

Granite State Electric Company d/b/a National Grid
Docket No. DE 08-072
Joint Testimony of C.T. McDonough and P.F. Altenburger

Exhibit 1

Exhibit GSE-8 to Granite State Rate Plan

Exhibit GSE-8

Reliability Enhancement Program

and

Vegetation Management

Reliability Enhancement Program and Vegetation Management Plans

(A) REP and VMP Commitment

For each fiscal year following the effective date of the Rate Plan, the Company 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 the Company’s reliability performance in order to bring the Company back to the historical performance levels that existed prior to 2005, with the goal of meeting those historical performance levels by the end of FY 2013. The Company commits to developing annual 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 the Company to refer to a targeted program to improve the performance of the Company’s 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 the Company 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 the Company's equipment and feeders prior to performance of the REP work.

(2) Activities and expenses included in the VMP are set forth below, with the applicable company charge code in parenthesis:

- (a) Spot Tree Trimming (DM1010);
- (b) Trouble & Restoration Maintenance (DM1210);
- (c) Planned Cycle Trimming (DM1215);
- (d) Cycle Trimming Police Details Expenses (DM1218);
- (e) Tree Hazard Removal (DM1220);
- (f) Interim Trimming (DM1235);
- (g) Tree Planting (DM 1240);
- (h) Subtransmission Right of Way Clearing (DM1250); and
- (i) Other Police Detail Expenses (DO9050).

(C) REP and VMP for Fiscal Year 2008

It is understood that, for FY 2008, the Company has already commenced implementation of the REP and VMP Plans. The Company agrees that it will implement aggressive Plans for FY 2008, with an anticipated budget of \$1,950,000 for operation and maintenance expenses. By May 15, 2008, the Company will make a filing with the

Commission showing actual operating and maintenance (“O&M”) expenses incurred from the REP and VMP Plans’ implementation for FY 2008. To the extent the Company has incurred less than \$1,950,000 of operation and maintenance expenses from implementation of the REP and VMP Plans in FY 2008, the difference will be accounted for and applied to increase the Base Plan O&M amount (as set forth in section (E) below) for the REP and VMP Plans implemented for FY 2009. To the extent the operation and maintenance expenses exceed \$1,950,000, the Company will absorb that cost with no impact to the REP/VMP Adjustment Provision defined below in section (F).

The Company’s REP for FY 2008 also will have capital investments associated with it. The Company will be allowed to make up to \$950,000 of capital investments in its REP plan for FY 2008, the revenue requirement of which will be included in the REP Capital Investment Allowance, as detailed in section (G) below, effective July 1, 2008. It is expected that the Company’s level of investment in FY 2008 will exceed \$500,000.

(D) REP and VMP for FY 2009 through 2013

Beginning with FY 2009, (before the beginning of each fiscal year and no later than February 15) the Company will provide its REP and VMP Plans to Staff for the following fiscal year for Staff’s review. The Company 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.

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 shall also include a description of the extent to which the studies set forth in Section J below were incorporated in the REP and VMP. The Plans will itemize the proposed activities by general category and provide budgets for both operation and maintenance expenses and capital investments expected from implementation of the Plans. The Company will provide an operation and maintenance (“O&M”) budget to Staff that assumes the REP and VMP O&M spending for the fiscal year will be approximately equal to the Base Plan O&M (as defined below in section (E)) for the fiscal year (“Base Plan O&M Budget”). The Company also may provide for consideration alternative Plans with O&M budgets that exceed the O&M Base Amount for the fiscal year.

After review by Staff, the Company will take all reasonable steps it deems appropriate to carry out and implement the Plans, taking into account the comments of Staff. The Company will reconcile actual expenditures and investments with the Plans’ targeted spending levels at the conclusion of the Plans’ period. Review by Staff of the Plans does not relieve the Company 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.

(E) O&M Base Expenses for FY 2009 through 2013

There shall be established for the Rate Plan for FY 2009 through FY 2013 a base O&M expense amount equal to \$1,360,000 that is associated with implementation of the

O&M components of the annual REP and VMP (“Base Plan O&M”). Actual expenses incurred by the Company in implementing the O&M components of the annual REP and VMP shall be reconciled to 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 F 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

(F) REP/VMP Adjustment Provision

(1) During each fiscal year, the Company shall track all O&M expenses incurred in implementing the components of the REP and VMP Plans. By May 15 of each year, the Company will make a reconciliation filing with the Commission. To the extent that the Company, 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.¹

¹ With respect to FY 2008, section (C) above specifies that it will be carried over to the FY 2009 Base Plan O&M Budget.

(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 the Company 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. In lieu of a refund, the Commission (at its discretion) may authorize any credits owed to customers to be carried over to the following year's budget.

(G) REP Capital Investment Allowance

The Company shall track all capital investments made in accordance with the REP for each fiscal year including FY 2008 through 2013. At the same time that the Company makes its reconciliation filing for the REP/VMP Adjustment reconciliation, the Company 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 the imputed capital structure and rates set forth in Section 3.(C) of the Rate Plan, and as illustrated on the accompanying Attachment 1. Provided that the investments were made in accordance with the REP, the Company will

be allowed, subject to Commission approval, a permanent increase in its 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. (The first Capital Investment Allowance would occur on July 1, 2008.)

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

Base distribution rate increases approved pursuant to Section (G) will be implemented in a manner similar to the procedure used to adjust base distribution charges for the Rate Reduction implemented pursuant to Section 1 of the settlement agreement. An illustrative example is provided as Attachment 2 to this Exhibit.

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

The Company will file an annual report on the prior fiscal year's activities at the time it makes its reconciliation and rate adjustment filing described in section (F) above. In implementing the Plans, the circumstances encountered during the year may require reasonable deviations from the original Plans reviewed by Staff. In such cases, the Company would include an explanation of any deviations in the report. For cost recovery purposes, the Company 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, the Company 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 from the IEEE Standard 1366 criteria and the definition of major storm events historically used by the Commission for the Company. The Commission definition 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).

(J) Studies

(1) Within one year of the Commission's approval of the merger, system studies will be completed to determine if additional fuse placement on feeders and taps, additional recloser placement on feeders and taps, and the potential splitting of distribution circuits is warranted. A report shall be generated for each study detailing results, and submitted to Staff.

(2) Within one year after the Commission's approval of the merger, a vegetation management study shall be completed. This study will include, at a minimum, a review of cycle trimming and clearance specifications. The Company plans to employ a consultant to review the entire National Grid vegetation management program, including

New Hampshire specifically. A report shall be generated detailing results and submitted to Staff.

(3) Within one year of the Commission's approval of the merger, transmission outages from 1999 through 2006 will be analyzed separately for the three major work areas for cause to determine if action to improve reliability is required. The study results shall be supplied to Staff in the form of a report detailing the results and actions to be taken.

(4) Within one year of the effective date of the merger, company caused human related outages from 1999 through 2006 will be analyzed separately for the three major work areas for cause to determine if action to improve reliability is required. The study results shall be supplied to Staff in the form of a report detailing the results and actions to be taken.

Granite State Electric Company
Illustrative Incremental REP Program
Illustrative Annual Rate Changes

Granite State Electric
Docket No. DG 06-107
Exhibit GSE-8
Attachment 1
Page 1 of 3

<u>Annual Incremental Rate Adjustments</u>		<u>07/01/2007</u>	<u>07/01/2008</u>	<u>07/01/2009</u>	<u>07/01/2010</u>	<u>07/01/2011</u>	<u>07/01/2012</u>
1	REP O&M Program	0	0	0	0	0	0
2							
3	REP Capital Program	0	172,126	84,733	81,898	79,174	76,554
4							
5	Total	0	172,126	84,733	81,898	79,174	76,554

Line 1 From Page 2 of 3 Line 16

Line 3 From Page 3 of 3 Line 40

Line 5 Line 1 minus Line 2

Granite State Electric Company
Illustrative Incremental VMP and REP O&M Program
Illustrative Computation of Annual Revenue Requirement

Granite State Electric
Docket No. DG 06-107
Exhibit GSE-8
Attachment 1
Page 2 of 3

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	
<u>Incremental VMP O&M Spend</u>						
1 VMP Program Budget	1,500,000	1,160,000	1,160,000	1,160,000	1,160,000	
2 VMP Base Spending Level	1,500,000	1,160,000	1,160,000	1,160,000	1,160,000	
3 Incremental Amount	0	0	0	0	0	
<u>Incremental REP O&M Spend</u>						
6 REP O&M Program Budget	450,000	200,000	200,000	200,000	200,000	
7 REP O&M Base Spending Level	450,000	200,000	200,000	200,000	200,000	
8 Incremental Amount	0	0	0	0	0	
10 Total Revenue Requirement	0	0	0	0	0	
<u>Annual Rate Adjustment</u>						
	<u>7/1/2007</u>	<u>7/1/2008</u>	<u>7/1/2009</u>	<u>7/1/2010</u>	<u>7/1/2011</u>	<u>7/1/2012</u>
14 Current Year Rate Adjustment		0	0	0	0	0
15 Expiration of Prior Year Rate Adj.		0	0	0	0	0
16 Incremental Rate Adjustment	0	0	0	0	0	0

Line 1 Illustrative Targeted VMP program spend. To be replaced with Actual amounts spent.
Line 2 Base amount of VMP program spend embedded in base rates based on CY 2006 Vegetation Management 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 16 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 06-107
Exhibit GSE-8
Attachment 1
Page 3 of 3

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
<u>Deferred Tax Calculation</u>							
1	REP Program Annual Spend	950,000	500,000	500,000	500,000	500,000	
2	Cumulative REP Program Spend	950,000	1,450,000	1,950,000	2,450,000	2,950,000	
3							
4	Book Depreciation Rate (a)	3.79%	3.79%	3.79%	3.79%	3.79%	
5	20 YR MACRS Tax Depr. Rates	3.75%	7.22%	6.68%	6.18%	5.71%	
6	Vinatge Year Tax Depreciation:						
7	Year 1 Spend	35,625	68,581	63,432	58,682	54,274	
8	Year 2 Spend		18,750	36,095	33,385	30,885	
9	Year 3 Spend			18,750	36,095	33,385	
10	Year 4 Spend				18,750	36,095	
11	Year 5 Spend					18,750	
12							
13	Annual Tax Depreciation	35,625	87,331	118,277	146,912	173,389	
14	Cumulative Tax Depreciation	35,625	122,956	241,232	388,144	561,532	
15							
16	Book Depreciation	36,005	54,955	73,905	92,855	111,805	
17	Cumulative Book Depreciation	36,005	90,960	164,865	257,720	369,525	
18							
19	Book/Tax Timer	(380)	31,996	76,367	130,424	192,007	
20	Effective Tax Rate	40.53%	40.53%	40.53%	40.53%	40.53%	
21							
22	Deferred Tax Reserve	(154)	12,966	30,948	52,854	77,811	
23							
24	<u>Rate Base Calculation</u>						
25	Plant In Service	950,000	1,450,000	1,950,000	2,450,000	2,950,000	
26	Accum Depr	(36,005)	(90,960)	(164,865)	(257,720)	(369,525)	
27	Def Tax Reserve	154	(12,966)	(30,948)	(52,854)	(77,811)	
28	Year End Rate Base	914,149	1,346,074	1,754,187	2,139,426	2,502,664	
29							
30	<u>Revenue Requirement Calculation</u>						
31	Year End Rate Base	914,149	1,346,074	1,754,187	2,139,426	2,502,664	
32	Pre-Tax ROR	11.91%	11.91%	11.91%	11.91%	11.91%	
33	Return and Taxes	108,856	160,289	208,886	254,760	298,014	
34	Book Depreciation	36,005	54,955	73,905	92,855	111,805	
35	Property Taxes (b) 2.87%	27,265	41,615	55,965	70,315	84,665	
36	Annual Revenue Requirement	172,126	256,859	338,756	417,930	494,484	
37							
38	<u>Annual Rate Adjustment</u>						
39							
40	Incremental Annual Rate Adjustment		172,126	84,733	81,898	79,174	
41							
42							
43	<u>Imputed Capital Structure</u>						
44		<u>Ratio</u>	<u>Rate</u>	<u>Weighted Rate</u>	<u>Pre Tax</u>		
45	Long Term Debt (c)	50.00%	7.54%	3.77%	3.77%		
46							
47	Common Equity	50.00%	9.67%	4.84%	8.14%		
48		<u>100.00%</u>		<u>8.61%</u>	<u>11.91%</u>		

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

Granite State Electric
Rate Settlement
Procedure for Adjusting Distribution Rates for Capital Investment Allowance (Illustrative Only)
Calculation of Percentage Adjustment to Distribution Rates
Rates Effective July 1, 2009

(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) Approved by Commission pursuant to Section (E), Exhibit GSE-6 of the settlement agreement
- (2) Forecasted Billing Units for the applicable period multiplied by current rates.
- (3) $\text{Line (3)} \div \text{Line (4)}$

**Granite State Electric
Rate Settlement
Procedure for Adjusting Distribution Rates for Capital Investment Allowance (Illustrative Only)
Calculation of Proposed Distribution Rates
Rates Effective July 1, 2009**

<u>Rate Class and Distribution Energy Component</u>	<u>Current Base Distribution Charges</u> (a)	<u>Proposed Distribution % Increase</u> (b)	<u>Proposed Base Distribution Charges</u> (c)	<u>Current Business Profits Surcharge</u> (d)	<u>Current Default Service Cost Reclassification Distribution Credit</u> (e)	<u>Proposed Total Distribution Charges</u> (f)
D						
Customer Charge	\$4.72	0.40%	\$4.73			\$4.73
1st 250 kWh	\$0.01773	0.40%	\$0.01780	\$0.00057	(\$0.00017)	\$0.01820
Excess 250 kWh	\$0.04615	0.40%	\$0.04633	\$0.00057	(\$0.00017)	\$0.04673
Off Peak kWh	\$0.01695	0.40%	\$0.01701	\$0.00057	(\$0.00017)	\$0.01741
Farm kWh	\$0.02755	0.40%	\$0.02766	\$0.00057	(\$0.00017)	\$0.02806
D-6 kWh	\$0.01773	0.40%	\$0.01780	\$0.00057	(\$0.00017)	\$0.01820
D-10						
Customer Charge	\$8.09	0.40%	\$8.12			\$8.12
On Peak kWh	\$0.05121	0.40%	\$0.05141	\$0.00057	(\$0.00008)	\$0.05190
Off Peak kWh	\$0.00000	0.40%	\$0.00000	\$0.00057	(\$0.00008)	\$0.00049
G-1						
Customer Charge	\$100.34	0.40%	\$100.74			\$100.74
Demand Charge	\$4.39	0.40%	\$4.40			\$4.40
On Peak kWh	\$0.00146	0.40%	\$0.00146	\$0.00057	\$0.00000	\$0.00203
Off Peak kWh	\$0.00000	0.40%	\$0.00000	\$0.00057	\$0.00000	\$0.00057
G-2						
Customer Charge	\$26.87	0.40%	\$26.97			\$26.97
Demand Charge	\$4.86	0.40%	\$4.87			\$4.87
All kWh	\$0.00035	0.40%	\$0.00035	\$0.00057	\$0.00000	\$0.00092
G-3						
Customer Charge	\$5.95	0.40%	\$5.97			\$5.97
All kWh	\$0.03321	0.40%	\$0.03334	\$0.00057	(\$0.00017)	\$0.03374
M						
All kWh	\$0.00000	0.40%	\$0.00000	\$0.00057	\$0.00000	\$0.00057
T						
Customer Charge	\$6.09	0.40%	\$6.11			\$6.11
All kWh	\$0.02171	0.40%	\$0.02179	\$0.00057	(\$0.00007)	\$0.02229
V						
Minimum Charge	\$6.36	0.40%	\$6.38			\$6.38
All kWh	\$0.03063	0.40%	\$0.03075	\$0.00057	(\$0.00009)	\$0.03123

- (a) Per currently effective tariffs
- (b) Exhibit GSE-6, Page 2
- (c) Column (a) x (1-Column (b))
- (d) Distribution Energy Charges include a Business Profits Tax Surcharge of \$0.00057 per kWh for usage on and after 8/1/01
- (e) Per Default Service Cost Reclassification Adjustment Provision
- (f) Column (c) + Column (d) + Column (e)