#### Reliability Enhancement Program and Vegetation Management Plans

#### (A) REP and VMP Commitment

For fiscal years 2012 and 2013, Granite State will implement a Reliability Enhancement Program Plan ("REP") and a Vegetation Management Plan ("VMP") (collectively, "Plans"), as defined below. For purposes of this agreement, a fiscal year is defined as the 12 month period from April 1 through March 31 ("FY"). The purpose of the REP and VMP Plans is to improve Granite State's reliability performance in order to bring it back to the historical performance levels that existed prior to 2005. Granite State commits to developing 2012 and 2013 REP and VMP Plans for review by Staff with the objective of achieving this purpose.

#### (B) Definitions of REP and VMP Activities

- (1) Activities included in the REP are the following:
  - (a) "Feeder Hardening" Activities: The term "Feeder Hardening" is used by Granite State to refer to a targeted program to improve the performance of its worst performing feeders through remediation measures. Remediation measures may include equipment upgrades, such as replacement of fuse cutouts, crossarms, poles, and transformers; installation of reclosers; lightning protection with bonding, grounding, and lightning arresters installations; and installation of animal guards. The best feeders to "harden" are identified by reviewing cost/benefit and performance data. Feeders are inspected and design packages are created for the required construction.

- (b) "Augmented tree trimming and clearing": The term "Augmented tree trimming and clearing" is used by Granite State to refer to the implementation of hazard tree removal into the cycle tree trimming program beyond what is normally included in tree trimming and improving circuit performance related to overhead vegetation. The enhanced specification is implemented to reduce overhead interruption risks by removing dead, dying, and damaged limbs from above the conductor, as well as increasing the overhead clearances to fifteen feet outside of residential areas. The augmented plan integrates the hazard tree removal program into the routine scheduled trimming, creating a more aggressive approach to removing tree hazards and overhang to improve performance.
- (c) "Asset Replacement": The asset replacement component of the REP targets potted porcelain cutouts, oil fuse cutouts, distribution transformers, underground cable, and poles for replacement. In addition, it includes adding new line reclosers and reconductoring selected feeders with spacer cable.
- (d) "Inspection and Maintenance": The inspection and maintenance component of the REP involves a comprehensive overhead assessment of Granite State's equipment and feeders prior to performance of the REP work.
- (2) Activities and expenses included in the VMP are set forth below:
  - (a) Spot Tree Trimming (DM1010);

- (b) Trouble & Restoration Maintenance;
- (c) Planned Cycle Trimming;
- (d) Cycle Trimming Police Details Expenses;
- (e) Tree Hazard Removal;
- (f) Interim Trimming;
- (g) Tree Planting;
- (h) Subtransmission Right of Way Clearing; and
- (i) Other Police Detail Expenses.

#### (C) REP and VMP for FY 2012 through 2013

Beginning with FY 2012, (before the beginning of each fiscal year and no later than February 15) Granite State will provide its REP and VMP Plans to Staff for the following fiscal year for Staff's review. Granite State will meet with Staff in technical sessions to discuss the Plans, obtain comments, and answer any questions regarding the plan to be implemented for the subsequent fiscal year. After review by Staff, Granite State will take all reasonable steps it deems appropriate to carry out and implement the Plans, taking into account the comments of Staff. Review by Staff of the Plans does not relieve Granite State 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 Plans, nor does it bind Staff to a particular position regarding the adequacy and/or effectiveness of the Plans.

The REP and VMP Plans shall provide a description of the activities along with targeted expenditures and investments of the proposed Plans to be implemented during the following fiscal year. The Plans 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 Plans. The O&M budget will be approximately equal to \$1,360,000 (the "Base Plan O&M") for the FY ("Base Plan O&M Budget"). Granite State may also provide for consideration alternative Plans with O&M budgets that exceed the O&M Base Amount for the fiscal year.

Granite State 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 D below. Some categories of activities listed in the VMP in section (B)(2) include some of the activities described in the "augmented tree trimming and clearing" component of the REP described in section (B)(1). 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.

#### (D) REP/VMP Adjustment Provision

- (1) During each fiscal year, Granite State shall track all O&M expenses incurred in implementing the components of the REP and VMP Plans. By May 15 of each year, Granite State will make a reconciliation filing with the Commission. To the extent that Granite State, in implementing the Plans, 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.
- (2) To the extent the Plan submitted for review prior to the fiscal year includes a budget higher than the Base Plan O&M Budget and Granite State 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 July 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.

#### (E) REP Capital Investment Allowance

Granite State shall track all capital investments made in accordance with the REP for fiscal year 2012 and 2013. At the same time that Granite State 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 fiscal year. The report shall include a calculation of the revenue requirement for adding these additional capital investments into rate base, using Granite State's current Commission approved capital structure and debt and equity rates as illustrated on the accompanying Attachment 1. Provided that the investments were made in accordance with the REP, Granite State 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 July 1, at the same time as any REP/VMP Adjustments are implemented for the preceding fiscal year as discussed in section (D) above.

## (F) Procedure for Adjusting Base Distribution Rates for the REP Capital Investment Allowance

The base distribution rate shall be increased by: multiplying the base distribution rate by the result of: dividing the capital investment by the forecasted base distribution revenue and converting that result to a percentage. An illustrate example of this calculation is attached as Attachment 2 to this Exhibit.

#### (G) Annual Report, Plan Deviations, and SAIDI/SAIFI Results

At the same time Granite State makes its reconciliation and rate adjustment filing (by May 15 of each year), Granite State will file an annual report on the prior fiscal 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, Granite State would include an explanation of any deviations in the report. For cost recovery purposes, Granite State 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, Granite State will report its SAIDI and SAIFI results for the prior calendar year. The report shall include parallel reporting using the criteria for major storm exclusions set forth by the Commission and IEEE Standard 1366. 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).

Settlement Agreement - Attachment K National Grid/Liberty Energy DG 11-040 Page 7 of 11

Granite State Electric

# Granite State Electric Company Docket No. DG 11-040 Illustrative Incremental REP Program Illustrative Annual Rate Changes Attachment 1 Page 1 of 3

		7/1/2012	7/1/2013
	<b>Annual Incremental Rate Adjustments</b>		
1	REP O&M Program	0	0
2	<u> </u>		
3	REP Capital Program	80,504	78,688
4			
5	Total	80,504	78,688

Line 1 From Page 2 of 3 line 16

Line 3 From Page 3 of 3 Line 40

### Granite State Electric Company

Page 8 of 11 Docket No. DG 11-040

# Illustrative Incremental VMP and REP O&M Program Illustrative Computation of Annual Revenue Requirement

Exhibit GSE-Attachment 1

Page 2 of 3

		FY	FY
		2012	2013
	Incremental VMP O&M Spend		
1	VMP Program Budget	1,160,000	1,160,000
2	VMP Base Spending Level	1,160,000	1,160,000
3	Incremental Amount	0	0
4			_
5	<b>Incremental REP O&amp;M Spend</b>		
6	REP O&M Program Budget	200,000	200,000
7	REP O&M Base Spending Level	200,000	200,000
8	Incremental Amount	0	0
9			_
10	Total Revenue Requirement	0	0
11			
12	Annual Rate Adjustment	<b>7/1/2012</b>	7/1/2013
13	· · · · · · · · · · · · · · · · · · ·		
14	Current Year Rate Adjustment	0	0
15	Expiration of Prior Year Rate Adj.	0	0
16	Incremental Rate Adjustment	0	0

Line 1 Illustrative Targeted VMP program spend. To be replaced with Actual amounts spent.

Base amount of VMP program spend embedded in base rates based on CY 2006 Vegetation Management

- Line 2 spending.
- Line 3 Line 1 minus Line 2
- Line 6 Illustrative Targeted REP O&M program spend. To be replaced with actual REP O&M spending.
- Line 7 Base amount of REP O&M spend embedded in base rates based on CY 2006 REP O&M amount.
- Line 8 Line 6 minus Line 7
- Line 10 Line 3 plus Line 8
- Line 14 Prior Column Line 10
- Line 15 Minus prior year Line 14
- Line 14 Line 14 plus Line 15

#### **Granite State Electric Company Illustrative Incremental REP Capital Program Illustrative Computation of Revenue Requirement**

Granite State Electric Docket No. DG 11-040 Exhibit GSE-\_ Attachment 1 Page 3 of 3

		FY	FY		
		2012	2013		
	<b>Deferred Tax Calculation</b>				
1	REP Program Annual Spend	500,000	500,000		
2	Cumulative REP Program Spend	2,950,000	3,450,000		
3					
4	Book Depreciation Rate (a)	3.79%	3.79%		
5	20 YR MACRS Tax Depr. Rates	5.71%	5.71%		
6	Vintage Year Tax Depreciation:				
7	Year 1 Spend	54,274	54,274		
8	Year 2 Spend	30,885	28,565		
9	Year 3 Spend	33,385	30,885		
10	Year 4 Spend	36,095	33,385		
11	Year 5 Spend	18,750	36,095		
12	Tear 5 Spend	10,750	30,073		
13	Annual Tax Depreciation	173,389	183,204		
14	Cumulative Tax Depreciation				
15	Cumulative Tax Depreciation	561,532	744,736		
16	Pools Deprociation	111 005	120 755		
	Book Depreciation	111,805	130,755		
17	Cumulative Book Depreciation	369,525	500,280		
18	D. 1/m. m:	100.007	244.456		
19	Book/Tax Timer	192,007	244,456		
20 21	Effective Tax Rate	40.53%	40.53%		
22	Deferred Tax Reserve	77,811	99,066		
23					
24	Rate Base Calculation				
25	Plant In Service	2,950,000	3,450,000		
26	Accum Depr	(369,525)	(500,280)		
27	Def Tax Reserve	(77,811)	(99,066)		
28	Year End Rate Base	2,502,664	2,850,654		
29	_				
30	Revenue Requirement Calculation				
31	Year End Rate Base	2,502,664	2,850,654		
32	Pre-Tax ROR	11.91%	11.91%		
33	Return and Taxes	298,014	339,452		
34	Book Depreciation	111,805	130,755		
35	Property Taxes (b) 3.66%	107,970	126,270		
36	Annual Revenue Requirement	517,789	596,477		
37	4	, , , , , ,	,,,,,,,		
38	Annual Rate Adjustment	7/1/2012	7/1/2013		
39					
40	Incremental Annual Rate Adjustment	80,504	78.688		
41	=	,	,		
42					
43	Imputed Capital Structure		,	Weighted	
44	<u> </u>	Ratio	Rate	Rate	Pre Tax
45	Long Term Debt (c)	50.00%	7.54%	3.77%	3.77
46	5	20.0070	7.5.70	2.,,,0	5.,,
47	Common Equity	50.00%	9.67%	4.84%	8.149
48					
49		<u>100.00%</u>	=	8.61%	11.919

- (a) Actual 2006 Composite Depreciation rate for distribution property(b) Actual 2010 ratio of municipal tax expense to net plant in service(c) Actual 2006 LTD Rate

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11-040

Granite State

1-Apr-12

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Attachment 2 Page 1 of 2

#### Granite State

Procedure for Adjusting Distribution Rates for Capital Investment Allowance (Illustrative Only)

Calculation of Percentage Adjustment to Distribution Rates

Rates Effective January 1, 2012

(1)	Increase in Annual Revenue Requirement	\$100,000
(2)	Forecasted Base Distribution Revenue	25,000,000
(3)	Percentage of Adjustment to Distribution Rates	0.40%
(1) (2)	Approved by Commission pursuant to Section (E), Exhibitof the settlement agreement	
(3)	Line (1) ÷ Line (2)	

Settlement Agreement - Attachment K
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Docket No. DG 11-040 0 Attachment 2 Page 2 of 2

Granite State

## Granite State Procedure for Adjusting Distribution Rates for Capital Investment Allowance (Illustrative Only) Calculation of Proposed Distribution Rates Rates Effective January 1, 2012

Rate Class and Distribution Energy Component	Current Base Distribution <u>Charges</u> (a)	Proposed Distribution % Increase (b)	Proposed Base Distribution Charges (c)	Current Business Profits <u>Surcharge</u> (d)	Current Default Service Cost Reclassification Distribution Credit (e)	Proposed Total Distribution <u>Charges</u> (f)
D						
Customer Charge	\$4.37	0.40%	\$4.38			\$4.38
1st 250 kWh	\$0.01606	0.40%	\$0.01612	\$0,00057	(\$0,00017)	\$0.01652
Excess 250 kWh	\$0.04253	0.40%	\$0.04270	\$0.00057	(\$0.00017)	\$0.04310
Off Peak kWh	\$0.01534	0.40%	\$0.01540	\$0,00057	(\$0.00017)	\$0.01580
Farm kWh	\$0.02522	0.40%	\$0.02532	\$0.00057	(\$0.00017)	\$0.02572
D-6 kWh	\$0.01606	0.40%	\$0.01612	\$0,00057	(\$0.00017)	\$0.01652
	4-1-1-1-1		44.44.4		(*******)	******
D-10						
Customer Charge	\$7.50	0.40%	\$7.53			\$7.53
On Peak kWh	\$0.04735	0.40%	\$0.04753	\$0.00057	(\$0.00008)	\$0.04802
Off Peak kWh	(\$0.00034)	0.40%	(\$0.00034)	\$0.00057	(\$0.00008)	\$0.00015
G-1						
Customer Charge	\$93.45	0.40%	\$93.82			\$93.82
Demand Charge	\$4.08	0.40%	\$4.09			\$4.09
On Peak kWh	\$0.00108	0.40%	\$0.00108	\$0.00057	\$0.00000	\$0.00165
Off Peak kWh	(\$0.00026)	0.40%	(\$0.00026)	\$0.00057	\$0.00000	\$0.00031
G-2		0.4007				
Customer Charge	\$25.01	0.40%	\$25.11			\$25.11
Demand Charge	\$4.50	0.40%	\$4.51	60 00057	#0.00000	\$4.51
All kWh	\$0.00005	0.40%	\$0.00005	\$0.00057	\$0.00000	\$0.00062
G-3						
Customer Charge	\$5,53	0.40%	\$5,55			\$5.55
All kWh	\$0.03048	0.40%	\$0.03060	\$0.00057	(\$0.00017)	\$0.03100
All KWII	\$0.03046	0.4076	\$0.03000	30.00037	(\$0.00017)	\$0.03100
M						
All kWh	(\$0.00026)	0.40%	(\$0.00026)	\$0.00057	\$0,00000	\$0.00031
A MARKON MA	(\$0.00020)	0.1070	(\$0.00020)	\$0,00037	\$0.0000	Ψ0.00031
T						
Customer Charge	\$5.65	0.40%	\$5.67			\$5.67
All kWh	\$0.01986	0.40%	\$0.01993	\$0.00057	(\$0.00007)	\$0.02043
					` ′	
V						
Minimum Charge	\$5.90	0.40%	\$5.92			\$5.92
All kWh	\$0.02817	0.40%	\$0.02828	\$0.00057	(\$0.00009)	\$0.02876

<sup>(</sup>a) Per currently effective tariffs

<sup>(</sup>b) Exhibit GSE-\_, Page 1

<sup>(</sup>c) Column (a) x (1+Column (b))

<sup>(</sup>d) Distribution Energy Charges include a Business Profits Tax Surcharge of \$0.00057 per kWh for usage on and after 8/1/01

<sup>(</sup>e) Per Default Service Cost Reclassification Adjustment Provision

<sup>(</sup>f) Column (c) + Column (d) + Column (e)