

**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
REP/VMP Revenue Requirement
Annual Rate Changes
CY 2017 Actual**

	Actual <u>7/1/2008</u> (a)	Actual <u>7/1/2009</u> (b)	Actual <u>7/1/2010</u> (c)	Actual <u>7/1/2011</u> (d)	Actual <u>7/1/2012</u> (e)	Actual <u>7/1/2013</u> (f)	Actual <u>6/1/2014</u> (g)	Actual <u>5/1/2015</u> (h)	Actual <u>6/1/2016</u> (i)	Actual <u>5/1/2017</u> (i)	Actual <u>5/1/2018</u> (j)	
<u>Annual Incremental Rate Adjustments</u>												
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
2	REP Capital Program	\$165,840	\$75,740	\$163,663	\$102,941	(\$18,005)	\$125,829	\$37,374	\$253,423	\$180,132	\$120,019	\$166,322
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	\$718,736
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
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)	\$794,840

Notes:
Line 1 From Page 2 of 14, Line 7
Line 2 From Page 3 of 14, Line 60
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 2017 Actual

	Actual FY <u>2008</u> (a)	Actual FY <u>2009</u> (b)	Actual FY <u>2010</u> (c)	Actual FY <u>2011</u> (d)	Actual FY <u>2012</u> (e)	Actual FY <u>2013</u> (f)	Actual CYS <u>2013</u> (f)	Actual CY <u>2014</u> (g)	Actual CY <u>2015</u> (h)	Actual CY <u>2016</u> (i)	Actual CY <u>2017</u> (j)	
<u>Incremental VMP and REP O&M Spend</u>												
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	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
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
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
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
6	Less Reimbursements from FairPoint Communications	\$0	\$0	(\$148,760)	(\$644,098)	(\$402,693)	(\$253,054)	(\$311,701)	(\$245,751)	(\$288,000)	(\$350,000)	(\$442,992)
7	Total Incremental Revenue Requirement for Adj. Factor	\$0	\$113,832	\$1,047,770	(\$758,113)	(\$295,207)	(\$52,081)	(\$275,840)	(\$210,585)	\$346,184	(\$76,104)	\$552,414
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

Notes:

- Line 1 2017 Actual VMP and REP program spending includes \$306,512 of 2016 invoices that were paid in 2017
- 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 FairPoint 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 2017 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	
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
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
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%
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
7	FY 2009 Spend		\$338,156		\$11,227	\$10,387	\$9,606	\$4,999	\$6,665	\$8,219	\$7,503	\$7,503
8	FY 2010 Spend			\$550,022	\$24,467	\$22,630	\$20,936	\$10,892	\$14,522	\$17,913	\$16,567	\$15,123
9	FY 2011 Spend				\$481,705	\$9,685	\$8,958	\$4,662	\$6,215	\$7,665	\$7,090	\$6,558
10	FY 2012 Spend					\$377,329	\$2,968	\$1,544	\$2,059	\$2,539	\$2,349	\$2,173
11	FY 2013 Spend						\$332,964	\$11,900	\$15,867	\$14,676	\$13,577	\$12,557
12	CYS 2013 Spend							\$212,773	\$5,861	\$15,043	\$13,913	\$12,871
13	CY 2014 Spend								\$1,142,236	\$79,478	\$73,510	\$68,006
14	CY 2015 Spend									\$685,505	\$47,698	\$44,117
15	CY 2016 Spend										\$440,621	\$30,659
												\$881,372
15	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
16	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
17												
18	STATE Vintage Year Tax Depreciation:											
19	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
20	FY 2009 Spend		\$176,311	\$24,277	\$22,455	\$20,773	\$19,213	\$9,998	\$13,330	\$16,438	\$15,006	\$15,002
21	FY 2010 Spend			\$223,801	\$48,935	\$45,261	\$41,872	\$21,784	\$29,045	\$35,825	\$33,134	\$30,246
22	FY 2011 Spend				\$199,462	\$30,854	\$28,538	\$14,850	\$19,800	\$24,417	\$22,588	\$20,891
23	FY 2012 Spend					\$181,087	\$19,837	\$10,320	\$13,761	\$16,973	\$15,698	\$14,522
24	FY 2013 Spend						\$179,810	\$20,395	\$27,193	\$25,151	\$23,268	\$21,520
25	CYS 2013 Spend							\$8,791	\$11,721	\$30,086	\$27,827	\$25,743
26	CY 2014 Spend								\$82,571	\$158,955	\$147,021	\$136,011
27	CY 2015 Spend									\$49,555	\$95,396	\$88,234
28	CY 2016 Spend										\$31,852	\$61,317
												\$63,714
28	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
29	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
30												
31	Book Depreciation	\$35,150	\$53,940	\$86,304	\$109,645	\$124,074	\$129,109	\$119,933	\$140,398	\$223,690	\$247,983	\$286,205
32	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
33												
34	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
35	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
36	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
37	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%
38	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
39	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
40	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%
41	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
42	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
43												
44	Rate Base Calculation											
45	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
46	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)
47	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)
48	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
49												
50	Revenue Requirement Calculation											
51	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
52	Pre-Tax ROR	11.91%	11.91%	11.91%	11.91%	11.91%	11.91%	11.36%	11.36%	11.36%	11.36%	10.04%
53	Return and Taxes	\$90,515	\$129,051	\$200,435	\$240,410	\$258,183	\$295,084	\$312,413	\$504,338	\$603,837	\$655,522	\$692,548
54	Book Depreciation	\$35,150	\$53,940	\$86,304	\$109,645	\$124,074	\$129,109	\$119,933	\$140,398	\$223,690	\$247,983	\$286,205
55	Property Taxes (b)	\$21,773	\$27,218	\$66,676	\$99,904	\$110,318	\$118,343	\$149,961	\$190,995	\$161,819	\$232,376	\$323,449
56	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	\$1,302,202
57	Prior Period Change for Repairs Tax Deduct & Bonus Depreciation (FY 08 - 14) (e)					(\$73,471)	\$2,397					
58	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	\$1,302,202
59	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
60	Incremental Annual Rate Adjustment	\$147,438	\$62,771	\$143,205	\$86,545	(\$20,856)	\$125,829	\$37,374	\$253,423	\$180,132	\$120,019	\$166,322
61												
62	Imputed Capital Structure (c)											
63		Ratio	Rate	Weighted Rate	Pre Tax							
64	Long Term Debt	50.00%	7.54%	3.77%	3.77%							
65	Common Equity	50.00%	9.67%	4.84%	8.14%							
66												
67		100.00%		8.61%	11.91%							
68												
69	Imputed Capital Structure (d)											
70		Ratio	Rate	Weighted Rate	Pre Tax							
71	Long Term Debt	45.00%	5.95%	2.68%	2.68%							
72	Common Equity	55.00%	9.55%	5.25%	8.68%							
73												
74		100.00%		7.93%	11.36%							
75												
76	Imputed Capital Structure (e)											
77		Ratio	Rate	Weighted Rate	Pre Tax							
78	Long Term Debt	50.00%	4.57%	2.29%	2.29%							
79	Common Equity	50.00%	9.40%	4.70%	7.76%							
80												
81		100.00%		6.99%	10.04%							

(a) Actual Calendar Year Composite Depreciation rate for distribution property.
(b) Actual Calendar Year ratio of municipal tax expense to net plant in service, reference Schedule DBS-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 2017.

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
1 <u>Capital Repairs Deduction</u>											
2 Plant Additions	\$950,000										
3 Capital Repairs Deduction Rate	32.74%										
4 Capital Repairs Deduction	\$311,030										
5											
6 <u>Bonus Depreciation</u>											
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 <u>Remaining Tax Depreciation (Federal)</u>											
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
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%
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
30											
31 <u>Remaining Tax Depreciation (State)</u>											
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
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%
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
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
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

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
1 <u>Capital Repairs Deduction</u>										
2 Plant Additions	\$500,000									
3 Capital Repairs Deduction Rate	32.74%									
4 Capital Repairs Deduction	\$163,700									
5										
6 <u>Bonus Depreciation</u>										
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 <u>Remaining Tax Depreciation (Federal)</u>										
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
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%
24 Remaining Tax Depreciation	\$6,306	\$12,139	\$11,227	\$10,387	\$9,606	\$4,999	\$6,665	\$8,219	\$7,503	\$7,501
25										
26 <u>Remaining Tax Depreciation (State)</u>										
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
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%
31 Remaining Tax Depreciation	\$12,611	\$24,277	\$22,455	\$20,773	\$19,213	\$9,998	\$13,330	\$16,438	\$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
34 State Tax Depreciation	\$176,311	\$24,277	\$22,455	\$20,773	\$19,213	\$9,998	\$13,330	\$16,438	\$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
1 <u>Capital Repairs Deduction</u>									
2 Plant Additions	\$876,243								
3 Capital Repairs Deduction Rate	22.64%								
4 Capital Repairs Deduction	\$198,381								
5									
6 <u>Bonus Depreciation</u>									
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 <u>Remaining Tax Depreciation (Federal)</u>									
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
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%
24 Remaining Tax Depreciation	\$12,710	\$24,467	\$22,630	\$20,936	\$10,892	\$14,522	\$17,913	\$16,567	\$15,123
25									
26 <u>Remaining Tax Depreciation (State)</u>									
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
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%
31 Remaining Tax Depreciation	\$25,420	\$48,935	\$45,261	\$41,872	\$21,784	\$29,045	\$35,825	\$33,134	\$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
34 State Tax Depreciation	\$223,801	\$48,935	\$45,261	\$41,872	\$21,784	\$29,045	\$35,825	\$33,134	\$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

	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(d)</u>	<u>(e)</u>	<u>(f)</u>	<u>(g)</u>	<u>(h)</u>
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>CYS2013</u>	<u>CY2014</u>	<u>CY2015</u>	<u>CY2016</u>	<u>CY2017</u>
1 <u>Capital Repairs Deduction</u>								
2 Plant Additions	\$610,835							
3 Capital Repairs Deduction Rate	30.03%							
4 Capital Repairs Deduction	<u>\$183,434</u>							
5								
6 <u>Bonus Depreciation</u>								
7 Plant Additions	\$610,835							
8 Less Capital Repairs Deduction	<u>\$183,434</u>							
9 Plant Additions Net of Capital Repairs Deduction	<u>\$427,401</u>							
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	<u>\$268,322</u>							
13 Bonus Depreciation rate April 2010- September 2010	50%							
14 Bonus Depreciation for April 2010 - September 2010	<u>\$134,161</u>							
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	<u>\$159,079</u>							
18 Bonus Depreciation rate October 2010 - March 2011	100%							
19 Bonus Depreciation for October 2010 - March 2011	<u>\$159,079</u>							
20								
21 Bonus Depreciation	\$293,240							
22								
23 <u>Remaining Tax Depreciation (Federal)</u>								
24 Plant Additions	\$610,835							
25 Less Capital Repairs Deduction	\$183,434							
26 Less Bonus Depreciation	<u>\$293,240</u>							
27 Additions Subject to 20 YR MACRS Tax Depreciation	<u>\$134,161</u>	\$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%
29 Remaining Tax Depreciation	<u>\$5,031</u>	\$9,685	\$8,958	\$4,662	\$6,215	\$7,665	\$7,090	\$6,558
30								
31 <u>Remaining Tax Depreciation (State)</u>								
32 Plant Additions	\$610,835							
33 Less Capital Repairs Deduction	<u>\$183,434</u>							
34 Additions Subject to 20 YR MACRS Tax Depreciation	<u>\$427,401</u>	\$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%
36 Remaining Tax Depreciation	<u>\$16,028</u>	\$30,854	\$28,538	\$14,850	\$19,800	\$24,417	\$22,588	\$20,891
37								
38 Federal Tax Depreciation	<u>\$481,705</u>	\$9,685	\$8,958	\$4,662	\$6,215	\$7,665	\$7,090	\$6,558
39 State Tax Depreciation	<u>\$199,462</u>	\$30,854	\$28,538	\$14,850	\$19,800	\$24,417	\$22,588	\$20,891

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 2001 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:

<u>Period</u>	<u>Rate</u>
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
1 <u>Capital Repairs Deduction</u>							
2 Plant Additions	\$398,239						
3 Capital Repairs Deduction Rate	31.00%						
4 Capital Repairs Deduction	\$123,454						
5							
6 <u>Bonus Depreciation</u>							
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 <u>Remaining Tax Depreciation (Federal)</u>							
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
28 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	5.008%	6.677%	6.177%	5.713%	5.285%
29 Remaining Tax Depreciation	\$1,542	\$2,968	\$1,544	\$2,059	\$2,539	\$2,349	\$2,173
30							
31 <u>Remaining Tax Depreciation (State)</u>							
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
35 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	5.008%	6.677%	6.177%	5.713%	5.285%
36 Remaining Tax Depreciation	\$10,304	\$19,837	\$10,320	\$13,761	\$16,973	\$15,698	\$14,522
37							
38 Federal Tax Depreciation	\$358,673	\$2,968	\$1,544	\$2,059	\$2,539	\$2,349	\$2,173
39 State Tax Depreciation	\$133,758	\$19,837	\$10,320	\$13,761	\$16,973	\$15,698	\$14,522
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
1 <u>Capital Repairs Deduction</u>						
2 Plant Additions	\$545,916					
3 Capital Repairs Deduction Rate	31.00%					
4 Capital Repairs Deduction	\$169,234					
5						
6 <u>Bonus Depreciation</u>						
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 <u>Remaining Tax Depreciation (Federal)</u>						
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
28 20 YR MACRS Tax Depreciation Rates	3.750%	5.414%	7.219%	6.677%	6.177%	5.713%
29 Remaining Tax Depreciation	\$8,242	\$11,900	\$15,867	\$14,676	\$13,577	\$12,557
30						
31 <u>Remaining Tax Depreciation (State)</u>						
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
35 20 YR MACRS Tax Depreciation Rates	3.750%	5.414%	7.219%	6.677%	6.177%	5.713%
36 Remaining Tax Depreciation	\$14,126	\$20,395	\$27,193	\$25,151	\$23,268	\$21,520
37						
38 Federal Tax Depreciation	\$334,364	\$11,900	\$15,867	\$14,676	\$13,577	\$12,557
39 State Tax Depreciation	\$183,360	\$20,395	\$27,193	\$25,151	\$23,268	\$21,520
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**

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

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

<u>Period</u>	<u>Rate</u>
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
1 <u>Capital Repairs Deduction</u>				
2 Plant Additions	\$2,201,899			
3 Capital Repairs Deduction Rate	0.00%			
4 Capital Repairs Deduction	\$0			
5				
6 <u>Bonus Depreciation</u>				
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 <u>Remaining Tax Depreciation (Federal)</u>				
19 Plant Additions	\$2,201,899	\$2,201,899	\$2,201,899	\$2,201,899
20 Less Capital Repairs Deduction	\$0	\$0	\$0	\$0
21 Less Bonus Depreciation	\$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
23 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%
24 Remaining Tax Depreciation	\$41,286	\$79,478	\$73,510	\$68,006
25				
26 <u>Remaining Tax Depreciation (State)</u>				
27 Plant Additions	\$2,201,899	\$2,201,899	\$2,201,899	\$2,201,899
28 Less Capital Repairs Deduction	\$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
30 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%	6.177%
31 Remaining Tax Depreciation	\$82,571	\$158,955	\$147,021	\$136,011
32				
33 Federal Tax Depreciation	\$1,142,236	\$79,478	\$73,510	\$68,006
34 State Tax Depreciation	\$82,571	\$158,955	\$147,021	\$136,011

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

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**

	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>
	<u>CY 2015</u>	<u>CY 2016</u>	<u>CY 2017</u>
1 <u>Capital Repairs Deduction</u>			
2 Plant Additions	\$1,321,456		
3 Capital Repairs Deduction Rate	0.00%		
4 Capital Repairs Deduction	<u>\$0</u>		
5			
6 <u>Bonus Depreciation</u>			
7 Plant Additions	\$1,321,456		
8 Less Capital Repairs Deduction	<u>\$0</u>		
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	<u>\$1,321,456</u>		
13 Bonus Depreciation rate	50%		
14 Bonus Depreciation rate	<u>\$660,728</u>		
15			
16 Bonus Depreciation	\$660,728		
17			
18 <u>Remaining Tax Depreciation (Federal)</u>			
19 Plant Additions	\$1,321,456	\$1,321,456	\$1,321,456
20 Less Capital Repairs Deduction	\$0	\$0	\$0
21 Less Bonus Depreciation	<u>\$660,728</u>	<u>\$660,728</u>	<u>\$660,728</u>
22 Additions Subject to 20 YR MACRS Tax Depreciation	\$660,728	\$660,728	\$660,728
23 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%
24 Remaining Tax Depreciation	<u>\$24,777</u>	<u>\$47,698</u>	<u>\$44,117</u>
25			
26 <u>Remaining Tax Depreciation (State)</u>			
27 Plant Additions	\$1,321,456	\$1,321,456	\$1,321,456
28 Less Capital Repairs Deduction	\$0	\$0	\$0
29 Additions Subject to 20 YR MACRS Tax Depreciation	<u>\$1,321,456</u>	<u>\$1,321,456</u>	<u>\$1,321,456</u>
30 20 YR MACRS Tax Depreciation Rates	3.750%	7.219%	6.677%
31 Remaining Tax Depreciation	<u>\$49,555</u>	<u>\$95,396</u>	<u>\$88,234</u>
32			
33 Federal Tax Depreciation	<u>\$685,505</u>	<u>\$47,698</u>	<u>\$44,117</u>
34 State Tax Depreciation	<u>\$49,555</u>	<u>\$95,396</u>	<u>\$88,234</u>

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

<u>Period</u>	<u>Rate</u>
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

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

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

<u>Period</u>	<u>Rate</u>
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
REP/VMP Revenue Requirement
Calculation of REP Tax Depreciation 2017 - Per Tax Return
Using Capital Repairs Tax Return Rate

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

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

<u>Period</u>	<u>Rate</u>
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
Procedure for Adjusting Distribution Rates for Capital Investment Allowance
Calculation of Percentage Adjustment to Distribution Rates
Based on Rates Effective May 1, 2017

Rate Class	Distribution Rate Component	Current	Forecasted	Forecasted
		Base Distribution Rates (a)	Units (b)	Revenues (c)
D	Customer Charge	\$ 14.54	416,119	\$ 6,050,370
	1st 250 kWh	\$ 0.04065	92,336,979	\$ 3,753,498
	Excess 250 kWh	\$ 0.05277	170,922,958	\$ 9,019,604
	Off Peak kWh	\$ 0.04189	1,461,783	\$ 61,234
	Farm kWh	\$ 0.04580	994,916	\$ 45,567
	D-6 kWh	\$ 0.04266	794,325	\$ 33,886
D-10	Customer Charge	\$ 14.54	5,584	\$ 974,296
	On Peak kWh	\$ 0.10426	1,871,678	\$ 195,141
	Off Peak kWh	\$ 0.00145	3,509,482	\$ 5,089
G-1	Customer Charge	\$ 378.73	1,711	\$ 648,007
	Demand Charge	\$ 8.07	981,764	\$ 7,922,835
	On Peak kWh	\$ 0.00520	166,582,875	\$ 866,231
	Off Peak kWh	\$ 0.00156	206,672,730	\$ 322,409
	Credit for High Voltage Delivery > 2.4 kv	(0.44)	354,650	\$ (119,955)
G-2	Customer Charge	\$ 63.15	10,735	\$ 677,915
	Demand Charge	\$ 8.12	522,041	\$ 4,238,973
	All kWh	\$ 0.00204	152,593,832	\$ 311,291
	Credit for High Voltage Delivery > 2.4 kv	\$ (0.44)	1,121	
G-3	Customer Charge	\$ 14.54	64,434	\$ 936,870
	All kWh	\$ 0.04607	90,323,284	\$ 4,161,194
	Minimum Charge > 25 kVA	\$ 2.59		
M	Luminaire Charge			\$ 998,836
	All kWh	\$ -	4,436,549	\$ -
T	Customer Charge	\$ 14.54	11,004	\$ 159,998
	All kWh	\$ 0.04008	13,721,429	\$ 549,955
V	Minimum Charge	\$ 14.54	169	\$ 2,457
	All kWh	\$ 0.04736	338,541	\$ 16,033
Total Forecasted Revenues				\$ 41,831,737

(a) Approved rates effective May 1, 2017

(b) Company Forecast

(c) Column (a) x column (b)

Luminaire forecasted revenues determined by attachment 5 of Settlement Agreement in Docket DE 16-383 line 32 on

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, 2018

(1) Increase in Annual Revenue Requirement	\$166,322
(2) Forecasted Base Distribution Revenues	\$41,831,737
(3) Percentage of Adjustment to Distribution Rates	0.40%

(1) DBS-1 Page 3 Line 60

(2) Forecasted Base Distribution Revenues for the period of May 1, 2018 - April 30, 2019

(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, 2018

(1)	O&M Expense Above Base O&M Expense	\$552,414
(2)	Final Balance of Reconciliation of CY 2016 Incremental O&M Expense Above Base O&M Expense	<u>(\$9,925)</u>
(3)	Unbilled accrual	<u>(\$1,344)</u>
(4)	Reliability Enhancement Program and Vegetation Management Plan Expense	<u>\$541,144</u>
(5)	Estimated kWh deliveries May 1, 2018 - April 30, 2019	906,561,360
(6)	Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor	\$0.00059

- (1) Schedule DBS-1, Page 2
- (2) Schedule DBS-3, Page 1, Line 13
- (3) Revenue for 15 days in April not yet billed at time of filing
- (4) Line (1) + Line (2) + Line (3)
- (5) Per Company forecast
- (6) Line (4) ÷ Line (5), truncated after 5 decimal places

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, 2018

Rate Class	Distribution Rate Component	Approved May 1, 2017 Base Distribution Charges (a)	Proposed May 1, 2018 Distribution % Increase/ % (Decrease) (b)	Proposed May 1, 2018 Base Distribution Charges (c)	Proposed May 1, 2018 REP/VMP O&M Adjustment Factor (d)	Proposed May 1, 2018 Total Distribution Charges (e)
D	Customer Charge	\$14.54	0.40%	\$14.59		\$14.59
	1st 250 kWh	\$0.04065	0.40%	\$0.04081	\$0.00059	\$0.04140
	Excess 250 kWh	\$0.05277	0.40%	\$0.05298	\$0.00059	\$0.05357
	Off Peak kWh	\$0.04189	0.40%	\$0.04205	\$0.00059	\$0.04264
	Farm kWh	\$0.04580	0.40%	\$0.04598	\$0.00059	\$0.04657
	D-6 kWh	\$0.04266	0.40%	\$0.04283	\$0.00059	\$0.04342
D-10	Customer Charge	\$14.54	0.40%	\$14.59		\$14.59
	On Peak kWh	\$0.10426	0.40%	\$0.10467	\$0.00059	\$0.10526
	Off Peak kWh	\$0.00145	0.40%	\$0.00145	\$0.00059	\$0.00204
G-1	Customer Charge	\$378.73	0.40%	\$380.24		\$380.24
	Demand Charge	\$8.07	0.40%	\$8.10		\$8.10
	On Peak kWh	\$0.00520	0.40%	\$0.00522	\$0.00059	\$0.00581
	Off Peak kWh	\$0.00156	0.40%	\$0.00156	\$0.00059	\$0.00215
	Credit for High Voltage Delivery > 2.4 ft	(\$0.44)	0.40%	(\$0.44)		(\$0.44)
G-2	Customer Charge	\$63.15	0.40%	\$63.40		\$63.40
	Demand Charge	\$8.12	0.40%	\$8.15		\$8.15
	All kWh	\$0.00204	0.40%	\$0.00204	\$0.00059	\$0.00263
	Credit for High Voltage Delivery > 2.4 ft	(\$0.44)	0.40%	(\$0.44)		(\$0.44)
G-3	Customer Charge	\$14.54	0.40%	\$14.59		\$14.59
	All kWh	\$0.04607	0.40%	\$0.04625	\$0.00059	\$0.04684
	Minimum Charge > 25 kVA	\$2.58	0.40%	\$2.59		\$2.59
M	Luminaire Monthly Charge					
	<u>Description</u>					
	LUM HPS RWY 50W	\$7.64	0.40%	\$7.67		\$7.67
	LUM HPS RWY 100W	\$9.27	0.40%	\$9.30		\$9.30
	LUM HPS RWY 250W	\$16.28	0.40%	\$16.34		\$16.34
	LUM HPS RWY 400W	\$21.21	0.40%	\$21.29		\$21.29
	LUM HPS POST 100W	\$10.67	0.40%	\$10.71		\$10.71
	LUM HPS FLD 250W	\$16.42	0.40%	\$16.48		\$16.48
	LUM HPS FLD 400W	\$22.67	0.40%	\$22.76		\$22.76
	LUM INC RWY 103W	\$10.21	0.40%	\$10.25		\$10.25
	LUM MV RWY 100W	\$7.38	0.40%	\$7.40		\$7.40
	LUM MV RWY 175W	\$8.99	0.40%	\$9.02		\$9.02
	LUM MV RWY 400W	\$16.99	0.40%	\$17.05		\$17.05
	LUM MV RWY 1000W	\$32.23	0.40%	\$32.35		\$32.35
	LUM MV FLD 400W	\$18.78	0.40%	\$18.85		\$18.85
	LUM MV FLD 1000W	\$32.44	0.40%	\$32.56		\$32.56
	Pole and Accessory Charge					
	<u>Description</u>					
	Pole -Wood	\$9.01	0.40%	\$9.04		\$9.04
	Pole Fiber PT<25FT	\$9.33	0.40%	\$9.36		\$9.36
	Pole Fiber RWT <25FT	\$15.83	0.40%	\$15.89		\$15.89
	Pole Fiber RWT =>25	\$26.44	0.40%	\$26.54		\$26.54
	Pole Metal Embedded	\$18.86	0.40%	\$18.93		\$18.93
	Pole Metal	\$22.74	0.40%	\$22.83		\$22.83
	All kWh	\$0.00000	0.40%	\$0.00000	\$0.00059	\$0.00059
T	Customer Charge	\$14.54	0.40%	\$14.59		\$14.59
	All kWh	\$0.04008	0.40%	\$0.04024	\$0.00059	\$0.04083
V	Minimum Charge	\$14.54	0.40%	\$14.59		\$14.59
	All kWh	\$0.04736	0.40%	\$0.04754	\$0.00059	\$0.04813

(a) Per NHPUC Order No. 26,009 in Docket No. DE 17-043
(b) Schedule DBS-2, Page 2, Line 3
(c) Column (a) x (1+Column (b))
(d) Schedule DBS-2, Page 3, Line 6
(e) Column (c) + Column (d)

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 18-xxx
Schedule DBS-3
Page 1 of 1

Liberty Utilities (Granite State Electric) d/b/a Liberty Utilities
Reconciliation of CY 2017 O&M Expense

	Beginning Balance With Interest (a)	Delivery Sales (kWh) (b)	(Credit)/ Charge (c)	Ending Balance (d)	Balance Subject to Interest (e)	Effective Interest Rate (f)	Interest (g)	Cumulative Interest (h)	
1	May-17	(\$44,620)	68,517,674	(\$2,741)	(\$41,879)	(\$43,250)	4.00%	(\$142)	(\$142)
2	June-17	(\$42,021)	73,814,168	(\$2,953)	(\$39,068)	(\$40,545)	4.00%	(\$133)	(\$274)
3	July-17	(\$39,201)	83,693,925	(\$3,348)	(\$35,853)	(\$37,527)	4.25%	(\$130)	(\$405)
4	August-17	(\$35,984)	79,905,235	(\$3,196)	(\$32,787)	(\$34,386)	4.25%	(\$119)	(\$524)
5	September-17	(\$32,907)	76,767,407	(\$3,071)	(\$29,836)	(\$31,372)	4.25%	(\$109)	(\$633)
6	October-17	(\$29,945)	73,661,532	(\$2,946)	(\$26,999)	(\$28,472)	4.25%	(\$99)	(\$732)
7	November-17	(\$27,098)	66,929,888	(\$2,677)	(\$24,421)	(\$25,759)	4.25%	(\$90)	(\$822)
8	December-17	(\$24,510)	75,597,031	(\$3,024)	(\$21,486)	(\$22,998)	4.25%	(\$80)	(\$902)
9	January-18	(\$21,566)	82,891,622	(\$3,316)	(\$18,250)	(\$19,908)	4.50%	(\$73)	(\$975)
10	February-18	(\$18,324)	74,290,043	(\$2,972)	(\$15,352)	(\$16,838)	4.50%	(\$62)	(\$1,037)
* 11	March-18	(\$15,414)	72,312,341	(\$2,892)	(\$12,521)	(\$13,968)	4.50%	(\$51)	(\$1,088)
* 12	April-18	(\$12,573)	67,220,330	(\$2,689)	(\$9,884)	(\$11,228)	4.50%	(\$41)	(\$1,129)
13		(Over)/Under Recovery:		(\$9,925)					

- (a) Schedule HMT-2, Page 3, Line 3 in Docket DE 17-043
- (b) Company Billing Reports, Line 11 & 12 estimated
- (c) Column (b) x rate
- (d) Column (a) - Column (c)
- (e) Average of Column (a) and Column (d)
- (f) Interest rate on customer deposits
- (g) Column (e) x [(1 + Column (f)) ^ (1 ÷ 12) - 1]
- (h) Prior month Column (h) + Current month Column (g)
- * Estimate

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

Usage	650	kWh	Current Rates	May 1, 2018 Proposed Rates	Current Bill	May 1, 2018 Proposed Bill
Customer Charge			\$14.54	\$14.59	\$14.54	\$14.59
Distribution Charge						
1st 250 kWh			\$0.04061	\$0.04140	\$10.15	\$10.35
excess of 250 kWh			\$0.05273	\$0.05357	\$21.09	\$21.43
Storm Recovery Adjustment			\$0.00000	\$0.00000	\$0.00	\$0.00
Transmission Charge			\$0.02011	\$0.02011	\$13.07	\$13.07
Stranded Cost Charge			\$0.00049	\$0.00049	\$0.32	\$0.32
System Benefits Charge			\$0.00457	\$0.00457	\$2.97	\$2.97
Electricity Consumption Tax			\$0.00055	\$0.00055	<u>\$0.36</u>	<u>\$0.36</u>
Subtotal Retail Delivery Services					\$62.50	\$63.09
Energy Service Charge			\$0.08931	\$0.08931	<u>\$58.05</u>	<u>\$58.05</u>
				Total Bill	\$120.55	\$121.14
						\$0.58
						0.48%

Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Docket No DE 18-xxx
Schedule DBS-5
Page 1 of 1

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

	12/31/2015	12/31/2016
1 Plant in Service, per Form 1, Page 200, Line 3 (+) Line 6	197,251	215,486
2 Depreciation Reserve, per Form 1, Page 200, Line 12 (+) Line 18	(67,534)	(72,886)
3 Net Plant	129,718	142,600
4 Average Net Plant		
5 Plant in Service	178,829	197,157
6 Depreciation Reserve	(66,168)	(69,527)
7 Net Plant	112,661	127,630
8 Municipal Taxes, Form 1, Page 262, Line 1	3,540	4,682
9 % Municipal Taxes to Net Plant	3.14%	3.67%

**Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities
Book Depreciation Calculation Using 2016 FERC Form 1 Data Filed May 18, 2017**

	Depreciation Expense		Depreciable Plant Balances		Average	Depreciation
	12/31/2015	12/31/2016	12/31/2015	12/31/2016	Depreciable Plant	Rate
					12/31/2015	12/31/2016
1 Distribution	4,631,462	4,920,000	169,913,794	186,221,800	178,067,797	2.76%
2 General	491,007	607,870	15,756,662	16,449,769	16,103,216	3.77%
3 Total - Granite	<u>5,122,469</u>	<u>5,527,870</u>	<u>185,670,456</u>	<u>202,671,569</u>	194,171,013	2.85%
4 Depreciation Expense per Form 1:						
5 FERC Form 1, Page 114						
6 Depreciation Expense (403) Line 6	5,122,469	5,527,870				
7 Depreciation Expense for ARO (403.1) Line 7	-	-				
8 Total per Form 1, Page 114	<u>5,122,469</u>	<u>5,527,870</u>				
9 FERC Form 1, Page 336						
10 Distribution (incl ARO) Line 8	4,631,462	4,920,000				
11 General Line 10	491,007	607,870				
12 Total per Form 1, Page 336	<u>5,122,469</u>	<u>5,527,870</u>				
13 Depreciable Plant Balances per Form 1:						
14 FERC Form 1, Page 204-207						
15 Distribution Plant Page 207 Line 75	171,576,043	187,908,011				
16 Land & Land Rights Page 207 Line 60	1,662,249	1,686,211				
17 Total	<u>169,913,794</u>	<u>186,221,800</u>				
18 General Plant Page 207 Line 99	17,377,034	18,070,141				
19 Land & Land Rights Page 207 Line 86	1,620,372	1,620,372				
20 Total	<u>15,756,662</u>	<u>16,449,769</u>				
21 Total, excluding Land & Land Rights	<u>185,670,456</u>	<u>202,671,569</u>				