the Company in addition to supporting a street and/or floodlight luminaire, the pole charge will be terminated. This pole may not be more than one (1) span from the existing secondary service located along a roadway or thoroughfare, and must be reachable for mechanized equipment.

Description	**Monthly Price Per Unit**
Overhead Service	
Wood Poles	$9.14
Underground Service – Non-Metallic Standard	
Fiberglass – Direct Embedded	$9.46
Fiberglass with Foundation < 25 ft.	$16.06
Fiberglass with Foundation >= 25 ft.	$26.82
Metal Poles – Direct Embedded	$19.14
Metal Poles with Foundation	$23.08

Other Charges

Pursuant to RSA 9-E:4, the Company provides a part-night service that, when requested by a customer, will require the replacement of the photoelectric control that will allow for the operation of the luminaire for a portion of the night. The Company shall assess the customer a Part Night Charge of $150 for the installation of each photoelectric control that must be replaced in order for part-night service to be operational and for the removal of such photoelectric control upon the customer's request to return to full-night service. For installation or removal of each photoelectric control made during a scheduled maintenance visit or during the installation of a new outdoor lighting service, the Company shall assess the customer a Part Night Charge of $20 for the installation or removal of each such photoelectric control. The Part Night Charge does not include the cost or fees associated with any work-zone protection, traffic control services and/or permits required to perform the customer requested change, all of which shall be the responsibility of the customer.

The energy charges for each luminaire will be determined by multiplying the current energy charges per kilowatt-hour by the average monthly kilowatt-hours shown in the following table:

All-Night Service Option:
The monthly kilowatt-hours and distribution rates for each luminaire served under the all-night service option are shown below.

For New and Existing Installations:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire												Monthly Distribution Rate
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
High Pressure Sodium Roadway:														
4,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$7.72
9,600	100	43	37	37	33	33	29	30	33	35	39	41	44	$9.39
27,500	250	108	92	93	82	78	72	76	82	88	98	102	110	$16.51
50,000	400	172	147	149	131	125	115	121	132	140	157	164	175	$21.51
High Pressure Sodium Post Top:														
9,600	100	43	37	37	33	33	29	30	33	35	39	41	44	$10.82
High Pressure Sodium Flood:														
27,500	250	108	92	93	82	78	72	76	82	88	98	102	110	$16.65
50,000	400	172	147	149	131	125	115	121	132	140	157	164	175	$22.99

For Existing Installations Only:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire												Monthly Distribution Rate
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Incandescent:														
1,000	103	44	38	38	34	32	30	31	34	36	41	42	45	$10.34
Mercury Vapor Roadway:														
4,000	100	22	18	19	16	16	14	15	16	18	20	20	22	$7.46
8,000	175	43	37	37	33	33	29	30	33	35	39	41	44	$9.10
22,000	400	108	92	93	82	78	72	76	82	88	98	102	110	$17.22
63,000	1000	172	147	149	131	125	115	121	132	140	157	164	175	$32.70
Mercury Vapor Flood:														
22,000	400	108	92	93	82	78	72	76	82	88	98	102	110	$19.05
63,000	1000	172	147	149	131	125	115	121	132	140	157	164	175	$32.91

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

For New and Existing Installations:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire												Monthly Distribution Rate
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
LED:														
3,000	30	13	11	11	10	9	9	9	10	11	12	12	13	$11.43
5,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$11.90
16,000	130	56	48	48	42	40	37	39	43	46	51	53	57	$13.75
21,000	190	82	70	71	62	59	55	58	62	67	75	78	83	$18.11
LED Underground Residential Developments:														
5,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$13.08
LED Flood:														
9,400	90	39	33	34	29	28	26	27	30	32	35	37	39	$13.18
14,600	130	56	48	48	42	40	37	39	43	46	51	53	57	$14.44
LED Barn:														
4,800	50	22	18	19	16	16	14	15	16	18	20	20	22	$5.02

Limitations on Availability

The availability of this rate to any Customer is contingent upon the availability to the Company of personnel and/or other resources necessary to perform the conversion of existing Fixtures.

Special Rate Conditions

Charges for the operation of outdoor lights may be increased if, in the Company's opinion, lights are to be installed in locations or under conditions such that estimated income will be insufficient to justify the estimated cost of construction.

Billings

One-twelfth of the annual price of luminaires, poles and accessories plus energy charges, including adjustments, will be billed each month beginning with the month following the month in which service is rendered.

Luminaire Charges and Pole and Accessory Charges will be based on the monthly rates above as measured from the date of the prior bill to the current bill date.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff.

Rates for Retail Delivery Service

Customer Charge	$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.067
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge	4.075
Transmission Service Cost Adjustment	2.762
Stranded Cost Adjustment Factor	(0.108)
Storm Recovery Adjustment Factor	0.000

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Rates for Retail Delivery Service

Customer Charge	$14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.805
Reliability Enhancement/Vegetation Management	0.008
Total Distribution Charge	4.813
Transmission Service Cost Adjustment	2.515
Stranded Cost Adjustment Factor	(0.103)
Storm Recovery Adjustment Factor	0.000

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional on-site, non-emergency generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

NHPUC No. 20 - ELECTRICITY
LIBERTY UTILITIES

Thirtieth Revised Page 117
Superseding Twelfth Revised Page 117
Summary of Rates

RATES EFFECTIVE MAY 1, 2020
FOR USAGE ON AND AFTER MAY 1, 2020

Rate	Blocks	Distribution Charge	REP/ VMP	**Net Distribution Charge**	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	**Total Delivery Service**	Energy Service	**Total Rate**
D	Customer Charge	$ 14.74		**14.74**						**14.74**		**$ 14.74**
	All kWh	$ 0.04922	0.00008	**0.04930**	0.02732	(0.00106)	-	0.00678	-	**0.08234**	0.07193	**$ 0.15427**
Off Peak Water Heating Use 16 Hour Control[1]	All kWh	$ 0.04250	0.00008	**0.04258**	0.02732	(0.00106)	-	0.00678	-	**0.07562**	0.07193	**$ 0.14755**
Off Peak Water Heating Use 6 Hour Control[1]	All kWh	$ 0.04329	0.00008	**0.04337**	0.02732	(0.00106)	-	0.00678	-	**0.07641**	0.07193	**$ 0.14834**
Farm[1]	All kWh	$ 0.04646	0.00008	**0.04654**	0.02732	(0.00106)	-	0.00678	-	**0.07958**	0.07193	**$ 0.15151**
D-10	Customer Charge	$ 14.74		**14.74**						**14.74**		**$ 14.74**
	On Peak kWh	$ 0.10580	0.00008	**0.10588**	0.02388	(0.00105)	-	0.00678	-	**0.13549**	0.07193	**$ 0.20742**
	Off Peak kWh	$ 0.00145	0.00008	**0.00153**	0.02388	(0.00105)	-	0.00678	-	**0.03114**	0.07193	**$ 0.10307**
G-1	Customer Charge	$ 384.39		**384.39**						**384.39**		**$ 384.39**
	Demand Charge	$ 8.18		**8.18**						**8.18**		**$ 8.18**
	On Peak kWh	$ 0.00525	0.00008	**0.00533**	0.02130	(0.00105)	-	0.00678	-	**0.03236**		
									Effective 2/1/20, usage on or after		0.09749	**$ 0.12985**
									Effective 3/1/20, usage on or after		0.07777	**$ 0.11013**
									Effective 4/1/20, usage on or after		0.06715	**$ 0.09951**
									Effective 5/1/20, usage on or after		0.05868	**$ 0.09104**
									Effective 6/1/20, usage on or after		0.05246	**$ 0.08482**
									Effective 7/1/20, usage on or after		0.05790	**$ 0.09026**
	Off Peak kWh	$ 0.00156	0.00008	**0.00164**	0.02130	(0.00105)	-	0.00678	-	**0.02867**		
									Effective 2/1/20, usage on or after		0.09749	**$ 0.12616**
									Effective 3/1/20, usage on or after		0.07777	**$ 0.10644**
									Effective 4/1/20, usage on or after		0.06715	**$ 0.09582**
									Effective 5/1/20, usage on or after		0.05868	**$ 0.08735**
									Effective 6/1/20, usage on or after		0.05246	**$ 0.08113**
									Effective 7/1/20, usage on or after		0.05790	**$ 0.08657**
G-2	Customer Charge	$ 64.08		**64.08**						**64.08**		**$ 64.08**
	Demand Charge	$ 8.23		**8.23**						**8.23**		**$ 8.23**
	All kWh	$ 0.00206	0.00008	**0.00214**	0.02437	(0.00102)	-	0.00678	-	**0.03227**		
									Effective 2/1/20, usage on or after		0.09749	**$ 0.12976**
									Effective 3/1/20, usage on or after		0.07777	**$ 0.11004**
									Effective 4/1/20, usage on or after		0.06715	**$ 0.09942**
									Effective 5/1/20, usage on or after		0.05868	**$ 0.09095**
									Effective 6/1/20, usage on or after		0.05246	**$ 0.08473**
									Effective 7/1/20, usage on or after		0.05790	**$ 0.09017**
G-3	Customer Charge	$ 14.74		**14.74**						**14.74**		**$ 14.74**
	All kWh	$ 0.04674	0.00008	**0.04682**	0.02486	(0.00104)	-	0.00678	-	**0.07742**	0.07193	**$ 0.14935**
M	All kWh	$ -	0.00008	**0.00008**	0.01483	(0.00103)	-	0.00678	-	**0.02066**	0.07193	**$ 0.09259**
T	Customer Charge	$ 14.74		**14.74**						**14.74**		**$ 14.74**
	All kWh	$ 0.04067	0.00008	**0.04075**	0.02762	(0.00108)	-	0.00678	-	**0.07407**	0.07193	**$ 0.14600**
V	Minimum Charge	$ 14.74		**14.74**						**14.74**		**$ 14.74**
	All kWh	$ 0.04805	0.00008	**0.04813**	0.02515	(0.00103)	-	0.00678	-	**0.07903**	0.07193	**$ 0.15096**

[1] Rate is a subset of Domestic Rate D

Issued by: /s/Susan L. Fleck
Susan L. Fleck
Title: President

Dated: xxx xx, 2020
Effective: May 1, 2020

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

Rate D

Availability

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes. If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge	$~~14.67~~14.74 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	~~4.898~~4.922
Reliability Enhancement/Vegetation Management	~~0.052~~0.008
Total Distribution	~~4.950~~4.930
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

Issued: ~~July~~ xxx ~~8~~xx, 20~~19~~20 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: ~~July 1~~May 1, 20~~19~~20 Title: President

Off-Peak Use: 16 Hour Control

For all electricity separately metered and delivered between the hours of 11:00 p.m. on each day and 7:00 a.m. on the next day, the price of such electricity shall be:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak Use	~~4.229~~4.250
Reliability Enhancement/Vegetation Management	~~0.052~~0.008
Total Distribution	~~4.281~~4.258
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

If a Customer has installed an electric water heater of a type approved by the Company, electricity is delivered to such water heater is supplied only under this rate.

Off-Peak Use: 6 Hour Control

For all electricity separately metered and subject to the Company's right to limit the operation of the bottom water heating element up to 6 hours a day, the price of such electricity shall be:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge Off Peak Use	~~4.308~~4.329
Reliability Enhancement/Vegetation Management	~~0.052~~0.008
Total Distribution	~~4.360~~4.337
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

If a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Farm Use

The availability of the Farm Use Section is limited to those locations which were served under the Farm Use Section of Domestic Rate D, N.H.P.U.C. No. 8 - Electricity immediately prior to the effective date of this rate. For such farm customers, where all electricity is supplied by the Company, the RATE PER MONTH is modified as follows:

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge*	~~4.623~~4.646
Reliability Enhancement/Vegetation Management	~~0.052~~0.008
Total Distribution	~~4.675~~4.654
Transmission Service Cost Adjustment	2.732
Stranded Cost Adjustment Factor	(0.106)
Storm Recovery Adjustment Factor	0.000

*All Regular Use kilowatt-hours in excess of the greater of the following:

i. 500 kilowatt-hours
ii. 100 kilowatt-hours per kilovolt-ampere of transformer capacity needed to serve the Customer

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Rate D-10 Optional Peak Load Rate

Availability

Retail Delivery Service under this rate is available for all domestic purposes in an individual private dwelling or an individual apartment and for farm purposes to selected customers presently served under Rate D.

If electricity is delivered through more than one meter, the charge for electricity delivered through each meter shall be computed separately under this rate. The availability of this rate will be subject to the Company's ability to obtain the necessary meters and to render such service.

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge per month	$~~14.67~~14.74

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge On Peak	~~10.528~~10.580
Distribution Charge Off Peak	0.145
Reliability Enhancement/Vegetation Management	~~0.052~~0.008
Total Distribution Charge On Peak	~~10.580~~10.588
Total Distribution Charge Off Peak	~~0.197~~0.153
Transmission Service Cost Adjustment	2.388
Stranded Cost Adjustment Factor	(0.105)
Storm Recovery Adjustment Factor	0.000

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

NHPUC NO. 20 - ELECTRICITY DELIVERY ~~Third~~ Fourth Revised Page 98
LIBERTY UTILITIES Superseding ~~Second~~ Third Revised Page 98
Rate G-1

Rates for Retail Delivery Service

Customer Charge	$~~382.48~~384.39 per month
Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)	
Distribution Charge On Peak	~~0.5230~~ .525
Distribution Charge Off Peak	~~0.1560~~ .156
Reliability Enhancement/Vegetation Management	~~0.0520~~. 008
Total Distribution Charge On Peak	~~0.5750~~ .533
Total Distribution Charge Off Peak	~~0.2080~~ .164
Transmission Service Cost Adjustment	2.130
Stranded Cost Adjustment Factor	(0.105)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution	$~~8.14~~8.18

Distribution Energy Charges Peak Periods

Peak hours will be from 8:00 a.m. to 9:00 p.m. daily on Monday through Friday excluding holidays.

Off-Peak hours will be from 9:00 p.m. to 8:00 a.m. daily Monday through Friday, and all day on Saturdays, Sundays, and holidays.

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak during the peak hours occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven (11) months prior to the application of this rate shall be considered as having been established under this rate.

General Long Hour Service Rate G-2

Availability

Retail Delivery Service under this rate is available for all purposes except resale subject to the provisions of this section. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 20 kW of Demand but is less than 200 kW of Demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate. A customer may be transferred from rate G-2 at its request or at the option of the Company if the customer's twelve (12) month average monthly demand is less than 18 kW of demand for three consecutive months.

If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be furnished hereunder, except such electricity as may be delivered under the provisions of the Limited Commercial Space Heating Rate V.

Character of Service

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts.
All voltages are not available in every area.

Rate Per Month

The Rate Per Month will be the sum of the applicable Customer, Demand and Energy Charges subject to the adjustments in this tariff.

Rates for Retail Delivery Service

Customer Charge	$~~63.77~~64.08 per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	~~0.205~~0.206
Reliability Enhancement/Vegetation Management	~~0.052~~0.008

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Total Distribution Charge	~~0.257~~0.214

Issued:	xxx xx, 2020	Issued by:	/s/ Susan L. Fleck Susan L. Fleck
Effective:	May 1, 2020	Title:	President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued:~~	~~July 8, 2019~~	~~Issued by:~~	~~/s/ Susan L. Fleck~~ ~~Susan L. Fleck~~
~~Effective:~~	~~July 1, 2019~~	~~Title:~~	~~President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Transmission Service Cost Adjustment	2.437
Stranded Cost Adjustment Factor	(0.102)
Storm Recovery Adjustment Factor	0.000

Demand Charges Per Kilowatt

Distribution $~~8.19~~8.23

Demand

The Demand for each month under ordinary load conditions shall be the greatest of the following:

1. The greatest fifteen-minute peak during the peak hours which occurs during such month as measured in kilowatts,
2. 90% of the greatest fifteen-minute peak occurring during such month as measured in kilovolt-amperes where the Customer's kilowatt Demand exceeds 75 kilowatts, or
3. 80% of the greatest Demand as so determined above during the preceding eleven months.

Any Demands established during the eleven months prior to the application of this rate shall be considered as having been established under this rate.

Optional Determination of Demand

However, a Customer who has been served hereunder for one year or more may upon written request have the Demand for each month, beginning with the next month after such request and running for a period of not less than two consecutive months, be based upon the greatest of items a) or b) above. In such case, the Demand Charge and the Energy Charge will be increased by 20% during such period.

High Voltage Metering Adjustment

The Company reserves the right to determine the metering installation. Where service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1% will be allowed from the amount determined under the preceding provisions.

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Issued: xxx xx, 2020
Effective: May 1, 2020

Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019~~
~~Effective: July 1, 2019~~

~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

General Service Rate G-3

Availability

Retail Delivery Service under this rate is available for all purposes except resale. The sale of electric vehicle charging services to a third party from an electric vehicle charging station shall not be considered resale of electricity. A Customer will take delivery service on this rate if the Company estimates that its average use will be less than 20 kW of demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

Character of Service

Service supplied under this rate will be 60 cycle, alternating current either:

a) Single-phase normally three-wire at a nominal voltage of 120/240 volts.
b) Three-phase secondary normally at a nominal voltage of 120/208, or 277/480 volts.
c) Three-phase primary normally at a nominal voltage of 2400, 4160, 4800, 7200, 13,200 or 13,800 volts.

All voltages are not available in every area.

Rate Per Month

The rate per month will be the sum of the Customer and Energy Charges subject to the adjustments in this tariff:

Rates for Retail Delivery Service

Customer Charge	$14.~~67~~74 per month

However, if the KVA transformer capacity needed to serve a customer exceeds 25 KVA, the minimum charge will be increased by $2.61~~0~~ for each KVA in excess of 25 KVA.

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.~~651~~6 74
Reliability Enhancement/Vegetation Management	0.00852
Total Distribution Charge	4.~~682~~7 ~~03~~
Transmission Service Cost Adjustment	2.486
Stranded Cost Adjustment Factor	(0.104)

Issued: ~~August 13~~xxx xx, 202~~019~~
Issued by: /s/ Susan L. Fleck
Susan L. Fleck

Effective: ~~July~~ May 1, 20~~19~~20
Title: President

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Third~~ Fourth Revised Page 103
Superseding ~~Second~~ Third Revised Page 103
Rate G-3

Storm Recovery Adjustment Factor	0.000

Issued: ~~August 13~~xxx xx, 202~~019~~

Issued by: /s/ Susan L. Fleck
Susan L. Fleck

Effective: ~~July~~ May 1, 20~~19~~20

Title: President

Authorized by NHPUC Order No. ~~26,267~~xx,xxx in Docket DE ~~19~~20-~~064~~xxx, Dated ~~June 28~~xxx xx, 202~~019~~

Outdoor Lighting Service Rate M

Availability

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.
Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.
In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	0.000
Reliability Enhancement/Vegetation Management	0.008~~0.052~~
Total Distribution	0.008~~0.052~~
Transmission Service Cost Adjustment	1.483
Stranded Cost Adjustment Factor	(0.103)
Storm Recovery Adjustment Factor	0.000

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: May 14, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: May 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,242 in Docket DE 16-383, Dated April 30, 2019, Order No. 26,243 in Docket DE 19-062, Dated April 30, 2019, and Order No. 26,244 in Docket DE 19-051, Dated April 30, 2019~~

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: May 14, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: May 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,242 in Docket DE 16-383, Dated April 30, 2019, Order No. 26,243 in Docket DE 19-062, Dated April 30, 2019, and Order No. 26,244 in Docket DE 19-051, Dated April 30, 2019~~

Pole and Accessory Charge

An additional annual charge enumerated below will be applied where the Company is requested to furnish a suitable wood pole for the sole purpose of supporting a luminaire. If at a future date the pole is used for any purpose approved by the Company in addition to supporting a street and/or floodlight luminaire, the pole charge will be terminated. This pole may not be more than one (1) span from the existing secondary service located along a roadway or thoroughfare, and must be reachable for mechanized equipment.

Description	**Monthly Price Per Unit**
Overhead Service	
Wood Poles	$9.14~~9.09~~
Underground Service – Non-Metallic Standard	
Fiberglass – Direct Embedded	$9.46~~9.41~~
Fiberglass with Foundation < 25 ft.	$16.06~~15.98~~
Fiberglass with Foundation >= 25 ft.	$26.82~~26.69~~
Metal Poles – Direct Embedded	$19.14~~19.04~~
Metal Poles with Foundation	$23.08~~22.97~~

Other Charges

Pursuant to RSA 9-E:4, the Company provides a part-night service that, when requested by a customer, will require the replacement of the photoelectric control that will allow for the operation of the luminaire for a portion of the night. The Company shall assess the customer a Part Night Charge of $150 for the installation of each photoelectric control that must be replaced in order for part-night service to be operational and for the removal of such photoelectric control upon the customer's request to return to full-night service. For installation or removal of each photoelectric control made during a scheduled maintenance visit or during the installation of a new outdoor lighting service, the Company shall assess the customer a Part Night Charge of $20 for the installation or removal of each such photoelectric control. The Part Night Charge does not include the cost or fees associated with any work-zone protection, traffic control services and/or permits required to perform the customer requested change, all of which shall be the responsibility of the

customer.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

The energy charges for each luminaire will be determined by multiplying the current energy charges per kilowatt-hour by the average monthly kilowatt-hours shown in the following table:

All-Night Service Option:
The monthly kilowatt-hours and distribution rates for each luminaire served under the all-night service option are shown below.

For New and Existing Installations:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire												Monthly Distribution Rate
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
High Pressure Sodium Roadway:														
4,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$7.72~~7.69~~
9,600	100	43	37	37	33	33	29	30	33	35	39	41	44	$9.39~~9.35~~
27,500	250	108	92	93	82	78	72	76	82	88	98	102	110	$16.51~~16.43~~
50,000	400	172	147	149	131	125	115	121	132	140	157	164	175	$21.51~~21.41~~
High Pressure Sodium Post Top:														
9,600	100	43	37	37	33	33	29	30	33	35	39	41	44	$10.82~~10.77~~
High Pressure Sodium Flood:														
27,500	250	108	92	93	82	78	72	76	82	88	98	102	110	$16.65~~16.57~~
50,000	400	172	147	149	131	125	115	121	132	140	157	164	175	$22.99~~22.88~~

For Existing Installations Only:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire												Monthly Distribution Rate
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Incandescent:														
1,000	103	44	38	38	34	32	30	31	34	36	41	42	45	$10.34~~10.29~~
Mercury Vapor Roadway:														
4,000	100	22	18	19	16	16	14	15	16	18	20	20	22	$7.46~~7.43~~
8,000	175	43	37	37	33	33	29	30	33	35	39	41	44	$9.10~~9.06~~
22,000	400	108	92	93	82	78	72	76	82	88	98	102	110	$17.22~~17.14~~
63,000	1000	172	147	149	131	125	115	121	132	140	157	164	175	$32.70~~32.54~~

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Mercury Vapor Flood:

22,000	400	108	92	93	82	78	72	76	82	88	98	102	110	$19.05~~18.96~~
63,000	1000	172	147	149	131	125	115	121	132	140	157	164	175	$32.91~~32.75~~

For New and Existing Installations:

Lamp Light Output Lumens	Nominal Power Rating Watts	Monthly KWH per Luminaire Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Monthly Distribution Rate
LED:														
3,000	30	13	11	11	10	9	9	9	10	11	12	12	13	$11.43~~11.38~~
5,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$11.90~~11.85~~
16,000	130	56	48	48	42	40	37	39	43	46	51	53	57	$13.75~~13.69~~
21,000	190	82	70	71	62	59	55	58	62	67	75	78	83	$18.11~~18.02~~
LED Underground Residential Developments:														
5,000	50	22	18	19	16	16	14	15	16	18	20	20	22	$13.08~~13.02~~
LED Flood:														
9,400	90	39	33	34	29	28	26	27	30	32	35	37	39	$13.18~~13.12~~
14,600	130	56	48	48	42	40	37	39	43	46	51	53	57	$14.44~~14.37~~
LED Barn:														
4,800	50	22	18	19	16	16	14	15	16	18	20	20	22	$5.02~~5.00~~

Limitations on Availability

The availability of this rate to any Customer is contingent upon the availability to the Company of personnel and/or other resources necessary to perform the conversion of existing Fixtures.

Special Rate Conditions

Charges for the operation of outdoor lights may be increased if, in the Company's opinion, lights are to be installed in locations or under conditions such that estimated income will be insufficient to justify the estimated cost of construction.

Billings

One-twelfth of the annual price of luminaires, poles and accessories plus energy charges, including adjustments, will be billed each month beginning with the month following the month in which service is rendered.

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Luminaire Charges and Pole and Accessory Charges will be based on the monthly rates above as measured from the date of the prior bill to the current bill date.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

Character of Service

Service supplied under this rate will be single phase, 60 cycle, alternating current, normally three-wire service at a nominal voltage of 120/240 volts or three-wire 120/208 volts, whichever is available at the location.

Rate Per Month

The rate per month will be the sum of the applicable Customer and Energy Charges subject to the adjustments in this tariff.

Rates for Retail Delivery Service

Customer Charge	$14.74~~14.67~~ per month

Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)

Distribution Charge	4.067~~4~~ ~~.047~~
Reliability Enhancement/Vegetation Management	0.008 ~~0.052~~
Total Distribution Charge	4.075~~4~~ ~~.099~~
Transmission Service Cost Adjustment	2.762
Stranded Cost Adjustment Factor	(0.108)
Storm Recovery Adjustment Factor	0.000

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: xxx xx, 2020 Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020 Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8, 2019 Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019 Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

NHPUC NO. 20 - ELECTRICITY DELIVERY
LIBERTY UTILITIES

~~Third~~ Fourth Revised Page 116
Superseding ~~Second~~ Third Revised Page 116
Rate V

Rates for Retail Delivery Service

Customer Charge	$~~14.67~~14.74 per month
Energy Charges Per Kilowatt-Hour (cents per kilowatt-hour)	
Distribution Charge	4.805~~4~~ ~~.782~~
Reliability Enhancement/Vegetation Management	0.008 ~~0.052~~
Total Distribution Charge	4.813~~4~~ ~~.834~~
Transmission Service Cost Adjustment	2.515
Stranded Cost Adjustment Factor	(0.103)
Storm Recovery Adjustment Factor	0.000

Terms of Agreement

A Customer served under this rate must provide the Company with one-year prior written notice before installing additional on-site, non-emergency generation for its own use. This notice provision shall be waived with respect to the installation of on-site non-emergency generation from renewable energy resources. Renewable energy resources shall mean fuel cells (including natural gas powered fuel cells), and emerging power generation technologies that produce electricity from wind energy, solar energy, small-scale hydro power, ocean power, landfill gas, sustainably managed biomass, and future clean renewable technologies.

Issued: xxx xx, 2020
Issued by: /s/ Susan L. Fleck
Susan L. Fleck
Effective: May 1, 2020
Title: President

Authorized by NHPUC Order No. xx,xxx in Docket DE 20-xxx, Dated xxx xx, 2020

~~Issued: July 8 , 2019~~
~~Issued by: /s/ Susan L. Fleck~~
~~Susan L. Fleck~~
~~Effective: July 1, 2019~~
~~Title: President~~

~~Authorized by NHPUC Order No. 26,267 in Docket DE 19-064, Dated June 28, 2019~~

NHPUC No. 20 - ELECTRICITY
LIBERTY UTILITIES

~~Twelfth~~ Revised Page 117
Superseding ~~Eleventh~~ Revised Page 117
Summary of Rates

RATES EFFECTIVE ~~FEBRUARY 1~~, 2020
FOR USAGE ON AND AFTER ~~FEBRUARY 1~~, 2020

Rate	Blocks	Distribution Charge	REP/ VMP	**Net Distribution Charge**	Transmission Charge	Stranded Cost Charge	Storm Recovery Adjustment Factor	System Benefits Charge	Electricity Consumption Tax	**Total Delivery Service**	Energy Service	**Total Rate**
D	Customer Charge	~~$ 14.67~~		~~**14.67**~~						~~**14.67**~~		~~**$ 14.67**~~
	All kWh	~~$ 0.04898~~	~~0.00052~~	~~**0.04950**~~	0.02732	(0.00106)	-	0.00678	-	~~**0.08254**~~	0.07193	~~**$ 0.15447**~~
Off Peak Water Heating Use 16 Hour Control[1]	All kWh	~~$ 0.04229~~	~~0.00052~~	~~**0.04281**~~	0.02732	(0.00106)	-	0.00678	-	~~**0.07585**~~	0.07193	~~**$ 0.14778**~~
Off Peak Water Heating Use 6 Hour Control[1]	All kWh	~~$ 0.04308~~	~~0.00052~~	~~**0.04360**~~	0.02732	(0.00106)	-	0.00678	-	~~**0.07664**~~	0.07193	~~**$ 0.14857**~~
Farm[1]	All kWh	~~$ 0.04623~~	~~0.00052~~	~~**0.04675**~~	0.02732	(0.00106)	-	0.00678	-	~~**0.07979**~~	0.07193	~~**$ 0.15172**~~
D-10	Customer Charge	~~$ 14.67~~		~~**14.67**~~						~~**14.67**~~		~~**$ 14.67**~~
	On Peak kWh	~~$ 0.10528~~	~~0.00052~~	~~**0.10580**~~	0.02388	(0.00105)	-	0.00678	-	~~**0.13541**~~	0.07193	~~**$ 0.20734**~~
	Off Peak kWh	~~$ 0.00145~~	~~0.00052~~	~~**0.00197**~~	0.02388	(0.00105)	-	0.00678	-	~~**0.03158**~~	0.07193	~~**$ 0.10351**~~
G-1	Customer Charge	~~$ 382.48~~		~~**382.48**~~						~~**382.48**~~		~~**$ 382.48**~~
	Demand Charge	~~$ 8.14~~		~~**8.14**~~						~~**8.14**~~		~~**$ 8.14**~~
	On Peak kWh	~~$ 0.00523~~	~~0.00052~~	~~**0.00575**~~	0.02130	(0.00105)	-	0.00678	-	~~**0.03278**~~		
									Effective 2/1/20, usage on or after		0.09749	~~**$ 0.13027**~~
									Effective 3/1/20, usage on or after		0.07777	~~**$ 0.11055**~~
									Effective 4/1/20, usage on or after		0.06715	~~**$ 0.09993**~~
									Effective 5/1/20, usage on or after		0.05868	~~**$ 0.09146**~~
									Effective 6/1/20, usage on or after		0.05246	~~**$ 0.08524**~~
									Effective 7/1/20, usage on or after		0.05790	~~**$ 0.09068**~~
	Off Peak kWh	~~$ 0.00156~~	~~0.00052~~	~~**0.00208**~~	0.02130	(0.00105)	-	0.00678	-	~~**0.02911**~~		
									Effective 2/1/20, usage on or after		0.09749	~~**$ 0.12660**~~
									Effective 3/1/20, usage on or after		0.07777	~~**$ 0.10688**~~
									Effective 4/1/20, usage on or after		0.06715	~~**$ 0.09626**~~
									Effective 5/1/20, usage on or after		0.05868	~~**$ 0.08779**~~
									Effective 6/1/20, usage on or after		0.05246	~~**$ 0.08157**~~
									Effective 7/1/20, usage on or after		0.05790	~~**$ 0.08701**~~
G-2	Customer Charge	~~$ 63.77~~		~~**63.77**~~						~~**63.77**~~		~~**$ 63.77**~~
	Demand Charge	~~$ 8.19~~		~~**8.19**~~						~~**8.19**~~		~~**$ 8.19**~~
	All kWh	~~$ 0.00205~~	~~0.00052~~	~~**0.00257**~~	0.02437	(0.00102)	-	0.00678	-	~~**0.03270**~~		
									Effective 2/1/20, usage on or after		0.09749	~~**$ 0.13019**~~
									Effective 3/1/20, usage on or after		0.07777	~~**$ 0.11047**~~
									Effective 4/1/20, usage on or after		0.06715	~~**$ 0.09985**~~
									Effective 5/1/20, usage on or after		0.05868	~~**$ 0.09138**~~
									Effective 6/1/20, usage on or after		0.05246	~~**$ 0.08516**~~
									Effective 7/1/20, usage on or after		0.05790	~~**$ 0.09060**~~
G-3	Customer Charge	~~$ 14.67~~		~~**14.67**~~						~~**14.67**~~		~~**$ 14.67**~~
	All kWh	~~$ 0.04651~~	~~0.00052~~	~~**0.04703**~~	0.02486	(0.00104)	-	0.00678	-	~~**0.07763**~~	0.07193	~~**$ 0.14956**~~
M	All kWh	$ -	~~0.00052~~	~~**0.00052**~~	0.01483	(0.00103)	-	0.00678	-	~~**0.02110**~~	0.07193	~~**$ 0.09303**~~
T	Customer Charge	~~$ 14.67~~		~~**14.67**~~						~~**14.67**~~		~~**$ 14.67**~~
	All kWh	~~$ 0.04047~~	~~0.00052~~	~~**0.04099**~~	0.02762	(0.00108)	-	0.00678	-	~~**0.07431**~~	0.07193	~~**$ 0.14624**~~
V	Minimum Charge	~~$ 14.67~~		~~**14.67**~~						~~**14.67**~~		~~**$ 14.67**~~
	All kWh	~~$ 0.04782~~	~~0.00052~~	~~**0.04834**~~	0.02515	(0.00103)	-	0.00678	-	~~**0.07924**~~	0.07193	~~**$ 0.15117**~~

[1] Rate is a subset of Domestic Rate D

Issued by: /s/Susan L. Fleck
Susan L. Fleck
Title: President

Dated: ~~Jaunary 28, 2020~~
Effective: ~~February 1, 2020~~

~~Authorized by NHPUC Order No. 26,320 in Docket DE 19-059, Dated December 23, 2019~~