

EX1  
DE 11-107

ORIGINAL
N.H.P.U.C. Case No. DE 11-107
Exhibit No. #1
Witness Panel 1
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National Grid

Granite State Electric Company

Fiscal Year 2011 Reliability  
Enhancement Plan and  
Vegetation Management Plan  
Report

May 13, 2011

Submitted by:

**nationalgrid**

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## **Introduction**

Pursuant to the settlement agreement approved by the New Hampshire Public Utilities Commission (“Commission”) as part of the National Grid/KeySpan merger proceeding in Docket No. DG 06-107<sup>1</sup> (“Settlement Agreement”), Granite State Electric Company d/b/a National Grid (“National Grid” or “Company”) is submitting the results of the Reliability Enhancement Plan (“REP”) and Vegetation Management Plan (“VMP”) for Fiscal Year 2011 (“FY 2011”), representing the period, through April 1, 2010 - March 31, 2011. This report contains the following information:

- 1) A comparison of actual to budgeted spending on operating and maintenance (“O&M”) activities related to the REP and VMP in FY 2011. Table 3 shows that total actual spending was \$1,245,985, or \$306,015 less than the budgeted amount of \$1,552,000.
- 2) A comparison of actual to budgeted spending on capital projects for REP in FY 2011. Table 4 shows that total capital spending for FY 2011 was \$610,835. This actual spending is \$42,165 below the budgeted amount of \$653,000.
- 3) A request to refund to customers \$758,113, which is the amount of expense below the Base Plan O&M amount of \$1,360,000 that was defined by the Settlement Agreement. The refund amount consists of \$114,015 of O&M spending for the REP and VMP below the Base Plan O&M amount of \$1,360,000 plus \$644,098 in credits for vegetation management reimbursements from FairPoint Communications (“FairPoint”), as discussed in more detail in Section 1 below. The refund of \$758,113 represents a decrease of \$1,805,883 below the incremental \$1,047,770 of REP/VMP O&M that is

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<sup>1</sup> See Order No. 24,777 (July 12, 2007).

currently embedded in rates. The new O&M amount requested would be effective for usage on and after July 1, 2011;

- 4) A request for an incremental REP Capital Investment Allowance of \$102,941, representing the revenue requirement associated with \$610,835 of capital investment for FY 2011. The incremental REP Capital Investment Allowance would be included in rates effective for usage on and after July 1, 2011; and
- 5) A summary of reliability performance for FY 2011.

The Company is submitting the testimony of Jennifer Grimsley and Jeffrey Carney which provides further information regarding the Company's actual O&M cost and capital investment made during FY 2011. In addition, the testimony of David E. Tufts addresses the Company's request for a decrease in distribution rates associated with the REP/VMP Adjustment Provision and the REP Capital Investment Allowance described above, and includes a proposed rate design, typical bill impacts, and clean and revised tariff pages.

### **Section 1: FY 2011 Budget versus Actual O&M Expenses for Reliability Enhancement and Vegetation Management**

As per the Settlement Agreement, the Company provides an O&M budget to Commission Staff that assumes the REP and VMP O&M spending for each fiscal year that is approximately equal to the Base Plan O&M of \$1,360,000 or an alternative O&M Budget that exceeds the O&M Base Amount for consideration by Commission Staff.

Combined with the expenses associated with inspections and REP capital improvements, the Company submitted an O&M budget for FY 2011 of \$1,552,000, which was \$855,770 less

than the total amount of \$2,407,770 embedded in rates<sup>2</sup>. Commission Staff expressed their support for the budget, which was submitted to Staff on February 12, 2010 pursuant to the Settlement Agreement. The \$1,552,000 budget included a vegetation budget of \$1,418,000 for FY 2011, which was \$788,686 lower than the \$2,206,686 amount spent for vegetation management in fiscal year 2010 (“FY 2010”). The balance of the total O&M budget is associated with Inspection and Maintenance and the capital investments for REP.

As shown in Table 3, the Company’s actual total spending level for FY 2011 was \$1,245,985 for O&M activities related to the REP and VMP, or \$306,015 less than the filed budgeted amount of \$1,552,000. Partially offsetting the FY 2011 spending is \$644,098 in reimbursements from FairPoint related to its share of vegetation management expenses initially incurred by the Company and then billed to FairPoint, which are being passed back to customers. Budget variances related to the total FY 2011 REP and VMP O&M spending are described below. In addition, Attachment 1 shows the monthly expenses, while Attachment 2 contains the work plan of completed VMP O&M activities by feeder.

**Table 1. Fiscal Year 2011 REP O&M Activities**

<b>Activities</b>	<b>FY 2011 O&amp;M Cost Proposal</b>	<b>FY 2011 Actual O&amp;M Cost</b>
Inspection and Maintenance	\$20,000	\$6,738
O&M related to Capital Expenditures	\$114,000	\$43,794
<b>Total</b>	<b>\$134,000</b>	<b>\$50,532</b>

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<sup>2</sup> The annual recovery of REP/VMP O&M currently in rates consists of \$1,360,000 in base rates plus the incremental \$1,047,770 currently being recovered through the REP/VMP Adjustment Factor that took effect July 1, 2010.

**Table 2. Fiscal Year 2011 VMP O&M Activities**

<b>Activities</b>	<b>FY 2011 O&amp;M Cost Proposal</b>	<b>FY 2011 Actual O&amp;M Cost</b>
Spot Tree Trimming	\$60,000	\$26,456
Trouble and Restoration Maintenance	\$60,000	\$12,785
Planned Cycle Trimming	\$762,000	\$634,533
Cycle Trimming Police Detail Expenses	\$67,000	\$120,163
Hazard Tree Removal	\$287,500	\$318,607
Interim Trimming	\$58,000	\$0
Tree Planting	\$500	\$1,137
Other Police Detail Expenses	\$23,000	\$16,793
Optional Enhanced Hazard Tree Removal	\$100,000	\$64,979
<b>Total</b>	<b>\$1,418,000</b>	<b>\$1,195,453</b>

**Table 3. Fiscal Year 2011 Total O&M Costs**

<b>Activities</b>	<b>FY 2011 O&amp;M Cost Proposal</b>	<b>FY 2011 Actual O&amp;M Cost</b>
REP O&M	<b>\$134,000</b>	<b>\$50,532</b>
VMP O&M	<b>\$1,418,000</b>	<b>\$1,195,453</b>
<b>Total O&amp;M</b>	<b>\$1,552,000</b>	<b>\$1,245,985</b>
Less Reimbursements from FairPoint	-----	\$644,098
<b>Total</b>	<b>\$1,552,000</b>	<b>\$601,887</b>

The Company completed all of the vegetation management work contained in its FY 2011 plan. Overall, actual FY 2011 expenses incurred for base VMP O&M activities amounted to \$1,195,453, or \$222,547 less than the proposed budget of \$1,418,000. The spending variance is the result of two factors. First, bid prices for cycle pruning were lower than expected resulting in lower than forecast unit prices. Second, the Company spent less than anticipated for spot tree trimming, trouble and restoration calls, and interim trimming. This is due to the fact that these activities are demand driven and the Company experienced lower demand for these activities during FY 2011 than forecasted. However, cycle pruning police detail expenses and hazard tree removal exceeded the anticipated spending levels.

The Company spent \$50,532 in O&M costs associated with the REP programs, or \$83,468 less than the proposed budget of \$134,000. This decrease in O&M costs was driven by the lower than forecasted amount of equipment that needed repair or replacement in the Feeder Hardening program.

Finally, as previously noted, partially offsetting the total O&M spending of \$1,245,985 were reimbursements from FairPoint of \$644,098 for its share of vegetation management costs, resulting in total O&M costs for FY 2011 of \$601,887.

## **Section 2: Fiscal Year Capital Budget versus Investment for Reliability Enhancement**

In addition to the \$134,000 in O&M costs associated with the REP, as shown above, the Company proposed a \$653,000 REP capital budget in FY 2011. As discussed with Commission Staff, the Company budgeted this amount to perform hardening activities along 25 miles of the Vilas Bridge 12L1 feeder, install four reclosers, and replace/install 400 cutouts on various feeders. As shown in Table 4 below, the Company met or exceeded each of these targets while spending less than the total budget.

**Table 4. Summary of Fiscal Year 2011 REP Capital Investment**

<b>Projects</b>	<b>FY 2011 Goal</b>	<b>FY 2011 Actual</b>	<b>FY 2011 Capital Investment Budget</b>	<b>FY 2011 Actual Capital Investment (FERC 101/106)</b>
Feeder Hardening (miles)	25	25	\$283,000	\$136,569
<b>Asset Replacement</b>				
- Reclosers	4	4	\$206,000	\$250,270
- Cutouts: Installing new cutouts on side taps and replacing potted porcelain cutouts	400	774	\$164,000	\$223,996
<b>Total</b>			<b>\$653,000</b>	<b>\$610,835</b>

In FY 2011, 25 miles of feeder hardening were completed on the Vilas Bridge 12L1 feeder. Four (4) new line reclosers were installed to improve feeder sectionalization. A recloser was installed on the Vilas Bridge 12L1 feeder, the Craft Hill 11L1 feeder, the Enfield 7L2 feeder, and the Lebanon 1L2 feeder. The Company was then able to accelerate its program to replace potted porcelain cutouts with the proposed budget and replaced a total of 774 potted porcelain cutouts, or 374 more than originally planned.

Table 4 compares the budgeted capital expenditures against the value of electric plant additions placed in-service to the FERC 101/106 accounts. These FY 2011 additions form the basis for the REP capital-related revenue requirement calculation in this filing. Factors contributing to the difference between the FY 2011 budgeted amount and the FY 2011 actual capital investment typically are associated with (1) timing differences due to budgeted amounts from the prior fiscal year being placed into service in FY 2011, which can typically occur as capital work is performed, completed, and processed through the accounting system, and (2) the changes in actual verses estimated costs as site specific requirements are determined by inspection or detailed design. The variance in each of the REP projects is described below:

Feeder Hardening: Feeder Hardening is a remedial program in which worst performing feeders are targeted for replacement or installation of equipment such as fuse cutouts, crossarms, poles, transformers, reclosers, lightning arresters, and animal guards. Variance in the total versus estimated cost for the feeder hardening program in FY 2011 reflects the lower unit cost associated with working in a rural area, such as the area where the Vilas Bridge 12L1 feeder is located. Rural area work requires fewer repairs and fewer replacements in the field per mile than suburban or urban areas. This resulted in lower than average cost per mile and lower total cost than the estimated unit cost per mile used for the proposed budget.

Reclosers: The variance in the recloser program in FY 2011 was driven by the design scope specific to the site of installation. Two of the four reclosers installed in FY 2011 were installed on the Enfield 7L2 and Lebanon 1L2 feeders rather than the Olde Trolley 18L2 and 18L4 feeders, the latter two installations being amongst those originally planned. The decision to change two of the feeders on which reclosers were installed was made in an attempt to respond directly to significant service interruptions that had occurred in the Lebanon area during FY 2010 and FY 2011. The two reclosers installed on the Enfield 7L2 feeder and the Lebanon 1L2 feeders were made part of a single loop scheme rather than simple radial scheme. Using reclosers in a loop scheme allows distribution automation to be implemented between two feeders. Automatic backup from a second feeder is a reliability benefit that does not occur with simple radial schemes. The loop scheme reclosers require sensing transformer banks, which required pole height increases to maintain proper clearances, as well as secondary wire installations to the

recloser itself. In addition, loop scheme recloser controls are more expensive than the radial installations. These factors described above, account for the budget variance.

Cutouts: The variance in the cutout program in FY 2011 was driven by the decision to exceed the budgeted number of cutouts to be replaced. After recognizing in the fiscal year that the Feeder Hardening program goal would be met under budget, the Company accelerated the cutout replacement program as opposed to increasing Feeder Hardening mileage because the cutout replacement program better aligned with availability of resources and material in the last quarter of FY 2011.

The Company was able to meet all of its REP goals and exceed the cutout replacement goal while still keeping the total expenditure for all REP activities under the total REP budget for FY 2011 by \$42,165. As set forth in Mr. Tufts' testimony, the revenue requirement associated with FY 2011 capital investment of \$610,835 is \$102,941.

### **Section 3: Fiscal Year 2011 Reliability Results**

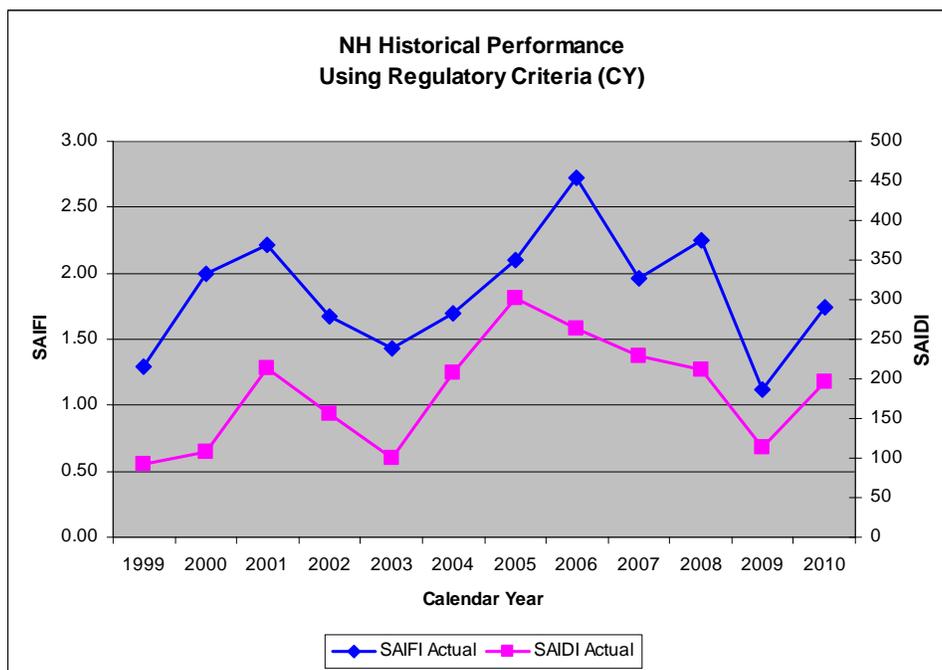
In previous years, this report has presented reliability results on a calendar year ("CY") basis. Metrics for CY 2010 are presented in Table 5 based on both the regulatory standard for excluding major weather events and the IEEE Standard 1366 method for excluding major weather events. The metrics include customers interrupted ("CI"), customer minutes interrupted ("CMI"), system average interruption frequency index ("SAIFI"), and system average interruption duration index ("SAIDI").

**Table 5. Calendar Year 2010 Reliability Results<sup>3</sup>**

Major Storm Criterion	CI	CMI	SAIFI	SAIDI
PUC Major Event Day <sup>4</sup> Standard	72,089	8,156,936	1.74	196.43
IEEE 1366 Major Event Day <sup>5</sup> Standard	72,089	8,156,936	1.74	196.43

As shown in Figure 1 below, the reliability performance metrics in CY 2010 were above the metrics of CY 2009. Despite the increase in CY 2010, however, the metrics remained below the peak that occurred in 2006 and the multi-year trend in performance since 2005 remains on a downward trajectory.

**Figure 1. Calendar Year Historical Reliability Performance**



<sup>3</sup> Only events involving 1 or more customers and more than 5 minutes are included in the calculated statistics.

<sup>4</sup> PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, three days was excluded in Calendar Year 2010: February 25 and 26, 2010.

<sup>5</sup> IEEE Major Event Days: Using IEEE criteria, three days was excluded in Calendar Year 2010: February 25 and 26, 2010.

As set forth in Exhibit GSE-8 of the Settlement Agreement, the REP and VMP are being implemented by National Grid in order to bring the Company's reliability performance back to historical performance levels that existed prior to 2005<sup>6</sup>, with the goal of meeting those historical performance levels by the end of fiscal year 2013<sup>7</sup>. Therefore, beginning in this report, the Company's reliability performance metrics are presented on a fiscal year basis in order to be in alignment with the terms of the 2013 goal. Metrics for FY 2011 are presented in Table 5.

**Table 6. Fiscal Year 2011 Reliability Results<sup>8</sup>**

Major Storm Criterion	CI	CMI	SAIFI	SAIDI
PUC Major Event Day <sup>9</sup> Standard	61,728	6,803,781	1.49	163.76
IEEE 1366 Major Event Day <sup>10</sup> Standard	61,728	6,803,781	1.49	163.76

As shown in Figure 2 below, the reliability performance metrics in FY 2011 were slightly above the metrics of FY 2010. Despite the increase in FY 2011, however, the metrics again remained below the peak that occurred in 2006 and the multi-year trend in performance since 2005 remains on a downward trajectory. The Company remains vigilant with its REP and VMP activities to sustain this overall trend and to meet the 2013 goals.

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<sup>6</sup> See Exhibit GSE-8 of the Settlement Agreement at p. 1.

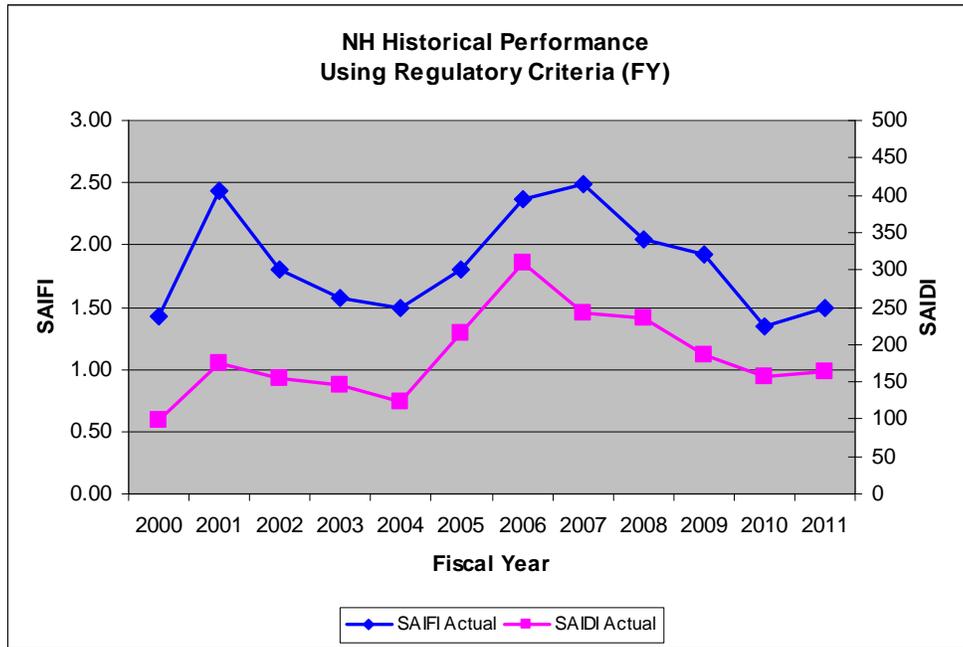
<sup>7</sup> Historical performance levels that existed prior to 2005 are defined as average SAIDI and SAIFI performance, plus one standard deviation over the period 1996 to 2004, excluding storms that meet the IEEE criteria. The goal by the end of fiscal year 2013 is to achieve average SAIFI of 1.8 and average SAIDI of 126.

<sup>8</sup> Only events involving 1 or more customers and more than 5 minutes are included in the calculated statistics.

<sup>9</sup> PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, one day was excluded in FY 2011 – March 7, 2011.

<sup>10</sup> IEEE Major Event Days: Using IEEE criteria, one day was excluded in FY 2011 – March 7, 2011.

Figure 2. Fiscal Year Historical Reliability Performance





Attachment 1: FY 11 Actual VMP Operating and Maintenance Expenses by Month

Activity	April	May	June	July	August	September	October	November	December	January	February	March	Total
Spot Trimming	\$ 4,157.58	\$ 994.40	\$ 1,384.76	\$ 701.58	\$ 3,149.29	\$ 959.40	\$ 3,291.90	\$ 2,707.77	\$ 2,560.51	\$ 3,261.29	\$ -	\$ 3,288.42	\$ 26,456.90
Trouble & Restoration Maintenance	\$ 869.55	\$ 1,600.29	\$ 1,710.70	\$ 876.04	\$ 978.01	\$ 1,481.83	\$ 1,374.05	\$ 614.20	\$ 658.91	\$ 738.40	\$ -	\$ 1,883.72	\$ 12,785.70
Planned Cycle Trimming	\$ 85,766.30	\$ 10,260.00	\$ (45,528.00)	\$ 137,363.85	\$ -	\$ (29,871.80)	\$ 116,839.35	\$ -	\$ 46,208.76	\$ 75,929.63	\$ 51,293.00	\$ 186,272.89	\$ 634,533.98
Cycle Trimming Police Detail Expense	\$ 13,684.50	\$ 5,630.00	\$ 2,832.00	\$ -	\$ 26,370.00	\$ 26,664.00	\$ 14,239.00	\$ 2,205.00	\$ 14,112.50	\$ 9,481.50	\$ -	\$ 4,944.75	\$ 120,163.25
Hazard Tree Removal	\$ 19,018.92	\$ 13,428.94	\$ 21,996.00	\$ 28,000.32	\$ 6,992.16	\$ 40,103.60	\$ 51,823.88	\$ 17,472.86	\$ 31,088.87	\$ 13,206.72	\$ -	\$ 140,454.21	\$ 383,586.48
Interim Trimming	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tree Planting	\$ -	\$ -	\$ -	\$ 336.59	\$ 400.50	\$ -	\$ 400.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,137.59
Other Police Detail Expenses	\$ 925.80	\$ -	\$ 940.00	\$ -	\$ 1,496.50	\$ 2,353.00	\$ 2,976.00	\$ 192.00	\$ 3,200.00	\$ 672.00	\$ -	\$ 4,038.00	\$ 16,793.30
<b>Grand Totals</b>	<b>\$ 124,422.65</b>	<b>\$ 31,913.63</b>	<b>\$ (16,664.54)</b>	<b>\$ 167,278.38</b>	<b>\$ 39,386.46</b>	<b>\$ 41,690.03</b>	<b>\$ 190,944.68</b>	<b>\$ 23,191.83</b>	<b>\$ 97,829.55</b>	<b>\$ 103,289.54</b>	<b>\$ 51,293.00</b>	<b>\$ 340,881.99</b>	<b>\$ 1,195,457.20</b>

Note:  
Negative values in June & September for planned cycle trimming resulted from accrual reversals



**Fiscal Year 2011 Planned & Completed Cycle Trimming Details**

<b>Company</b>	<b>District</b>	<b>Substation Name</b>	<b>Feeder</b>	<b>Overhead Miles</b>	<b>Completed Miles</b>
41	Salem	Spicket River #13	13L2	39.81	39.81
41	Salem	Old Trolley #18	18L2	14.22	14.22
41	Salem	Salem Depot #9	9L3	24.74	24.74
41	Lebanon	Enfield #7	7L2	42.52	42.52
41	Charlestown/Walpole	Vilas Bridge #12	12L2	54.46	54.46

**Fiscal Year 2011 Completed Enhanced Hazard Tree Mitigation**

<b>Company</b>	<b>District</b>	<b>Substation Name</b>	<b>Feeder</b>	<b>Overhead Miles</b>	<b>Completed Removals</b>
41	Lebanon	Lebanon #1	1L3	7.72	76
41	Salem	Old Trolley #18	18L4	5.87	83

**Fiscal Year 2011 Completed Optional Enhanced Hazard Tree Mitigation**

<b>Company</b>	<b>District</b>	<b>Substation Name</b>	<b>Feeder</b>	<b>Overhead Miles</b>	<b>Completed Removals</b>
41	Lebanon	Lebanon #1	1L2	29.89	32
41	Salem	Spicket River #13	13L1	7.25	57
41	Salem	Pelham #14	14L1	12.02	20
41	Salem	Pelham #14	14L2	11.40	7

**Total Estimated Tree Hazard Removals: 298 Actual Tree Hazard Removals: 275**

**Fiscal Year 2011 Sub-Transmission Planned & Completed Clearing Details**

<b>Company</b>	<b>District</b>	<b>Feeder</b>	<b>Substation Name</b>	<b>Acres</b>	<b>Completed Acres</b>
41	Salem	2376/2393/2352	Spicket River/Barron Ave./Salem Depot/Golden Rock	50.00	50.00



**Direct Testimony**

**of**

**Jennifer Grimsley**

**and**

**Jeffrey Carney**

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Jennifer Grimsley**

3 **Q. Ms. Grimsley, please state your full name and business address.**

4 A. My name is Jennifer L. Grimsley, and my business address is 40 Sylvan Road, Waltham,  
5 MA 02451.

6

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

8 A. I am employed as the Director, New England Electric Network Strategy, by National  
9 Grid USA Service Company, Inc. (the “Service Company”). In my capacity as Director,  
10 I am responsible for regulatory filings and regulatory compliance related to electric  
11 distribution operations, specifically for reliability and capital expenditures, for Granite  
12 State Electric Company d/b/a National Grid (“Granite State” or the “Company”) in New  
13 Hampshire and for other National Grid retail distribution companies in Massachusetts  
14 and Rhode Island.

15

16 **Q. Please describe your educational background.**

17 A. I graduated from Washington University in 1986, earning a bachelor’s degree in  
18 electrical engineering and from Rivier College in 1991, earning a master’s degree in  
19 business administration.

20

1 **Q. Please describe your professional experience.**

2 A. In 1986, I began my engineering career as an associate engineer with Massachusetts  
3 Electric Company, a subsidiary of National Grid USA (“National Grid”) and an affiliate  
4 of Granite State, in North Andover, Massachusetts. In 1993, I was promoted to district  
5 engineering manager, and have held various engineering and management positions since  
6 that time, including Project Manager for the Reliability Enhancement Program in 2006.  
7 In 2007, I became Manager Asset Strategy and Policy and was responsible for  
8 developing the strategies to replace distribution assets. I was promoted to Director, Asset  
9 Strategy & Policy in 2008. In 2009, I became Executive Advisor to the Chief Operating  
10 Officer of Electricity Operations for National Grid. In 2011, I assumed my current role  
11 as Director, New England Electric Network Strategy.

12  
13 **Q. Have you previously testified before the New Hampshire Public Utilities  
14 Commission (the “Commission”)?**

15 A. No, I have not.

16  
17 **Jeffrey Carney**

18 **Q. Mr. Carney, would you please state your full name and business address?**

19 A. My name is Jeffrey Carney, and my business address is 40 Sylvan Road, Waltham, MA  
20 02451.

21

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

2 A. I am employed by the Service Company as the System Arborist, Vegetation Management  
3 Strategy for Electric Distribution Operations. In my capacity as System Arborist, I  
4 support the Manager of Vegetation Management Strategy and assist with distribution  
5 Vegetation Management Strategy and Policy for Granite State in New Hampshire and for  
6 other National Grid retail distribution companies in Massachusetts, Rhode Island, and  
7 New York.

8  
9 **Q. Please describe your educational background.**

10 A. I graduated from Paul Smith's College of Arts and Sciences in Paul Smiths, New York in  
11 1976. I received an associate's degree in Applied Science in Forestry and Land  
12 Surveying.

13  
14 **Q. Please describe your professional experience.**

15 A. I joined the Service Company in 2007. Before being named to my current position in  
16 2007, I was the Transmission and Distribution Forester for Granite State and New  
17 England Power Company's territory in New Hampshire and Vermont from 1989 to 2005.  
18 From 2005 to 2007, I was the New England North Lead Arborist and oversaw New  
19 England North Arborists responsible for developing forestry strategy and delivery the  
20 work plan. During that time, I simultaneously served as the Company's District Arborist  
21 in New Hampshire. From 1979 to 1989, I was a self-employed Consulting Forester.

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**Q. Have you previously testified before the Commission?**

A. Yes, I have.

**II. PURPOSE OF TESTIMONY**

**Q. What is the purpose of this testimony?**

A. This testimony serves two purposes. First, this testimony will provide the Commission with background information regarding the Reliability Enhancement Program (“REP”) and Vegetation Management Program (“VMP”) that Granite State implemented during Fiscal Year 2011 (April 1, 2010 - March 31, 2011) and is described in the Company’s Fiscal Year 2011 Reliability Enhancement Plan and Vegetation Management Plan Report dated May 13, 2011 (the “2011 REP/VMP Report”) submitted to the Commission as part of this filing. Second, this testimony provides information on the Company’s request to refund to customers the amount of \$758,113, which is the amount of expense below the Base Plan operating and maintenance (“O&M”) amount of \$1,360,000 that was defined by the settlement agreement approved by the Commission as part of the National Grid/KeySpan merger proceeding in Docket No. DG 06-107<sup>1</sup> (“Settlement Agreement”). The refund amount consists of \$114,015 of O&M spending for the REP and VMP below the Base Plan O&M amount of \$1,360,000 plus \$644,098 in credits for vegetation management reimbursements from FairPoint Communications (“FairPoint”), as discussed in more detail in Section 1 below. The refund of \$758,113 represents a decrease of

1       \$1,805,883 below the incremental \$1,047,770 of REP/VMP O&M that is currently  
2       embedded in rates. The new O&M amount requested would be effective for usage on  
3       and after July 1, 2011. The amount will be refunded through the REP/VMP Adjustment  
4       Provision as set forth in Exhibit GSE-8 of the Granite State Rate Plan approved as part of  
5       the Settlement Agreement. In addition, the Company is requesting an incremental  
6       revenue requirement of \$102,941 associated REP Capital Investment of \$610,835.  
7       Information regarding the calculation of the REP/VMP Adjustment Provision and the  
8       REP Capital Investment Allowance, and the associated rate impacts, is set forth in the  
9       Testimony of David E. Tufts, which is a part of this filing.

10  
11   **III.   OVERVIEW OF REP AND VMP**

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

13   A.   As part of the Settlement Agreement, Granite State committed to implement an REP and  
14       VMP to bring the Company back to the historical reliability performance levels that  
15       existed prior to 2005, with the goal of meeting those historical performance levels by  
16       2013. In general, the REP and VMP include categories of both capital and O&M  
17       spending targeted to improve reliability performance. The REP and VMP are premised  
18       on the idea that a certain amount of annual spending on both capital and O&M activities  
19       is necessary to maintain the safety and reliability of the Company's electric distribution  
20       system. The Settlement Agreement assumes that a base amount of \$1,360,000 will be  
21       spent on O&M activities associated with the REP and VMP during each fiscal year of the

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<sup>1</sup> See Order No. 24,777 (July 12, 2007).

1 Company's five-year rate plan established in the Settlement Agreement, and that the  
2 Company will establish a proposed budget for REP capital investments for each fiscal  
3 year following discussions with Staff. To the extent the Company spends less than the  
4 agreed upon base O&M budget on REP and VMP O&M activities for the given fiscal  
5 year, the difference would be credited to customers either through a refund commencing  
6 on July 1 or credited to the following year's REP and VMP O&M budget, at the  
7 Commission's discretion. Notwithstanding the base O&M amount of \$1,360,000, the  
8 Company has the flexibility to propose, implement and collect the revenue requirement  
9 associated with alternative plans that exceed the base O&M amount assuming that the  
10 associated spending is just and reasonable.<sup>2</sup>

11  
12 **Q. What kinds of activities are included in the REP and VMP?**

13 A. As described in detail in Exhibit GSE-8 to the Settlement Agreement, the REP and VMP  
14 include the following categories of activities: feeder hardening, augmented tree-  
15 trimming and clearing, asset replacement, and inspection and maintenance.

16  

---

<sup>2</sup> Settlement Agreement, Exhibit GSE-8 at 4-5 provides for cost recovery for any deviations from the plan reviewed by Staff, providing that the deviations were either due to circumstances out of the Company's reasonable control or, if within its control, were reasonable and prudent. Exhibit GSE-8 at 8-9.

1   **Q.    How does the Company decide how to allocate funds towards vegetation**  
2           **management and reliability activities within a given year’s budget and how does the**  
3           **Company determine which REP/VMP projects to undertake in any given year?**

4    A.    Each year the Company develops an Annual Work Plan that is designed to achieve the  
5           overriding performance objectives of the business (safety, reliability, efficiency,  
6           customer satisfaction and environmental). At the outset, a draft work plan consists of a  
7           compilation of proposed spending for Asset Strategies, individual capital projects and  
8           statutory and regulatory mandatory work activities. Each potential project specified  
9           within the plan contains justification and estimated costs. The Company uses a  
10          prioritization model based on relative risk of each project proposal to facilitate the  
11          selection of appropriate projects to be included in the Annual Work Plan. The ranking  
12          and selection of projects is reviewed in challenge sessions and further prioritized to  
13          achieve an optimized portfolio of projects considering the most up to date reliability  
14          performance information compared to the reliability improvements targeted by the  
15          various programs and the deliverability of the various programs within the fiscal year.  
16          The Company’s objective is to arrive at a budget that is the optimal balance in terms of  
17          making investments necessary to maintain and improve the performance of the system,  
18          while also ensuring a cost-effective use of the Company’s available resources. At the  
19          same time the Company must maintain a level of flexibility inherent with regard to the  
20          budget and spending process to deal with circumstances that inevitably arise during the

1 year. The allocation of funds for vegetation management and reliability activities is part  
2 of this budgeting process.

3  
4 **Q. Are the capital improvements in the REP/VMP Plan the only capital investments**  
5 **made by the Company to its system?**

6 A. No. The Company has a five-year capital plan that includes investments in the following  
7 key categories: (a) expenditures required to ensure that the Company meets its legal,  
8 regulatory and contractual obligations; (b) capital expenditures required to replace failed  
9 or damaged equipment and to restore the Company's system to its normal operating  
10 configuration and capability following storm or other events; (c) non-infrastructure  
11 improvements that are required to run the Company's power system, such as tools and  
12 other general plant; (d) expenditures undertaken to maintain and/or upgrade the  
13 capability of the Company's system to provide adequate or improved thermal loading,  
14 voltage, stability, reliability or availability performance; and (e) capital expenditures  
15 required to reduce the risk and consequences of potential failures of transmission and  
16 distribution assets.

17  
18 **Q. Please explain the Fiscal Year 2011 REP/VMP Report.**

19 A. By May 15 of each fiscal year associated with the five-year rate plan period (January 1,  
20 2008 through December 31, 2012), the Company is required to make a reconciliation  
21 filing with the Commission for both its REP and VMP detailing the actual amounts

1 associated with REP and VMP activities during the prior fiscal year as compared with  
2 budgeted amounts. The Company met with Staff to discuss the Company's Fiscal Year  
3 2011 plan. The Staff and Company agreed on a budget of \$1,552,000 for the Company's  
4 Fiscal Year 2011 plan, which was submitted to Staff on February 12, 2010. This budget  
5 reflected an incremental increase of \$192,000 over the threshold amount of \$1,360,000 in  
6 O&M expense set forth in the Settlement Agreement due to a significant increase in the  
7 costs associated with hazard tree removals. As set forth in the 2011 REP/VMP Report  
8 and the Pre-filed Direct Testimony of David E. Tufts, the Company's actual O&M  
9 expense and capital investment associated with REP/VMP activities deviated from the  
10 filed budget. Specifically, the Company is seeking to refund to ratepayers \$758,113  
11 O&M expense below the threshold amount of \$1,360,000, which consists of \$114,015  
12 under spending for REP and VMP O&M plus \$644,098 in credits for vegetation  
13 management reimbursements from FairPoint. The Company also requests an incremental  
14 REP Capital Investment Allowance of \$102,941, representing the revenue requirement  
15 associated with \$610,835 of capital investment in Fiscal Year 2011. If approved, the  
16 Company is requesting that these rate adjustments become effective for usage on and  
17 after July 1, 2011, as set forth in the Settlement Agreement.

18

1 **IV. FISCAL YEAR 2010 REP AND VMP IMPLEMENTATION**

2 **Q. Please summarize the Company's capital investment during the fiscal year?**

3 A. The Company proposed a \$653,000 capital budget and \$134,000 for O&M associated  
4 with its REP in Fiscal Year 2011 as shown in Table 1 and Table 4 of the 2011 REP/VMP  
5 Report. As discussed with Staff, the Company budgeted this amount to perform  
6 hardening activities along 25 miles of the Vilas Bridge 12L1 feeder, to install four  
7 reclosers and to replace/install 400 cutouts. As shown in Table 4 of the 2011 REP/VMP  
8 Report, the Company met or exceeded each of these targets.

9

10 **Q. Why did the Company's O&M spending vary from the Company's original budget?**

11 A. As described in the 2011 REP/VMP Report, lower than forecast actual O&M spending is  
12 due to lower than forecast bid prices for cycle pruning were lower than expected resulting  
13 in an under spend for this activity; however, cycle pruning police detail expenses and  
14 hazard tree removal exceeded the anticipated spending level. In addition, the Company  
15 also experienced lower than anticipated demand for VMP work.

16

17 **Q. Has the Company changed its reporting of reliability metrics in the Fiscal Year**  
18 **2011 report?**

19 A. In previous years, this report has presented reliability results on a calendar year basis.  
20 However, as set forth in Exhibit GSE-8 of the Settlement Agreement, the REP and VMP  
21 are being implemented by the Company in order to bring the Company's reliability

1 performance back to historical performance levels that existed prior to 2005<sup>3</sup>, with the  
2 goal of meeting those historical performance levels by the end of Fiscal Year 2013<sup>4</sup>.  
3 Therefore, beginning in this report, the Company's reliability performance metrics are  
4 presented on a fiscal year basis in addition to a calendar year basis.  
5

6 **Q. Please summarize the reliability results shown in the Fiscal Year 2011 report?**

7 A. Metrics for Calendar Year 2010 and the Fiscal Year 2011 are presented in Table 5 and  
8 Table 6, respectively, of the 2011 REP/VMP Report. The metrics are based on both the  
9 regulatory standard for excluding major weather events and the IEEE Standard 1366  
10 method for excluding major weather events. The metrics include Customers Interrupted,  
11 Customer Minutes Interrupted, system average interruption frequency index ("SAIFI"),  
12 and system average interruption duration index ("SAIDI").  
13

14 As shown in Figure 1, the reliability metrics in Fiscal Year 2011 were slightly above the  
15 metrics of Fiscal Year 2010. Despite the increase in Fiscal Year 2011, however, the  
16 metrics remained below the peak that occurred in 2006 and the multi-year trend in  
17 performance since 2005 remains on a downward trajectory. The Company remains  
18 vigilant with its REP and VMP activities to sustain this overall trend and to meet the  
19 2013 goals.

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<sup>3</sup> See Exhibit GSE-8 of the Settlement Agreement at pp. 1.

<sup>4</sup> Historical performance level is defined as average SAIDI and SAIFI performance, plus one standard deviation, over the period 1996 to 2004 excluding storms that meet the IEEE criteria. The goal by the end of fiscal year 2013 is to achieve average SAIFI of 1.8 and average SAIDI of 126.

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**Q. Were the REP/VMP expenditures for which the Company is seeking recovery reasonable and prudent?**

A. Yes. As described in this filing, the expenditures were reasonable and prudent because these expenditures were made for programs that are specifically referenced in the Settlement Agreement as necessary to achieve continued improvement in the Company’s system reliability in order to achieve pre-2005 reliability levels. The work taken on this year in terms of vegetation management, feeder hardening and cutout replacements was necessary to enable the Company to deliver on its commitment to restore reliability performance to the goals set in the Agreement. It is reasonable to grant the Company recovery of those costs because they are associated with the specific REP activity that is being undertaken, were prudently incurred for the explicit purpose of improving system reliability, consistent with the intent of the Settlement Agreement, and generated real customer benefits in the form of improved reliability performance. These expenditures were prudent because they were the result of a rigorous and deliberate budgeting project which as described above, prioritizes capital projects based on a number of criteria.

**V. CONCLUSION**

**Q. Does that conclude your testimony?**

A. Yes, it does.



**Direct Testimony**  
**of**  
**David E. Tufts**

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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Mr. Tufts, please state your full name and business address.**

3 A. My name is David E. Tufts. My business address is 40 Sylvan Road, Waltham,  
4 Massachusetts 02451.

5

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

7 A. I am Director, Regulatory Accounting for National Grid USA Service Company, Inc.  
8 (“Service Company”). The Service Company provides engineering, financial,  
9 administrative and other technical support to subsidiary companies of National Grid  
10 USA. My current duties include revenue requirements oversight for National Grid  
11 USA’s electric distribution and generation activities in the US, including Granite State  
12 Electric Company d/b/a National Grid (“National Grid” or the “Company”).

13

14 **Q. Please provide a brief summary of your educational background.**

15 A. In 1983, I earned a Bachelor of Science degree in Accounting, from Stonehill College in  
16 Easton, Massachusetts.

17

18 **Q. Please describe your professional background.**

19 A. From 1981 through April 2000, I was employed by various subsidiary companies of  
20 Eastern Utilities Associates (“EUA”), including EUA Service Corporation which  
21 provided accounting, financial, engineering, planning, data processing, and other services  
22 to all EUA System companies. I joined EUA’s accounting department in 1983. I held

1 positions of increasing responsibility in accounting and was promoted to the position of  
2 Manager of Accounting Services in 1991. The EUA System was acquired by National  
3 Grid USA in early 2000, at which time I joined the Service Company. In January 2009, I  
4 became Director, Electric Distribution and Generation Revenue Requirements. In April  
5 2011, I became Director, Regulatory Accounting.

6  
7 **Q. Have you previously testified before the New Hampshire Public Utilities**  
8 **Commission (“NHPUC” or “Commission”)?**

9 A. Yes. I have previously testified before the Commission in Dockets DE 09-094 and DE  
10 10-140.

11  
12 **II. PURPOSE OF TESTIMONY**

13 **Q. What is the purpose of this testimony?**

14 A. This testimony supports the Company’s request for Commission approval to recover the  
15 incremental operating and maintenance (“O&M”) and capital investment allowance  
16 expense associated with the Vegetation Management Program (“VMP”) and Reliability  
17 Enhancement Program (“REP”) implemented during fiscal year 2011 (“FY 2011”).  
18 Resulting from the Company’s FY 2011 REP and VMP Report (“2011 REP/VMP  
19 Report”) included in this filing, the Company is seeking to refund customers \$758,113  
20 through the REP/VMP Adjustment Provision (plus interest of \$18,446), which represents  
21 the amount of incremental O&M expense below the base O&M amount of \$1,360,000, or  
22 \$114,015, plus reimbursements from FairPoint Communications (“FairPoint”), as

1 discussed later in my testimony. In addition, the Company is seeking to recover a REP  
2 Capital Investment Allowance of \$102,941, which is the revenue requirement associated  
3 with \$610,835 of capital investment for FY 2011.

4  
5 The Company has calculated an annual rate adjustment of \$(1,721,388) (\$1,702,942, as  
6 shown on Schedule DET-1, Page 1, Line 9, plus interest of \$18,446, as shown on  
7 Schedule DET-2, Page 3, Line 2) effective for usage on and after July 1, 2011 associated  
8 with the REP Capital Investment Allowance and the REP/VMP Adjustment Provision.

9 The REP Capital Investment Allowance revenue requirement of \$102,941 translates into  
10 a percentage increase of 0.50 percent to base distribution rates. The net incremental  
11 O&M refund to customers of \$776,559 (including interest of \$18,446 as noted above)  
12 translates into a proposed REP/VMP Adjustment Factor of (\$0.00083) per kilowatt-hour.

13

14 **Q. Are there any schedules accompanying your testimony?**

15 A. Yes, there are. Attached to my testimony are the following schedules:

16	Schedule DET-1	Revenue Requirement
17	Schedule DET-2	Rate Design
18	Schedule DET-3	Reconciliation of Recovery of FY 2009 and FY 2010
19		Incremental O&M Expense Above Base O&M Expense
20		
21	Schedule DET-4	Typical Bill Impacts
22	Schedule DET-5	Revised Tariff Pages

1 **III. INCREMENTAL REP/VMP O&M EXPENSE**

2 **Q. Is the Company's request to recover the incremental REP/VMP O&M expense**  
3 **incurred during FY 2011 consistent with the terms of the comprehensive settlement**  
4 **agreement approved by the Commission in Docket No. DG 06-107 ("Settlement**  
5 **Agreement")?**

6 A. Yes. As required by the Settlement Agreement, on February 12, 2010 the Company  
7 provided its proposed REP and VMP to Staff for FY 2011 for Staff's review. In addition,  
8 the Company met with Staff to discuss its FY 2011 proposal. The elements that the REP  
9 and VMP must include and the process for Staff review are set forth in Exhibit GSE-8 to  
10 the Settlement Agreement at pages 4 and 5. The Settlement Agreement at page 5 of  
11 Exhibit GSE-8 establishes a base O&M expense amount of \$1,360,000 for fiscal years  
12 2009 through 2012. Actual expenses incurred by the Company in implementing the  
13 O&M components of the annual REP and VMP, as agreed to with Staff, shall be  
14 reconciled to the base O&M amount of \$1,360,000 and shall be subject to the REP/VMP  
15 Adjustment Provision. This reconciliation is shown in column (d) on Schedule DET-1,  
16 Page 2.

17

18 For FY 2011, following review and discussion, the Company and Staff agreed to a total  
19 O&M budget of \$1,552,000, as shown on Page 2, Line 3, which reflects \$134,000 for  
20 REP-related O&M and \$1,418,000 for VMP-related O&M. As indicated in the 2011  
21 REP/VMP Report and reflected on Line 1, the Company incurred \$1,245,985 in  
22 REP/VMP O&M expenses during FY 2011. This is \$114,015 less than the base rate

1 recovery amount of \$1,360,000 reflected in rates, as shown on Line 9. Partially offsetting  
2 the FY 2011 spending is \$644,098 in reimbursements from FairPoint related to its share  
3 of vegetation management expenses initially incurred by the Company and then billed to  
4 FairPoint, which are being passed back to customers on Line 11. The Company is  
5 therefore seeking recovery of the total O&M spending, net of FairPoint reimbursements,  
6 or \$601,887, as shown on Line 15. This incremental O&M expense is below the base  
7 recovery amount of \$1,360,000 reflected in rates, resulting in a net O&M credit for FY  
8 2011 of \$758,113 on Line 13, which the Company proposes to refund to customers.

9  
10 **IV. REP CAPITAL INVESTMENT ALLOWANCE**

11 **Q. Is the calculation of the FY 2011 REP Capital Investment Allowance included in the**  
12 **Company's proposal consistent with the terms of the Settlement Agreement?**

13 A. Yes, it is. The Company is proposing to recover the incremental revenue requirement of  
14 \$102,941 associated with \$610,835 of capital investments in FY 2011. The calculation  
15 mirrors the calculation agreed to in the Settlement Agreement as shown in Exhibit GSE-  
16 8, Attachment 1 of that document.

17  
18 **Q. Did the Company make any changes to the revenue requirement calculation from**  
19 **that contained in the Settlement Agreement?**

20 A. Yes. The Company updated the composite depreciation rate and the property tax rate to  
21 reflect the actual data for calendar year 2010 ("CY 2010"). These new rates are reflected  
22 in column (d) on Schedule DET-1, page 3, Lines 4 and 35, respectively.

1 **Q. How has the Company determined the capital investment amount included in the**  
2 **REP Capital Investment Allowance revenue requirement calculation contained on**  
3 **Schedule DET-1?**

4 A. Pursuant to the terms of the Settlement Agreement, Exhibit GSE-8 at Page 7,

5 “The Company shall track all capital investments made in accordance with  
6 the REP for each fiscal year including FY 2008 through 2013. At the same  
7 time that the Company makes its reconciliation filing for the REP/VMP  
8 Adjustment reconciliation, the Company shall file a report detailing the  
9 actual amount of capital investments made in accordance with  
10 implementing the REP during the prior fiscal year. The report shall  
11 include a calculation of the revenue requirement for adding these  
12 additional capital investments into rate base, using the imputed capital  
13 structure and rates set forth in Section 3.(C) of the Rate Plan, and as  
14 illustrated on the accompanying Attachment 1. Provided that the  
15 investments were made in accordance with the REP, the Company will be  
16 allowed, subject to Commission approval, a permanent increase in its  
17 distribution rates to recover the annual revenue requirement for those  
18 investments. This permanent REP Capital Investment Allowance will take  
19 effect for usage on and after July 1, at the same time as any REP/VMP  
20 Adjustments are implemented for the preceding fiscal year as discussed in  
21 section (D) above.”

22  
23 As indicated in the 2011 REP/VMP Report, the Company invested \$610,835 in REP  
24 capital investments in FY 2011. The Settlement Agreement provides for the recovery,  
25 subject to Commission approval, of the revenue requirement associated with actual  
26 capital investment. Therefore, the Company is basing the revenue requirement  
27 calculation on the \$610,835 of actual capital investment for FY 2011.

1 **Q. Would you please walk through the revenue requirement calculation contained on**  
2 **Page 3 of Schedule DET-1?**

3 A. Certainly. Lines 1 through 28 calculate the rate base upon which the Company's return  
4 allowance is calculated. As shown on Line 1 in column (d), the FY 2011 annual REP  
5 program spend is \$610,835, as previously discussed, resulting in the cumulative amount  
6 of \$2,937,078, as shown on Line 2 of that same column. Lines 4 through 22 calculate the  
7 deferred tax reserve based on the depreciation rate timing difference between book and  
8 tax depreciation rates. The composite book depreciation rate was based on actual data for  
9 CY 2010 and equals 3.73 percent. The tax depreciation rate reflects the MACRS 20 year  
10 utility property year 1 rate of 3.75 percent, year 2 rate of 7.22 percent, year 3 rate of 6.68  
11 percent, and year 4 rate of 6.18 percent. The resulting cumulative book/tax timing  
12 difference is \$148,531 on Line 19. The cumulative deferred tax reserve equals the  
13 cumulative book/tax timing difference times the effective federal and state tax rate,  
14 incorporating a 8.5 percent state rate, of 40.53 percent, or \$60,192 on Line 22. The  
15 Company's year-end net rate base of \$2,591,847, upon which the Company's return  
16 allowance is calculated, is shown on Line 28 and consists of the cumulative REP capital  
17 investment through FY 2011, or \$2,937,078, accumulated book depreciation of \$285,039,  
18 and accumulated deferred tax reserves of \$60,192, as shown on Lines 25 through 27,  
19 respectively.

1 **Q. Please continue.**

2 A. As agreed to in the Settlement Agreement, the return allowance for the REP capital  
3 investment allowance for each July 1 rate adjustment is based on the prior fiscal year-end  
4 rate base times the stipulated pre-tax weighted average cost of capital from the Settlement  
5 Agreement as shown on Lines 43 through 49, or 11.91 percent. The resulting return  
6 allowance equals the fiscal year-end rate base of \$2,591,847 times the stipulated pre-tax  
7 return rate of 11.91 percent, or \$308,634, as shown on Line 33. Annual depreciation  
8 expense of \$109,645 and property taxes of \$89,945, on Lines 34 and 35, respectively, are  
9 added to the return amount to arrive at the total revenue requirement of \$508,183 on  
10 Line 36. The property tax amount is based on the actual ratio of municipal tax expense to  
11 net plant in service for CY 2010 applied to the fiscal year-end net plant in service, or the  
12 sum of Lines 25 and 26. The incremental FY 2011 revenue requirement amount of  
13 \$102,941, representing the cumulative revenue requirement less the previous year's  
14 cumulative revenue requirement, is then shown on Line 40 in column (e).

15

16 **Q. What is reflected in the subsequent columns, or columns (e) and (f), shown on Page**  
17 **3 of Schedule DET-1?**

18 A. The Company provided its proposed REP and VMP budgets and plan for fiscal year 2012  
19 ("FY 2012") to Staff on February 15, 2011, to which the Staff agreed. The REP capital  
20 investment target for FY 2012 is \$689,000. The calculation of the cumulative revenue  
21 requirement which was previously described for FY 2011 was repeated for FY 2012, with  
22 incremental rate adjustments in subsequent fiscal years shown on Line 40.

1 V. **SUMMARY**

2 Q. **Would you please summarize Schedule DET-1 to your testimony?**

3 A. Yes. Schedule DET-1, Page 1 provides a summary of estimated rate adjustments for the  
4 Incremental VMP/REP O&M spend and REP capital investment allowance. The  
5 amounts in columns (b) through (e) represent actual data for the years 2008 through  
6 2011. The column titled "07/01/2011" is the basis for the rate adjustment to be  
7 implemented on July 1, 2011. The annual rate adjustment for FY 2012 in column (f) is  
8 illustrative only and equals the sum of the previously described annual Incremental  
9 VMP/REP O&M spend reflected on Page 2 plus the annual REP capital investment  
10 allowance reflected on Page 3. This subsequent year rate adjustment will be the subject  
11 of a future annual filing before the Commission.

12

13 In summary, for FY 2011, the incremental annual revenue requirement to be refunded  
14 through the Company's distribution rates commencing July 1, 2011 amounts to  
15 \$1,702,942, as shown on Page 1, Column (e), Line 9, plus interest of \$18,446, as shown  
16 on Schedule DET-2, Page 3, Line 2.

1 **VI. RATE DESIGN AND RECONCILIATION**

2 **Q. Is the procedure for adjusting distribution rates for the REP Capital Investment**  
3 **Allowance and REP/VMP Adjustment Provision consistent with the terms of the**  
4 **Settlement Agreement?**

5 A. Yes. The rate design in Schedule DET-2 of my testimony is consistent with the terms of  
6 the Settlement Agreement and is the same procedure used to adjust base distribution  
7 charges for the rate reductions, pursuant to the Settlement Agreement, which took place  
8 for usage on and after August 11, 2007 and for usage on and after January 1, 2008. It is  
9 also the same procedure used to adjust base distribution rates associated with the REP  
10 Capital Investment Allowance implemented for usage on and after August 1, 2009 and  
11 for usage on and after July 1, 2010 following Commission approval of the Company's  
12 REP Capital Allowance for fiscal year 2009 ("FY 2009") in Order No. 24,998 in Docket  
13 DE 09-094 and for fiscal year 2010 in Order No. 25,126 in Docket DE 10-140.

14

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

17 A. The procedure for adjusting distribution rates is presented in Schedule DET-2. As  
18 presented on Page 1 of Schedule DET-2, the Company simply divides the capital  
19 investment allowance related to the REP on Line (1) by the forecasted annual distribution  
20 revenue for the twelve month period ended June 30, 2012 on Line (2) to calculate the  
21 percentage increase on Line (3) which is then applied to each of the Company's base

1 distribution charge components. The calculation of the forecasted annual distribution  
2 revenue is presented on Page 2 of Schedule DET-2.

3  
4 **Q. Please describe the procedure for calculating the REP/VMP Adjustment Factor.**

5 A. The procedure for calculating the REP/VMP Adjustment Factor is also presented in  
6 Schedule DET-2. As presented on Page 3 of Schedule DET-2, the Company simply  
7 divides incremental O&M expense related to the REP and VMP, including interest on  
8 Line (3), by the Company's estimated kWh deliveries for the twelve month period ended  
9 June 30, 2012 on Line (4) to calculate the adjustment factor on Line (5) which is then  
10 applied to all kWh's billed to customers. The calculation of interest is presented on Page  
11 4 of Schedule DET-2. The calculation of the new base distribution rates is presented on  
12 Page 5 of Schedule DET-2.

13  
14 **Q. Has the Company included a reconciliation of the existing REP/VMP Adjustment**  
15 **Factor which was in effect August 1, 2009 through June 30, 2010?**

16 A. Yes. Pursuant to the Settlement Agreement, this reconciliation is only associated with  
17 the recovery (or refund) of approved incremental O&M expense. This reconciliation is  
18 presented on Page 1 of Schedule DET-3. Of the \$113,832 of FY 2009 incremental O&M  
19 expense above base O&M expense to be collected through the REP/VMP Adjustment  
20 Factor of \$0.00014 per kWh, \$111,332, was collected through June 2010. The remaining  
21 balance of \$5,629 is reflected as an adjustment in the reconciliation of the currently  
22 effective REP/VMP Adjustment Factor in the month of July 2010.

1 **Q. Has the Company included a reconciliation of the existing REP/VMP Adjustment**  
2 **Factor?**

3 A. Yes. Pursuant to the Settlement Agreement, this reconciliation is only associated with  
4 the recovery (or refund) of approved incremental O&M expense. This reconciliation is  
5 presented on Page 2 of Schedule DET-3. Of the \$1,047,770 of FY 2010 incremental  
6 O&M expense above base O&M expense to be collected through the currently effective  
7 REP/VMP Adjustment Factor of \$0.00125 per kWh, \$894,060 has been collected through  
8 April 2011. Any remaining balance after the end of the recovery period, positive or  
9 negative, will be reflected as an adjustment in the reconciliation of the proposed  
10 REP/VMP Adjustment Factor in the month of July 2011.

11

12 **VII. EFFECTIVE DATE, BILL IMPACT, AND TARIFF PAGES**

13 **Q. How and when is the Company proposing that these rate changes be implemented?**

14 A. Consistent with the Commission's rules on the implementation of rate changes, the  
15 Company is proposing that these distribution rate changes be made effective for usage on  
16 and after July 1, 2011.

17

18 **Q. Has the Company determined the impact of these rate changes on customer bills?**

19 A. Yes. These bill impacts are included as Schedule DET-4. Schedule DET-4 shows that  
20 for a typical residential 500 kilowatt-hour Default Service customer, the bill impact of the  
21 rates proposed for July 1, 2011, as compared to rates in effect today, is a bill decrease of  
22 \$0.95, or 1.5 percent, from \$63.77 to \$62.82. In addition, a bill comparison for a Default

1 Service residential customer with an average kilowatt-hour usage of 681, which is the  
2 average monthly usage over the 12 months ending April 2011, has also been included on  
3 Page 1 of Schedule DET-4. The total bill impact of the rates proposed in this filing, as  
4 compared to rates in effect today, is a bill decrease of \$1.28 or 1.5 percent, from \$87.65  
5 to \$86.37. For other customers, decreases range from 1.4 percent to 2.2 percent.  
6

7 **Q. Has the Company prepared revised tariff pages reflecting the proposed rates?**

8 A. Yes. The revised tariff pages are set forth in Schedule DET-5. The Company anticipates  
9 proposing additional rate changes for July 1, 2011. Consequently, the Company is not  
10 providing a revised Summary of Rates tariff page 84 in this filing. Once the Commission  
11 has rendered a decision on all rate changes proposed for July 1, 2011, the Company will  
12 file a compliance Summary of Rates tariff page 84 that reflect all approved rates.  
13

14 **VIII. CONCLUSION**

15 **Q. Does that conclude your testimony?**

16 A. Yes, it does.



Schedules  
Table of Contents

Schedule DET-1	Revenue Requirements
Schedule DET-2	Rate Design
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Granite State Electric Company  
d/b/a National Grid  
Docket No. DE 11-\_\_  
Witness: D.E. Tufts

**Schedule DET-1**  
**Revenue Requirement**

**Granite State Electric Company  
Incremental REP Program  
Annual Rate Changes  
FY 2011**

	<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>	
	(a)	(b)	(c)	(d)	(e)	(f)	
<b><u>Annual Incremental Rate Adjustments</u></b>							
1	REP and VMP O&M Program, including FairPoint Reimbursements	\$0	\$0	\$113,832	\$1,047,770	(\$758,113)	\$0
2							
3	REP Capital Program	\$0	\$165,840	\$75,740	\$163,662	\$102,941	\$106,640
4							
5	Total for Fiscal Year	\$0	\$165,840	\$189,572	\$1,211,432	(\$655,172)	\$106,640
6							
7	Termination of Prior Period O&M Recovery	\$0	\$0	\$0	(\$113,832)	(\$1,047,770)	\$758,113
8							
9	Net Change in Recovery	\$0	\$165,840	\$189,572	\$1,097,600	(\$1,702,942)	\$864,753

Notes:

Line 1 From Page 2 of 3, Line 13.  
Line 3 From Page 3 of 3, Line 40.  
Line 5 Line 1 + Line 3.  
Line 7 Line 1  
Line 9 Line 5 + Line 7



Granite State Electric Company  
d/b/a National Grid  
Docket No. DE 11-\_\_  
Witness: D.E. Tufts

**Schedule DET-2**  
**Rate Design**

Granite State Electric Company  
Rate Settlement  
Procedure for Adjusting Distribution Rates for Capital Investment Allowance  
Calculation of Percentage Adjustment to Distribution Rates  
Rates Effective July 1, 2011

(1) Increase in Annual Revenue Requirement	\$102,941
(2) Forecasted Base Distribution Revenue	\$20,778,383
(3) Percentage of Adjustment to Distribution Rates	0.50%

- (1) Exhibit DET- 1, Page 1
- (2) Page 2, Forecasted Billing Units for the applicable period multiplied by current rates.
- (3) Line (1) ÷ Line (2)

Granite State Electric Company  
Rate Settlement  
Procedure for Adjusting Distribution Rates for Capital Investment Allowance  
Calculation of Percentage Adjustment to Distribution Rates  
Forecasted Distribution Revenue for Period from July 2011 through June 2012

Rate Class	Distribution Rate Component	Current	Forecasted	Forecasted
		Base Distribution Charges	Units	Revenue
		(a)	(b)	(c)
D	Customer Charge	\$4.35	412,798	\$1,795,672
	1st 250 kWh	\$0.01641	94,575,891	\$1,551,990
	Excess 250 kWh	\$0.04275	176,619,987	\$7,550,504
	Off Peak kWh	\$0.01570	6,797,380	\$106,719
	Farm kWh	\$0.02553	811,210	\$20,710
	D-6 kWh	\$0.01641	923,101	\$15,148
	Interruptible Credit IC-1	(\$4.84)	2,484	(\$12,023)
	Interruptible Credit IC-2	(\$6.47)	408	(\$2,640)
D-10	Customer Charge	\$7.47	4,921	\$36,761
	On Peak kWh	\$0.04746	1,892,064	\$89,797
	Off Peak kWh	\$0.00000		
G-1	Customer Charge	\$92.99	1,766	\$164,250
	Demand Charge	\$4.06	621,645	\$2,523,880
	On Peak kWh	\$0.00134	162,653,854	\$217,956
	Off Peak kWh	\$0.00000		
	Credit for High Voltage Delivery > 2.4 kv	(\$0.26)	325,183	(\$84,547)
	Credit for High Voltage Metering			(\$43,010)
	Optional Charge			\$20,633
G-2	Customer Charge	\$24.89	10,119	\$251,857
	Demand Charge	\$4.48	473,475	\$2,121,167
	All kWh	\$0.00031	160,192,473	\$49,660
	Credit for High Voltage Delivery > 2.4 kv	(\$0.26)	379	(\$98)
	Credit for High Voltage Metering			(\$485)
	Optional Charge			\$3,149
G-3	Customer Charge	\$5.51	67,521	\$372,041
	All kWh	\$0.03076	97,641,600	\$3,003,456
	Minimum Charge > 25 kVA	\$1.62		
M	Luminaire Charge			
	<u>Description</u>			
	LUM INC RWY 103W	\$67.52	26	\$1,756
	LUM MV RWY 100W	\$48.87	265	\$12,951
	LUM MV RWY 175W	\$59.42	365	\$21,688
	LUM MV RWY 400W	\$112.38	65	\$7,305
	LUM MV RWY 1000W	\$213.22	1	\$213
	LUM MV FLD 400W	\$124.28	37	\$4,598
	LUM MV FLD 1000W	\$214.61	1	\$215
	LUM HPS RWY 50W	\$50.58	2329	\$117,801
	LUM HPS RWY 100W	\$61.32	1687	\$103,447
	LUM HPS RWY 250W	\$107.67	591	\$63,633
	LUM HPS RWY 400W	\$140.29	251	\$35,213
	LUM HPS FLD 250W	\$108.63	297	\$32,263
	LUM HPS FLD 400W	\$149.96	477	\$71,531
	LUM HPS POST 100W	\$70.62	380	\$26,836
	Pole and Accessory Charge			
	<u>Description</u>			
	POLE - WOOD	\$59.60	134	\$7,986
	POLE FIBER PT <25FT	\$61.72	248	\$15,307
	POLE FIBER RWY <25FT	\$104.67	123	\$12,874
	POLE FIBER RWY =>25	\$174.87	0	\$0
	POLE METAL EMBEDDED	\$124.81	97	\$12,107
	POLE METAL =>25FT	\$150.39	129	\$19,400
	All kWh	\$0.00000		
T	Customer Charge	\$5.63	14,701	\$82,767
	All kWh	\$0.02009	19,030,616	\$382,325
	Interruptible Credit IC-1	(\$4.84)	3,264	(\$15,798)
	Interruptible Credit IC-2	(\$6.47)	108	(\$699)
V	Minimum Charge	\$5.88	233	\$1,371
	All kWh	\$0.02838	308,165	\$8,746
				\$20,778,383
(a)	Per currently effective tariffs			
(b)	Company Forecast			
(c)	Column (a) x Column (b)			

Granite State Electric Company  
Rate Settlement  
Calculation of Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor  
Rates Effective July 1, 2011

(1) O&M Expense Below Base O&M Expense	(\$758,113)
(2) Estimated Interest During Recovery Period	<u>(\$18,446)</u>
(3) O&M Expense Below Base O&M Expense Including Interest	(\$776,559)
(4) Estimated kWh deliveries	926,782,640
(5) Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor	(\$0.00083)

- (1) Exhibit DET- 1, Page 1
- (2) Page 4
- (3) Line (1) + Line (2)
- (4) Per Company forecast
- (5) Line (3) ÷ Line (4), truncated after 5 decimal places

Granite State Electric Company  
Calculation of Interest on FY 2011 Incremental O&M Expense Above Base O&M Expense

	Beginning Balance With Interest (a)	Estimated Recovery (b)	Ending Balance (c)	Balance Subject to Interest (d)	Effective Interest Rate (e)	Interest (f)	Cumulative Interest (g)
April 2011	\$758,113		\$758,113	\$758,113	3.25%	\$2,023	\$2,023
May	\$760,136		\$760,136	\$760,136	3.25%	\$2,029	\$4,052
June	\$762,165		\$762,165	\$762,165	3.25%	\$2,034	\$6,086
July	\$764,199	(\$63,683)	\$700,516	\$732,357	3.25%	\$1,955	\$8,041
August	\$702,470	(\$63,861)	\$638,609	\$670,540	3.25%	\$1,790	\$9,830
September	\$640,399	(\$64,040)	\$576,359	\$608,379	3.25%	\$1,624	\$11,454
October	\$577,983	(\$64,220)	\$513,762	\$545,872	3.25%	\$1,457	\$12,911
November	\$515,219	(\$64,402)	\$450,817	\$483,018	3.25%	\$1,289	\$14,200
December	\$452,106	(\$64,587)	\$387,519	\$419,813	3.25%	\$1,120	\$15,320
January 2012	\$388,640	(\$64,773)	\$323,866	\$356,253	3.25%	\$951	\$16,271
February	\$324,817	(\$64,963)	\$259,854	\$292,335	3.25%	\$780	\$17,051
March	\$260,634	(\$65,158)	\$195,475	\$228,055	3.25%	\$609	\$17,660
April	\$196,084	(\$65,361)	\$130,723	\$163,403	3.25%	\$436	\$18,096
May	\$131,159	(\$65,579)	\$65,579	\$98,369	3.25%	\$263	\$18,358
June	\$65,842	(\$65,842)	\$0	\$32,921	3.25%	\$88	\$18,446

- (a) April 2011 per Page 3, Line (1); all other months = prior month Column (c) + prior month Column (f)  
(b) Column (a) ÷ number of remaining months in recovery period  
(c) Column (a) + Column (b)  
(d) Average of Column (a) and Column (c)  
(e) Interest rate on customer deposits  
(f) Column (d) x [ (1 + Column (e)) ^ (1 ÷ 12) - 1 ]  
(g) Prior month Column (g) + Current month Column (f)

Granite State Electric Company  
Rate Settlement  
Procedure for Adjusting Distribution Rates for Capital Investment Allowance  
Rates Effective July 1, 2011

Rate Class	Distribution Rate Component	Current	Proposed	Proposed
		Base Distribution	Distribution	Base Distribution
		Charges	% Increase	Charges
		(a)	(b)	(c)
D	Customer Charge	\$4.35	0.50%	\$4.37
	1st 250 kWh	\$0.01641	0.50%	\$0.01649
	Excess 250 kWh	\$0.04275	0.50%	\$0.04296
	Off Peak kWh	\$0.01570	0.50%	\$0.01577
	Farm kWh	\$0.02553	0.50%	\$0.02565
	D-6 kWh	\$0.01641	0.50%	\$0.01649
	Interruptible Credit IC-1	(\$4.84)	0.50%	(\$4.86)
	Interruptible Credit IC-2	(\$6.47)	0.50%	(\$6.50)
D-10	Customer Charge	\$7.47	0.50%	\$7.50
	On Peak kWh	\$0.04746	0.50%	\$0.04769
	Off Peak kWh	\$0.00000	0.50%	\$0.00000
G-1	Customer Charge	\$92.99	0.50%	\$93.45
	Demand Charge	\$4.06	0.50%	\$4.08
	On Peak kWh	\$0.00134	0.50%	\$0.00134
	Off Peak kWh	\$0.00000	0.50%	\$0.00000
	Credit for High Voltage Delivery > 2.4 kv	(\$0.26)	0.50%	(\$0.26)
G-2	Customer Charge	\$24.89	0.50%	\$25.01
	Demand Charge	\$4.48	0.50%	\$4.50
	All kWh	\$0.00031	0.50%	\$0.00031
	Credit for High Voltage Delivery > 2.4 kv	(\$0.26)	0.50%	(\$0.26)
G-3	Customer Charge	\$5.51	0.50%	\$5.53
	All kWh	\$0.03076	0.50%	\$0.03091
	Minimum Charge > 25 kVA	\$1.62	0.50%	\$1.62
M	Luminaire Charge			
	<u>Description</u>			
	LUM INC RWY 103W	\$67.52	0.50%	\$67.85
	LUM MV RWY 100W	\$48.87	0.50%	\$49.11
	LUM MV RWY 175W	\$59.42	0.50%	\$59.71
	LUM MV RWY 400W	\$112.38	0.50%	\$112.94
	LUM MV RWY 1000W	\$213.22	0.50%	\$214.28
	LUM MV FLD 400W	\$124.28	0.50%	\$124.90
	LUM MV FLD 1000W	\$214.61	0.50%	\$215.68
	LUM HPS RWY 50W	\$50.58	0.50%	\$50.83
	LUM HPS RWY 100W	\$61.32	0.50%	\$61.62
	LUM HPS RWY 250W	\$107.67	0.50%	\$108.20
	LUM HPS RWY 400W	\$140.29	0.50%	\$140.99
	LUM HPS FLD 250W	\$108.63	0.50%	\$109.17
	LUM HPS FLD 400W	\$149.96	0.50%	\$150.70
	LUM HPS POST 100W	\$70.62	0.50%	\$70.97
	Pole and Accessory Charge			
	<u>Description</u>			
	POLE – WOOD	\$59.60	0.50%	\$59.89
	POLE FIBER PT <25FT	\$61.72	0.50%	\$62.02
	POLE FIBER RWY <25FT	\$104.67	0.50%	\$105.19
D	\$174.87	0.50%	\$175.74	
POLE METAL EMBEDDED	\$124.81	0.50%	\$125.43	
POLE METAL =>25FT	\$150.39	0.50%	\$151.14	
All kWh	\$0.00000	0.50%	\$0.00000	
T	Customer Charge	\$5.63	0.50%	\$5.65
	All kWh	\$0.02009	0.50%	\$0.02019
	Interruptible Credit IC-1	(\$4.84)	0.50%	(\$4.86)
	Interruptible Credit IC-2	(\$6.47)	0.50%	(\$6.50)
V	Minimum Charge	\$5.88	0.50%	\$5.90
	All kWh	\$0.02838	0.50%	\$0.02852
(a)	Per currently effective tariffs			
(b)	Page 1, Line (3)			
(c)	Column (a) x (1+Column (b))			



Granite State Electric Company  
d/b/a National Grid  
Docket No. DE 11-\_\_  
Witness: D.E. Tufts

**Schedule DET-3**  
**Reconciliation of Recovery of FY 2010 Incremental**  
**O&M Expense Above Base O&M Expense**

Granite State Electric Company  
Reconciliation of Recovery of FY 2009 Incremental O&M Expense Above Base O&M Expense

	Beginning Balance With Interest (a)	Recovery (b)	Adjustment (c)	Ending Balance (d)	Balance Subject to Interest (e)	Effective Interest Rate (f)	Interest (g)	Cumulative Interest (h)
April 2009	(\$113,832)			(\$113,832)	(\$113,832)	3.25%	(\$304)	(\$304)
May	(\$114,136)			(\$114,136)	(\$114,136)	3.25%	(\$305)	(\$608)
June	(\$114,440)			(\$114,440)	(\$114,440)	3.25%	(\$305)	(\$914)
July	(\$114,746)			(\$114,746)	(\$114,746)	3.25%	(\$306)	(\$1,220)
August	(\$115,052)	\$5,155		(\$109,897)	(\$112,474)	3.25%	(\$300)	(\$1,520)
September	(\$110,197)	\$10,478		(\$99,719)	(\$104,958)	3.25%	(\$280)	(\$1,800)
October	(\$99,999)	\$9,683		(\$90,316)	(\$95,158)	3.25%	(\$254)	(\$2,054)
November	(\$90,570)	\$9,717		(\$80,854)	(\$85,712)	3.25%	(\$229)	(\$2,283)
December	(\$81,082)	\$10,316		(\$70,766)	(\$75,924)	3.25%	(\$203)	(\$2,486)
January 2010	(\$70,969)	\$11,691		(\$59,278)	(\$65,124)	3.25%	(\$174)	(\$2,659)
February	(\$59,452)	\$9,888		(\$49,564)	(\$54,508)	3.25%	(\$145)	(\$2,805)
March	(\$49,709)	\$9,959		(\$39,750)	(\$44,730)	3.25%	(\$119)	(\$2,924)
April	(\$39,869)	\$9,672		(\$30,197)	(\$35,033)	3.25%	(\$94)	(\$3,018)
May	(\$30,291)	\$9,139		(\$21,152)	(\$25,721)	3.25%	(\$69)	(\$3,086)
June	(\$21,220)	\$10,832		(\$10,388)	(\$15,804)	3.25%	(\$42)	(\$3,129)
July	(\$10,431)	\$4,802		(\$5,629)	(\$8,030)	3.25%	(\$21)	(\$3,150)
		\$111,332						

- (a) Revised Schedule DET-2, page 4, Docket DE 09-094  
(b) Company Billing Reports  
(c)  
(d) Column (a) + Column (b)  
(e) Average of Column (a) and Column (d)  
(f) Interest rate on customer deposits  
(g)  $\text{Column (e)} \times [ (1 + \text{Column (f)}) ^ (1 \div 12) - 1 ]$   
(h) Prior month Column (h) + Current month Column (g)

Granite State Electric Company  
Reconciliation of Recovery of FY 2010 Incremental O&M Expense Above Base O&M Expense

	Beginning Balance With Interest (a)	Recovery (b)	Adjustment (c)	Ending Balance (d)	Balance Subject to Interest (e)	Effective Interest Rate (f)	Interest (g)	Cumulative Interest (h)
April 2010	(\$1,047,770)			(\$1,047,770)	(\$1,047,770)	3.25%	(\$2,796)	(\$2,796)
May	(\$1,050,566)			(\$1,050,566)	(\$1,050,566)	3.25%	(\$2,804)	(\$5,600)
June	(\$1,053,370)			(\$1,053,370)	(\$1,053,370)	3.25%	(\$2,811)	(\$8,411)
July	(\$1,056,181)	\$56,734	(\$5,629)	(\$1,005,076)	(\$1,030,629)	3.25%	(\$2,751)	(\$11,162)
August	(\$1,007,826)	\$103,905		(\$903,921)	(\$955,874)	3.25%	(\$2,551)	(\$13,713)
September	(\$906,472)	\$95,463		(\$811,009)	(\$858,741)	3.25%	(\$2,292)	(\$16,005)
October	(\$813,301)	\$85,060		(\$728,241)	(\$770,771)	3.25%	(\$2,057)	(\$18,062)
November	(\$730,298)	\$83,841		(\$646,457)	(\$688,378)	3.25%	(\$1,837)	(\$19,899)
December	(\$648,294)	\$88,677		(\$559,618)	(\$603,956)	3.25%	(\$1,612)	(\$21,511)
January 2011	(\$561,230)	\$101,245		(\$459,985)	(\$510,607)	3.25%	(\$1,363)	(\$22,873)
February	(\$461,348)	\$97,901		(\$363,447)	(\$412,397)	3.25%	(\$1,101)	(\$23,974)
March	(\$364,548)	\$92,526		(\$272,022)	(\$318,285)	3.25%	(\$849)	(\$24,823)
April	(\$272,871)	\$88,709		(\$184,162)	(\$228,517)	3.25%	(\$610)	(\$25,433)
May	(\$184,772)	\$0		(\$184,772)	(\$184,772)	3.25%	(\$493)	(\$25,926)
June	(\$185,265)	\$0		(\$185,265)	(\$185,265)	3.25%	(\$494)	(\$26,421)
July	(\$185,759)	\$0		(\$185,759)	(\$185,759)	3.25%	(\$496)	(\$26,917)
		\$894,060						

- (a) Schedule DET-2, page 4, Docket DE 10-140  
(b) Company Billing Reports  
(c) Page 1  
(d) Column (a) + Column (b)  
(e) Average of Column (a) and Column (d)  
(f) Interest rate on customer deposits  
(g)  $\text{Column (e)} \times [ (1 + \text{Column (f)}) ^ (1 \div 12) - 1 ]$   
(h) Prior month Column (h) + Current month Column (g)



Granite State Electric Company  
d/b/a National Grid  
Docket No. DE 11-\_\_  
Witness: D.E. Tufts

**Schedule DET-4**  
**Typical Bill Impacts**

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate D Default Service Customers  
 Without Water Heater Control  
 0% Off-Peak

kWh Split  
 On-Peak 100.00%  
 Off-Peak 0.00%

Monthly kWh	On-Peak kWh	Off-Peak kWh	(1)		(2)		(1) vs (2)			
			Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service	Retail Delivery	
200	200	0	\$25.48	\$13.36	\$12.12	\$25.10	\$13.36	\$11.74	(\$0.38)	-1.5%
350	350	0	\$43.97	\$23.38	\$20.59	\$43.30	\$23.38	\$19.92	(\$0.67)	-1.5%
<b>500</b>	<b>500</b>	<b>0</b>	<b>\$63.77</b>	<b>\$33.40</b>	<b>\$30.37</b>	<b>\$62.82</b>	<b>\$33.40</b>	<b>\$29.42</b>	<b>(\$0.95)</b>	<b>-1.5%</b>
<b>681</b>	<b>681</b>	<b>0</b>	<b>\$87.65</b>	<b>\$45.49</b>	<b>\$42.16</b>	<b>\$86.37</b>	<b>\$45.49</b>	<b>\$40.88</b>	<b>(\$1.28)</b>	<b>-1.5%</b>
750	750	0	\$96.76	\$50.10	\$46.66	\$95.35	\$50.10	\$45.25	(\$1.41)	-1.5%
1,000	1,000	0	\$129.76	\$66.80	\$62.96	\$127.87	\$66.80	\$61.07	(\$1.89)	-1.5%

Proposed Rates

Customer Charge		\$4.35				\$4.37
Distribution Charge						
1st 250 kWh	kWh x	\$0.01812				\$0.01612
excess of 250 kWh	kWh x	\$0.04446				\$0.04259
Off Peak kWh	kWh x	\$0.01741				\$0.01540
Storm Adjustment Factor	kWh x	\$0.00040				\$0.00040
Transmission Charge	kWh x	\$0.01628				\$0.01628
Stranded Cost Charge	kWh x	\$0.00020				\$0.00020
System Benefits Charge	kWh x	\$0.00330				\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055				\$0.00055

Supplier Services

Default Service	kWh x	\$0.06680				\$0.06680
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Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate D Default Service Customers  
 With 6 Hour Water Heater Control

kWh Split  
 On-Peak 80.00%  
 Off-Peak 20.00%

Monthly KWh	On-Peak kWh	Off-Peak kWh	(1)		(2)		(1) vs (2)			
			Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service	Retail Delivery	
200	160	40	\$20.62	\$13.36	\$7.26	\$20.22	\$13.36	\$6.86	(\$0.40)	-1.9%
350	280	70	\$37.23	\$23.38	\$13.85	\$36.54	\$23.38	\$13.16	(\$0.69)	-1.9%
500	400	100	\$56.22	\$33.40	\$22.82	\$55.24	\$33.40	\$21.84	(\$0.98)	-1.7%
750	600	150	\$87.86	\$50.10	\$37.76	\$86.41	\$50.10	\$36.31	(\$1.45)	-1.7%
1,000	800	200	\$119.50	\$66.80	\$52.70	\$117.57	\$66.80	\$50.77	(\$1.93)	-1.6%

Present Rates

Customer Charge		\$4.35
Distribution Charge		
1st 250 kWh	kWh x	\$0.01812
excess of 250 kWh	kWh x	\$0.04446
Off Peak kWh	kWh x	\$0.01741
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01628
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055
Interruptible Credit #1		(\$4.84)
<u>Supplier Services</u>		
Default Service	kWh x	\$0.06680

Proposed Rates

Customer Charge		\$4.37
Distribution Charge		
1st 250 kWh	kWh x	\$0.01612
excess of 250 kWh	kWh x	\$0.04259
Off Peak kWh	kWh x	\$0.01540
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01628
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055
Interruptible Credit #1		(\$4.86)
<u>Supplier Services</u>		
Default Service	kWh x	\$0.06680

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate D Default Service Customers  
 With 6 Hour Water Heater Control

kWh Split  
 On-Peak 60.00%  
 Off-Peak 40.00%

Monthly KWh	kWh Split		(1)		(2)		(1) vs (2)			
	On-Peak kWh	Off-Peak kWh	Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service	Retail Delivery	Overall Increase (Decrease) Amount %
200	120	80	\$18.95	\$13.36	\$5.59	\$18.54	\$13.36	\$5.18	(\$0.41)	-2.2%
350	210	140	\$34.77	\$23.38	\$11.39	\$34.06	\$23.38	\$10.68	(\$0.71)	-2.0%
500	300	200	\$51.88	\$33.40	\$18.48	\$50.88	\$33.40	\$17.48	(\$1.00)	-1.9%
750	450	300	\$82.17	\$50.10	\$32.07	\$80.69	\$50.10	\$30.59	(\$1.48)	-1.8%
1,000	600	400	\$112.46	\$66.80	\$45.66	\$110.50	\$66.80	\$43.70	(\$1.96)	-1.7%

Present Rates

Customer Charge		\$4.35
Distribution Charge		\$0.00000
1st 250 kWh	kWh x	\$0.01812
excess of 250 kWh	kWh x	\$0.04446
Off Peak kWh	kWh x	\$0.01741
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01628
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055
Interruptible Credit #2		(\$6.47)
<u>Supplier Services</u>		
Default Service	kWh x	\$0.06680

Proposed Rates

Customer Charge		\$4.37
Distribution Charge		\$0.00000
1st 250 kWh	kWh x	\$0.01612
excess of 250 kWh	kWh x	\$0.04259
Off Peak kWh	kWh x	\$0.01540
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01628
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055
Interruptible Credit #2		(\$6.50)
<u>Supplier Services</u>		
Default Service	kWh x	\$0.06680

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate D-10 Default Service Customers

kWh Split  
 On-Peak 80.00%  
 Off-Peak 20.00%

Monthly KWh	kWh Split		(1)		(2)		(1) vs (2)		
	On-Peak kWh	Off-Peak kWh	Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service	Retail Delivery
700	560	140	\$95.13	\$46.76	\$48.37	\$93.83	\$46.76	\$47.07	(\$1.30) -1.4%
1,000	800	200	\$132.68	\$66.80	\$65.88	\$130.81	\$66.80	\$64.01	(\$1.87) -1.4%
1,300	1,040	260	\$170.24	\$86.84	\$83.40	\$167.81	\$86.84	\$80.97	(\$2.43) -1.4%
1,600	1,280	320	\$207.81	\$106.88	\$100.93	\$204.80	\$106.88	\$97.92	(\$3.01) -1.4%
1,900	1,520	380	\$245.37	\$126.92	\$118.45	\$241.79	\$126.92	\$114.87	(\$3.58) -1.5%

	<u>Present Rates</u>	<u>Proposed Rates</u>
Customer Charge	\$7.47	\$7.50
Distribution Charge		
On Peak kWh	kWh x \$0.04926	\$0.04741
Off Peak kWh	kWh x \$0.00180	(\$0.00028)
Storm Adjustment Factor	kWh x \$0.00040	\$0.00040
Transmission Charge	kWh x \$0.01418	\$0.01418
Stranded Cost Charge	kWh x \$0.00021	\$0.00021
System Benefits Charge	kWh x \$0.00330	\$0.00330
Electricity Consumption Tax	kWh x \$0.00055	\$0.00055
<u>Supplier Services</u>		
Default Service	kWh x \$0.06680	\$0.06680

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Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate D-10 Default Service Customers

		kWh Split									
		On-Peak	Off-Peak	70.00%		30.00%					
Monthly KWh	On-Peak kWh	Off-Peak kWh	Total	Present Rates Default Service	Retail Delivery	Total	Proposed Rates Default Service	Retail Delivery	Total	Proposed Rates	Overall Increase (Decrease) %
700	490	210	\$91.81	\$46.76	\$45.05	\$90.49	\$46.76	\$43.73	\$90.49	(\$1.32)	-1.4%
1,000	700	300	\$127.93	\$66.80	\$61.13	\$126.05	\$66.80	\$59.25	\$126.05	(\$1.88)	-1.5%
1,300	910	390	\$164.07	\$86.84	\$77.23	\$161.60	\$86.84	\$74.76	\$161.60	(\$2.47)	-1.5%
1,600	1,120	480	\$200.21	\$106.88	\$93.33	\$197.18	\$106.88	\$90.30	\$197.18	(\$3.03)	-1.5%
1,900	1,330	570	\$236.36	\$126.92	\$109.44	\$232.74	\$126.92	\$105.82	\$232.74	(\$3.62)	-1.5%

	Present Rates	Proposed Rates
Customer Charge	\$7.47	\$7.50
Distribution Charge		
On Peak kWh	kWh x \$0.04926	\$0.04741
Off Peak kWh	kWh x \$0.00180	(\$0.00028)
Storm Adjustment Factor	kWh x \$0.00040	\$0.00040
Transmission Charge	kWh x \$0.01418	\$0.01418
Stranded Cost Charge	kWh x \$0.00021	\$0.00021
System Benefits Charge	kWh x \$0.00330	\$0.00330
Electricity Consumption Tax	kWh x \$0.00055	\$0.00055
<u>Supplier Services</u>		
Default Service	kWh x \$0.06680	\$0.06680

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate D-10 Default Service Customers

kWh Split  
 On-Peak 60.00%  
 Off-Peak 40.00%

Monthly KWh	kWh Split		(1)		(2)		(1) vs (2)		
	On-Peak kWh	Off-Peak kWh	Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service	Retail Delivery
700	420	280	\$88.48	\$46.76	\$41.72	\$87.15	\$46.76	\$40.39	(\$1.33) -1.5%
1,000	600	400	\$123.19	\$66.80	\$56.39	\$121.28	\$66.80	\$54.48	(\$1.91) -1.6%
1,300	780	520	\$157.90	\$86.84	\$71.06	\$155.40	\$86.84	\$68.56	(\$2.50) -1.6%
1,600	960	640	\$192.62	\$106.88	\$85.74	\$189.54	\$106.88	\$82.66	(\$3.08) -1.6%
1,900	1,140	760	\$227.34	\$126.92	\$100.42	\$223.68	\$126.92	\$96.76	(\$3.66) -1.6%

	<u>Present Rates</u>	<u>Proposed Rates</u>
Customer Charge	\$7.47	\$7.50
Distribution Charge		
On Peak kWh	kWh x \$0.04926	\$0.04741
Off Peak kWh	kWh x \$0.00180	(\$0.00028)
Storm Adjustment Factor	kWh x \$0.00040	\$0.00040
Transmission Charge	kWh x \$0.01418	\$0.01418
Stranded Cost Charge	kWh x \$0.00021	\$0.00021
System Benefits Charge	kWh x \$0.00330	\$0.00330
Electricity Consumption Tax	kWh x \$0.00055	\$0.00055
<u>Supplier Services</u>		
Default Service	kWh x \$0.06680	\$0.06680

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate G-3 Default Service Customers

Hours Use

Monthly kWh	(1)		(2)		(1) vs (2)
	Total	Present Rates Default Service	Total	Proposed Rates Default Service	
600	\$77.69	\$40.08	\$76.55	\$40.08	Overall Increase (Decrease) Amount (\$1.14) -1.5%
800	\$101.76	\$53.44	\$100.23	\$53.44	Overall Increase (Decrease) Amount (\$1.53) -1.5%
1,200	\$149.88	\$80.16	\$147.59	\$80.16	Overall Increase (Decrease) Amount (\$2.29) -1.5%
1,500	\$185.99	\$100.20	\$183.11	\$100.20	Overall Increase (Decrease) Amount (\$2.88) -1.5%
2,000	\$246.13	\$133.60	\$242.29	\$133.60	Overall Increase (Decrease) Amount (\$3.84) -1.6%

Proposed Rates

Customer Charge		\$5.51
Distribution Charge	kWh x	\$0.03247
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01659
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Present Rates

Customer Charge		\$5.51
Distribution Charge	kWh x	\$0.03247
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01659
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Supplier Services

Default Service	kWh x	\$0.06680
		\$0.06680

Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate T Default Service Customers

Monthly kWh	(1)		(2)		(1) vs (2) Overall Increase (Decrease) Amount %
	Total	Present Rates Default Service	Total	Proposed Rates Default Service	
600	\$70.06	\$40.08	\$29.98	\$40.08	(\$1.17) -1.7%
800	\$91.53	\$53.44	\$38.09	\$53.44	(\$1.56) -1.7%
1,200	\$134.47	\$80.16	\$54.31	\$80.16	(\$2.36) -1.8%
1,500	\$166.70	\$100.20	\$66.50	\$100.20	(\$2.95) -1.8%
2,000	\$220.37	\$133.60	\$86.77	\$133.60	(\$3.94) -1.8%

Present Rates

Customer Charge					
Distribution Charge	kWh x	\$5.63			\$5.65
Storm Adjustment Factor	kWh x	\$0.02190			\$0.01992
Transmission Charge	kWh x	\$0.00040			\$0.00040
Stranded Cost Charge	kWh x	\$0.01421			\$0.01421
System Benefits Charge	kWh x	\$0.00021			\$0.00021
Electricity Consumption Tax	kWh x	\$0.00330			\$0.00330
	kWh x	\$0.00055			\$0.00055

Proposed Rates

<u>Supplier Services</u>					
Default Service	kWh x	\$0.06680			\$0.06680

Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate V Default Service Customers

Monthly kWh	(1)		(2)		(1) vs (2)
	Total	Present Rates Default Service	Total	Proposed Rates Default Service	
600	\$71.19	\$40.08	\$70.03	\$40.08	-1.6%
800	\$94.93	\$53.44	\$93.37	\$53.44	-1.6%
1,200	\$142.37	\$80.16	\$140.05	\$80.16	-1.6%
1,500	\$177.99	\$100.20	\$175.08	\$100.20	-1.6%
2,000	\$237.30	\$133.60	\$233.42	\$133.60	-1.6%

	Present Rates		Proposed Rates	
	Total	Default Service	Total	Default Service
Minimum Charge		\$5.88		\$5.90
Distribution Charge	kWh x	\$0.03017		\$0.02823
Storm Adjustment Factor	kWh x	\$0.00040		\$0.00040
Transmission Charge	kWh x	\$0.01722		\$0.01722
Stranded Cost Charge	kWh x	\$0.00021		\$0.00021
System Benefits Charge	kWh x	\$0.00330		\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055		\$0.00055
<u>Supplier Services</u>				
Default Service	kWh x	\$0.06680		\$0.06680



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Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate G-1 Default Service Customers

Hours Use	kWh Split		Monthly kWh	On-Peak kWh	Off-Peak kWh	(1)		(2)		(1) vs (2)	
	350 On-Peak	50.00% Off-Peak				Total	Present Rates Default Service	Retail Delivery	Total		Proposed Rates Default Service
kW											
200	70,000	35,000	70,000	35,000	35,000	\$7,109.79	\$4,661.30	\$2,448.49	\$6,968.65	\$2,307.35	(\$141.14)
300	105,000	52,500	105,000	52,500	52,500	\$10,618.19	\$6,991.95	\$3,626.24	\$10,406.25	\$3,414.30	(\$211.94)
400	140,000	70,000	140,000	70,000	70,000	\$14,126.59	\$9,322.60	\$4,803.99	\$13,843.85	\$4,521.25	(\$282.74)
500	175,000	87,500	175,000	87,500	87,500	\$17,634.99	\$11,653.25	\$5,981.74	\$17,281.45	\$5,628.20	(\$353.54)
1,000	350,000	175,000	350,000	175,000	175,000	\$35,176.99	\$23,306.50	\$11,870.49	\$34,469.45	\$11,162.95	(\$707.54)

Present Rates

Proposed Rates

Customer Charge		\$93.45	
Distribution Charge			
On Peak kWh	kWh x	\$0.00322	\$0.00114
Off Peak kWh	kWh x	\$0.00188	(\$0.00020)
Distribution Demand Charge	kW x	\$4.06	\$4.08
Storm Adjustment Factor	kWh x	\$0.00040	\$0.00040
Transmission Charge	kWh x	\$0.01505	\$0.01505
Stranded Cost Charge	kWh x	\$0.00020	\$0.00020
System Benefits Charge	kWh x	\$0.00330	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055	\$0.00055
<u>Supplier Services</u>			
Default Service	kWh x	\$0.06659	\$0.06659

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Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate G-1 Default Service Customers

Hours Use	kWh Split		Monthly kWh	On-Peak kWh	Off-Peak kWh	(1)		(2)		(1) vs (2)	
	450 On-Peak	45.00%				Present Rates	Proposed Rates	Total	Default Service		Retail Delivery
200	90,000	40,500	49,500	\$8,876.56	\$5,993.10	\$2,883.46	\$8,693.82	\$5,993.10	\$2,700.72	(\$182.74)	-2.1%
300	135,000	60,750	74,250	\$13,268.35	\$8,989.65	\$4,278.70	\$12,994.01	\$8,989.65	\$4,004.36	(\$274.34)	-2.1%
400	180,000	81,000	99,000	\$17,660.13	\$11,986.20	\$5,673.93	\$17,294.19	\$11,986.20	\$5,307.99	(\$365.94)	-2.1%
500	225,000	101,250	123,750	\$22,051.92	\$14,982.75	\$7,069.17	\$21,594.38	\$14,982.75	\$6,611.63	(\$457.54)	-2.1%
1,000	450,000	202,500	247,500	\$44,010.84	\$29,965.50	\$14,045.34	\$43,095.30	\$29,965.50	\$13,129.80	(\$915.54)	-2.1%

Present Rates

Proposed Rates

Customer Charge	\$92.99	\$93.45
Distribution Charge		
On Peak kWh	\$0.00322	\$0.00114
Off Peak kWh	\$0.00188	(\$0.00020)
Distribution Demand Charge	\$4.06	\$4.08
Storm Adjustment Factor	\$0.00040	\$0.00040
Transmission Charge	\$0.01505	\$0.01505
Stranded Cost Charge	\$0.00020	\$0.00020
System Benefits Charge	\$0.00330	\$0.00330
Electricity Consumption Tax	\$0.00055	\$0.00055
<u>Supplier Services</u>		
Default Service	\$0.06659	\$0.06659

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Granite State Electric Company  
Proposed July 1, 2011 Default Service Rates  
Calculation of Monthly Typical Bill  
Impact on Rate G-1 Default Service Customers

Hours Use	kWh Split		Monthly kWh	On-Peak kWh	Off-Peak kWh	(1)		(2)		(1) vs (2)			
	450 On-Peak	60.00%				Present Rates	Proposed Rates	Total	Default Service		Retail Delivery	Total	Default Service
200	90,000	36,000	54,000	54,000	54,000	\$8,870.53	\$5,993.10	\$2,877.43	\$8,687.79	\$5,993.10	\$2,694.69	(\$182.74)	-2.1%
300	135,000	54,000	81,000	81,000	81,000	\$13,259.30	\$8,989.65	\$4,269.65	\$12,984.96	\$8,989.65	\$3,995.31	(\$274.34)	-2.1%
400	180,000	72,000	108,000	108,000	108,000	\$17,648.07	\$11,986.20	\$5,661.87	\$17,282.13	\$11,986.20	\$5,295.93	(\$365.94)	-2.1%
500	225,000	90,000	135,000	135,000	135,000	\$22,036.84	\$14,982.75	\$7,054.09	\$21,579.30	\$14,982.75	\$6,596.55	(\$457.54)	-2.1%
1,000	450,000	180,000	270,000	270,000	270,000	\$43,980.69	\$29,965.50	\$14,015.19	\$43,065.15	\$29,965.50	\$13,099.65	(\$915.54)	-2.1%

Present Rates

Proposed Rates

Customer Charge		\$92.99		\$93.45
Distribution Charge				
On Peak kWh	kWh x	\$0.00322		\$0.00114
Off Peak kWh	kWh x	\$0.00188		(\$0.00020)
Distribution Demand Charge	kW x	\$4.06		\$4.08
Storm Adjustment Factor	kWh x	\$0.00040		\$0.00040
Transmission Charge	kWh x	\$0.01505		\$0.01505
Stranded Cost Charge	kWh x	\$0.00020		\$0.00020
System Benefits Charge	kWh x	\$0.00330		\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055		\$0.00055
<u>Supplier Services</u>				
Default Service	kWh x	\$0.06659		\$0.06659

Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate G-2 Default Service Customers

Hours Use		(1)		(2)		(1) vs (2)			
kW	Monthly kWh	Total	Present Rates Default Service	Retail Delivery	Total	Proposed Rates Default Service	Retail Delivery	Overall Increase (Decrease) Amount	%
20	4,000	\$473.13	\$266.36	\$206.77	\$465.33	\$266.36	\$198.97	(\$7.80)	-1.6%
50	10,000	\$1,145.49	\$665.90	\$479.59	\$1,125.81	\$665.90	\$459.91	(\$19.68)	-1.7%
75	15,000	\$1,705.79	\$998.85	\$706.94	\$1,676.21	\$998.85	\$677.36	(\$29.58)	-1.7%
100	20,000	\$2,266.09	\$1,331.80	\$934.29	\$2,226.61	\$1,331.80	\$894.81	(\$39.48)	-1.7%
150	30,000	\$3,386.69	\$1,997.70	\$1,388.99	\$3,327.41	\$1,997.70	\$1,329.71	(\$59.28)	-1.8%

Present Rates

Customer Charge		\$24.89
Distribution Charge	kWh x	\$0.00219
Distribution Demand Charge	kW x	\$4.48
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01643
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Proposed Rates

Customer Charge		\$25.01
Distribution Charge	kWh x	\$0.00011
Distribution Demand Charge	kW x	\$4.50
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01643
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Supplier Services

Default Service	kWh x	\$0.06659
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Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate G-2 Default Service Customers

Hours Use		(1)		(2)		(1) vs (2)			
	250	Total	Present Rates Default Service	Retail Delivery	Total	Proposed Rates Default Service	Retail Delivery	Overall Increase (Decrease) Amount	%
kW	20	\$562.79	\$332.95	\$229.84	\$552.91	\$332.95	\$219.96	(\$9.88)	-1.8%
	50	\$1,369.66	\$832.38	\$537.28	\$1,344.78	\$832.38	\$512.40	(\$24.88)	-1.8%
	75	\$2,042.01	\$1,248.56	\$793.45	\$2,004.63	\$1,248.56	\$756.07	(\$37.38)	-1.8%
	100	\$2,714.39	\$1,664.75	\$1,049.64	\$2,664.51	\$1,664.75	\$999.76	(\$49.88)	-1.8%
	150	\$4,059.16	\$2,497.13	\$1,562.03	\$3,984.28	\$2,497.13	\$1,487.15	(\$74.88)	-1.8%

Present Rates

Customer Charge		\$24.89
Distribution Charge	kWh x	\$0.00219
Distribution Demand Charge	kW x	\$4.48
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01643
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Proposed Rates

Customer Charge		\$25.01
Distribution Charge	kWh x	\$0.00011
Distribution Demand Charge	kW x	\$4.50
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01643
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Supplier Services

Default Service	kWh x	\$0.06659
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Granite State Electric Company  
 Proposed July 1, 2011 Default Service Rates  
 Calculation of Monthly Typical Bill  
 Impact on Rate G-2 Default Service Customers

Hours Use		(1)		(2)		(1) vs (2)			
	300	Total	Present Rates Default Service	Retail Delivery	Total	Proposed Rates Default Service	Retail Delivery	Overall Increase (Decrease) Amount	%
kW	20	6,000	\$399.54	\$252.91	\$640.49	\$399.54	\$240.95	(\$11.96)	-1.8%
	50	15,000	\$998.85	\$594.94	\$1,563.71	\$998.85	\$564.86	(\$30.08)	-1.9%
	75	22,500	\$1,498.28	\$879.98	\$2,333.08	\$1,498.28	\$834.80	(\$45.18)	-1.9%
	100	30,000	\$1,997.70	\$1,164.99	\$3,102.41	\$1,997.70	\$1,104.71	(\$60.28)	-1.9%
	150	45,000	\$2,996.55	\$1,735.04	\$4,641.11	\$2,996.55	\$1,644.56	(\$90.48)	-1.9%

Present Rates

Customer Charge		\$24.89
Distribution Charge	kWh x	\$0.00219
Distribution Demand Charge	kW x	\$4.48
Storm Adjustment Factor	kWh x	\$0.00040
Transmission Charge	kWh x	\$0.01643
Stranded Cost Charge	kWh x	\$0.00020
System Benefits Charge	kWh x	\$0.00330
Electricity Consumption Tax	kWh x	\$0.00055

Proposed Rates

Customer Charge		\$25.01
Distribution Charge		\$0.00011
Distribution Demand Charge		\$4.50
Storm Adjustment Factor		\$0.00040
Transmission Charge		\$0.01643
Stranded Cost Charge		\$0.00020
System Benefits Charge		\$0.00330
Electricity Consumption Tax		\$0.00055

Supplier Services

Default Service	kWh x	\$0.06659
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Granite State Electric Company  
d/b/a National Grid  
Docket No. DE 11-\_\_  
Witness: D.E. Tufts

**Schedule DET-5  
Revised Tariff Pages**

<u>Revised Page</u>	<u>Superseded Page Rate</u>	<u>Schedule</u>
Tenth Revised Page 35	Superseding Ninth Revised Page 35	Rate D
Sixth Revised Page 36	Superseding Fifth Revised Page 36	Rate D
Seventh Revised Page 37	Superseding Sixth Revised Page 37	Rate D
Twelfth Revised Page 39	Superseding Eleventh Revised Page 39	Rate D
Tenth Revised Page 40	Superseding Ninth Revised Page 40	Rate D-10
Tenth Revised Page 43	Superseding Ninth Revised Page 43	Rate D-10
Sixth Revised Page 44	Superseding Fifth Revised Page 44	Rate G-1
Eleventh Revised Page 45	Superseding Tenth Revised Page 45	Rate G-1
Sixth Revised Page 50	Superseding Fifth Revised Page 50	Rate G-2
Seventh Revised Page 55	Superseding Sixth Revised Page 55	Rate G-3
Tenth Revised Page 57	Superseding Ninth Revised Page 57	Rate G-3
Seventh Revised Page 59	Superseding Sixth Revised Page 59	Rate M
Eighth Revised Page 60	Superseding Seventh Revised Page 60	Rate M
Seventh Revised Page 66	Superseding Sixth Revised Page 66	Rate T
Tenth Revised Page 68	Superseding Ninth Revised Page 68	Rate T
Sixth Revised Page 70	Superseding Fifth Revised Page 70	Rate V
Tenth Revised Page 72	Superseding Ninth Revised Page 72	Rate V

## DOMESTIC SERVICE RATE D

### AVAILABILITY

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

### CHARACTER OF SERVICE

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

### RATE PER MONTH

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

#### Rates for Retail Delivery Service

##### Customer Charge

~~\$4.35~~4.37 per month

##### Distribution Energy Charges

###### Regular Use

~~1.64~~1.649 cents per kilowatt-hour for the first 250 kilowatt-hours

~~4.275~~4.296 cents per kilowatt-hour for the excess of 250 kilowatt-hours

For customers who received service under the off-peak provisions of the Domestic Service Rate D prior to April 1, 1991, the following rates shall apply:

##### Off-Peak Use: 16 Hour Control

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

~~1.570~~1.577 cents per kilowatt-hour if a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King  
Thomas B. King

Effective: ~~July 1, 2010~~July 1, 2011

Title: President

(Issued in Compliance with Order No. ~~25,126~~ in Docket DE ~~40-140~~ dated ~~June 30, 2010~~)

Off-Peak Use: 6 Hour Control

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

~~1.641~~1.649 cents per kilowatt-hour if a Customer has installed an electric water heater of a type approved by the Company, and electricity delivered to such water heater is supplied only under this rate.

Farm use

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

~~2.553~~2.565 cents per kilowatt-hour for all Regular Use kilowatt-hours in excess of the greater of the following:

- (a) 500 kilowatt-hours
- (b) 100 kilowatt-hours per kilovolt-ampere of transformer capacity needed to serve the Customer

APPROVED TYPES OF WATER HEATERS FOR USE UNDER PROVISIONS OF  
OFF-PEAK USE CLAUSE OF DOMESTIC RATE D

The specifications for an approved type of water heater for all domestic applications are as follows:

- (1) It shall be of standard manufacture and have a capacity and corresponding heating elements as specified below:

<u>Approx. Tank Size Gallons</u>	<u>Rating Top Unit Watts</u>	<u>Rating Bottom Unit Watts</u>
80*	4500	3000
100 to 120	4500	4500
150	5000	5000

\*Water heaters of less than 80 gallons with top and bottom heating elements of not more than 4500 watts each may be installed at the Company's option, with the permission of the Regional Executive.

- (2) It shall be equipped with a top and bottom heating element, each controlled by a separate thermostatic switch. The thermostatic switch for the top element shall be of a double-throw type so connected as to

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~July 1, 2010

Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ in Docket DE ~~10-140~~ dated ~~June 30, 2010~~)

permit operation of only one heating element at a time. The thermostat for the bottom element shall be of single-pole, single-throw type. The top and bottom units shall be designed for nominal 240-volt operation.

- (3) It shall have a pressure rating of not less than 250 pounds-per-square-inch test.
- (4) It shall be equipped as purchased with an approved fuel cut-off type temperature limit switch having its temperature sensitive element in contact with tank surface within 12 inches of top and so connected as to completely disconnect the heating elements from the power supply.
- (5) The thermostats for the top and the bottom heating units shall have a range of temperature settings extending from 120 degrees to 170 degrees Fahrenheit with the bottom element setting maintaining approximately a 10-degree differential above the setting of the top element.
- (6) The water heater and the installation thereof shall conform to the National Electric Code, to any State of local requirements, and to those of the Company.

The Customer shall provide a separate circuit for the water heater, of ample capacity and designed for 240-volt operation, to which no equipment other than the water heater shall be connected. Specific water heating connection diagrams for each type of service and rate application are available from the Company.

#### INTERRUPTIBLE CREDITS

The Company will provide, own and maintain a suitable switch designed to control the operation of selected appliances so that the appliance may operate only during the hours chosen by the Company.

If the Customer has installed an electric water heater of a type approved by the Company, and permits the Company to control the operation of the water heater for the specified number of hours per day and during emergency situations, the Customer will receive the following credit each month:

	<u>Control hrs./day</u>	<u>Credit</u>
IC-1	6	<del>\$4,844.86</del>
IC-2	16	<del>\$6,476.50</del>

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Title: Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

#### ELECTRIC ASSISTANCE PROGRAM

Eligible customers taking service under this rate will receive a discount as provided on Page 86 of this Tariff of which this rate is a part. Eligibility shall be determined in accordance with the Electric Assistance Program Provision on Page 86 of this Tariff. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### MINIMUM CHARGE

~~\$4.354.37~~ per month Customer Charge.

#### BIMONTHLY BILLING

The Company reserves the right to read meters and render bills on a bimonthly basis. When bills are rendered bimonthly, the Customer Charge, the kilowatt-hours stated in each block and the Minimum Charge shall be multiplied by two.

#### TERMS OF PAYMENT

The above rate is net, billed monthly or bimonthly and payable upon presentation of the bill.

#### TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King  
Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Title: President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

DOMESTIC SERVICE RATE D-10  
OPTIONAL PEAK LOAD PRICING RATE

AVAILABILITY

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

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

CHARACTER OF SERVICE

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

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge

~~\$7.477.50~~ month

Distribution Energy Charges

On-Peak ~~4.7464.769~~ cents per kilowatt-hour

Off-Peak 0.000 cents per kilowatt-hour

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

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

The holidays will be: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. All holidays will be the nationally observed day.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Title: Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

#### ELECTRIC ASSISTANCE PROGRAM

Eligible customers taking service under this rate will receive a discount as provided on Page 86 of this Tariff of which this rate is a part. Eligibility shall be determined in accordance with the Electric Assistance Program Provision on Page 86 of this Tariff. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### MINIMUM CHARGE

~~\$7,477.50~~ per month Customer Charge

#### TERMS OF PAYMENT

The above rate is net, billed monthly or bimonthly and payable upon presentation of the bill.

#### TERMS OF AGREEMENT

The agreement for service under this rate will continue for an initial term of one year if electricity can be properly delivered to a Customer without an uneconomic expenditure by the Company. The agreement may be terminated at any time on or after the expiration date of the initial term by twelve (12) months prior written notice.

#### TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

## GENERAL SERVICE TIME-OF-USE RATE G-1

### AVAILABILITY

Retail Delivery Service under this rate is available for all purposes except resale, subject to the provisions of this section. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 200 kW of Demand.

A Customer may be transferred from rate G-1 at its request or at the option of the Company if the customer's 12 month average monthly demand is less than 180 kW of Demand for 3 consecutive months.

If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate. If any electricity is delivered hereunder at a given location, then all electricity delivered by the Company at such location shall be furnished hereunder, except such electricity as may be delivered under the provisions of the Limited Commercial Space Heating Rate V.

The actual delivery of service and the rendering of bills under this rate is contingent upon the installation of the necessary time-of-use metering equipment by the Company; subject to both the availability of such meters from the Company's supplier and the conversion or installation procedures established by the Company.

All customers served on this rate must elect to take their total electric service under the time-of-use metering installation as approved by the Company. If delivery is through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate.

### CHARACTER OF SERVICE

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts.

All voltages are not available in every area.

### RATE PER MONTH

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

#### Rates for Retail Delivery Service

##### Customer Charge

~~\$92,999~~3.45 per month.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~July 1, 2010

Title: Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket No. DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

Distribution Demand Charge

\$~~4.064~~08 per kW of Peak Hours Demand per Month

Distribution Energy Charges

Peak Hours Use            0.134 cents per Kilowatt-hour

Off-Peak Hours Use        0.000 cents per Kilowatt-hour

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

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

The holidays will be: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. All holidays will be the nationally observed day.

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 79 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

STRANDED COST ADJUSTMENT

All energy billed under this rate is subject to a Stranded Cost Energy Charge which rate shall be adjusted from time to time in accordance with the Company's Stranded Cost Adjustment Provision as provided on Page 80 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~July 1, 2010

Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket No. DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

## GENERAL LONG HOUR SERVICE RATE G-2

### AVAILABILITY

Retail Delivery Service under this rate is available for all purposes except resale, subject to the provisions of this section. A Customer will take delivery service on this rate if the Company estimates that its average use will be greater than or equal to 20 kW of Demand but is less than 200 kW of Demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

A customer may be transferred from rate G-2 at its request or at the option of the Company if the customer's twelve (12) month average monthly demand is less than 18 kW of demand for three consecutive months.

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

### CHARACTER OF SERVICE

Service supplied under this rate will be 60 cycle, three-phase alternating current normally at a nominal voltage of 120/208, 277/480, 2400, 4160, 4800, 7200, 13,200 and 13,800 volts.

All voltages are not available in every area.

### RATE PER MONTH

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

#### Rates for Retail Delivery Service

##### Customer Charge

\$~~24.89~~25.01 per month.

##### Distribution Demand Charge

\$~~4.484~~4.50 per kilowatt of Demand per Month

##### Distribution Energy Charge

0.031 cents per kilowatt-hour

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~July 1, 2010

Thomas B. King  
Title: President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

GENERAL SERVICE RATE G-3

AVAILABILITY

Retail Delivery Service under this rate is available for all purposes except for resale. A Customer will take delivery service on this rate if the Company estimates that its average use will be less than 20 kW of demand. If electricity is delivered through more than one meter, except at the Company's option, the charge for electricity delivered through each meter shall be computed separately under this rate.

CHARACTER OF SERVICE

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

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

All voltages are not available in every area.

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge

~~\$5.515.53~~ per month.

Distribution Energy Charge

~~3.0763.091~~ cents per kilowatt-hour.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

#### SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### MINIMUM CHARGE

~~\$5.51~~ \$5.53 per Month Customer Charge

However, if the KVA transformer capacity needed to serve a customer exceeds 25 KVA, the minimum charge will be increased by \$1.62 for each KVA in excess of 25 KVA.

#### BIMONTHLY BILLING

The Company reserves the right to read meters and render bills on a bimonthly basis. When bills are rendered bimonthly, the Customer Charge and the Minimum Charge shall be multiplied by two.

#### TERMS OF PAYMENT

The above rate is net, billed monthly or bimonthly and payable upon presentation of the bill.

#### TERM OF AGREEMENT

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

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ July 1, 2010

Thomas B. King  
Title: President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

OUTDOOR LIGHTING SERVICE RATE M

AVAILABILITY

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.

Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.

In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

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

RATE

Luminaire Charge

<u>Size of Street Light Lumens</u>	<u>Lamp Wattage</u>	<u>Description</u>	<u>Annual Distribution Price Per Unit</u>
<u>Sodium Vapor</u>			
4,000	50	LUM HPS RWY 50W	<del>\$50.58</del> <u>50.83</u>
9,600	100	LUM HPS RWY 100W	<del>\$61.32</del> <u>61.62</u>
27,500	250	LUM HPS RWY 250W	<del>\$107.67</del> <u>108.20</u>
50,000	400	LUM HPS RWY 400W	<del>\$140.29</del> <u>140.99</u>
9,600(Post Top)	100	LUM HPS POST 100W	<del>\$70.62</del> <u>70.97</u>
27,500(Flood)	250	LUM HPS FLD 250W	<del>\$108.63</del> <u>109.17</u>
50,000(Flood)	400	LUM HPS FLD 400W	<del>\$149.96</del> <u>150.70</u>
<u>Incandescent</u>			
1,000	103	LUM INC RWY 103W	<del>\$67.52</del> <u>67.85</u>

Issued: ~~April 1, 2011~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~May 1, 2011

Thomas B. King  
 Title: President

(Issued in Compliance with Order No. 25,205 in Docket DE 10-326 dated March 21, 2011)

<u>Size of Street Light Lumens</u>	<u>Lamp Wattage</u>	<u>Description</u>	<u>Annual Distribution Price Per Unit</u>
<u>Mercury Vapor</u>			
4,000	100	LUM MV RWY 100W	<del>\$48.87</del> <u>49.11</u>
8,000	175	LUM MV RWY 175W	<del>\$59.42</del> <u>59.71</u>
22,000	400	LUM MV RWY 400W	<del>\$112.38</del> <u>112.94</u>
63,000	1,000	LUM MV RWY 1000W	<del>\$213.22</del> <u>214.28</u>
22,000(Flood)	400	LUM MV FLD 400W	<del>\$124.28</del> <u>124.90</u>
63,000(Flood)	1,000	LUM MV FLD 1000W	<del>\$214.61</del> <u>215.68</u>

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate, unless specific permission is received from the Commission’s Chief Engineer.

**POLE AND ACCESSORY CHARGE**

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

<u>Overhead Service</u>	<u>Description</u>	<u>Annual Price Per Unit</u>
Wood Poles	POLE – WOOD	<del>\$59.60</del> <u>59.89</u>
<u>Underground Service</u>		
<u>Non-Metallic Standard</u>		
Fiberglass – Direct Embedded	POLE FIBER PT <25FT	<del>\$61.72</del> <u>62.02</u>
Fiberglass with Foundation <25 ft.	POLE FIBER RWY <25FT	<del>\$104.67</del> <u>105.19</u>
Fiberglass with Foundation >=25 ft.	POLE FIBER RWY=>25	<del>\$174.87</del> <u>175.74</u>
<u>Metal Standard</u>		
Metal Poles Poles - Direct Embedded	POLE METAL EMBEDDED	<del>\$124.81</del> <u>125.43</u>
Metal Poles Poles with Foundation	POLE METAL =>25FT	<del>\$150.39</del> <u>151.14</u>

**OTHER CHARGES**

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

Issued: ~~April 1, 2011~~

Issued by: /s/ Thomas B. King  
 Thomas B. King

Effective: ~~July 1, 2011~~ May 1, 2011

Title: President

(Issued in Compliance with Order No. 25,205 in Docket DE 10-326 dated March 21, 2011)

RATE PER MONTH

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

Rates for Retail Delivery Service

Customer Charge

~~\$5.635.65~~ per Month

Distribution Energy Charge

~~2.0092.019~~ cents per kilowatt-hour

INTERRUPTIBLE CREDITS

The Company will provide, own and maintain a suitable switch designed to control the operation of selected appliances so that the appliance may operate only during the hours chosen by the Company.

If the Customer has installed an electric water heater of a type approved by the Company, and permits the Company to control the operation of the water heater for the specified number of hours per day and during emergency situations, the Customer will receive the following credit each month:

	<u>Control hrs./day</u>	<u>Credit</u>
IC-1	6	<del>\$4.844.86</del>
IC-2	16	<del>\$6.476.50</del>

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 79 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ July 1, 2010

Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

#### ELECTRIC ASSISTANCE PROGRAM

Eligible customers taking service under this rate will receive a discount as provided on Page 86 of this Tariff of which this rate is a part. Eligibility shall be determined in accordance with the Electric Assistance Program Provision on Page 86 of this Tariff. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### MINIMUM CHARGE

~~\$5.635.65~~ per Month Customer Charge

#### BIMONTHLY BILLING

The Company reserves the right to read meters and render bills on a bimonthly basis. When bills are rendered bimonthly, the Minimum Charge shall be multiplied by two.

#### TERMS OF PAYMENT

The above rate is net, billed monthly or bimonthly and payable upon presentation of the bill. However, customers may elect in writing to pay on a Budget Billing Plan available on application to the Company.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ ~~July 1, 2010~~

Thomas B. King  
Title: President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

## LIMITED COMMERCIAL SPACE HEATING RATE V

### AVAILABILITY

The availability of this rate is limited to the following customers: 1) those who immediately prior to the effective date of this rate were served under Commercial Space Heating Rate V, N.H.P.U.C. No. 8 - Electricity and are presently receiving service under this rate, and 2) those who requested service under this rate prior to May 1, 1982.

To such customers, delivery service under this Limited Commercial Space Heating Rate V is available for space heating in buildings other than residences, where the Customer's premises are heated exclusively by electricity.

Air conditioning used in addition to electric space heating at this same location may also be served under this rate, provided that electricity is the sole source of energy, and all the requirements for these purposes are metered hereunder.

Electric space heating equipment shall be permanently installed and be of a type and size approved by the Company.

Service under this rate will be metered separately.

Any other use of electricity must be taken under an applicable general service rate.

This rate is not available to seasonal customers, or for resale or auxiliary service.

### CHARACTER OF SERVICE

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

### RATE PER MONTH

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

#### Rates for Retail Delivery Service

Minimum Charge  
~~\$5.885.90~~ per Month

Distribution Energy Charge  
~~2.8382.852~~ cents per kilowatt-hour

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ July 1, 2010

Title: Thomas B. King  
President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)

#### SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

#### MINIMUM CHARGE

~~\$5,885.90~~ per Month Customer Charge

#### TERMS OF PAYMENT

The above rate is net, billed monthly and payable upon presentation of the bill. However, customers may elect in writing to pay on a Budget Billing Plan available on application to the Company.

#### TERM OF AGREEMENT

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

#### TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Issued: ~~July 21, 2010~~

Issued by: /s/ Thomas B. King

Effective: ~~July 1, 2011~~ July 1, 2010

Thomas B. King  
Title: President

(Issued in Compliance with Order No. ~~25,126~~ \_\_\_\_\_ in Docket DE ~~10-140~~ \_\_\_\_\_ dated ~~June 30, 2010~~ \_\_\_\_\_)