

ORIGINAL
N.H.P.U.C. Case No. <u>DE 10-140</u>
Exhibit No. <u># 2</u>
Witness <u>Panel 1</u>
DO NOT REMOVE FROM FILE



McLane, Graf,
Raulerson & Middleton
Professional Association

100 Market Street, Suite 301 | Portsmouth, NH 03802
Tel: 603.436.2818 | www.mclane.com

OFFICES IN:
MANCHESTER
CONCORD
PORTSMOUTH
WOBURN, MA

SARAH B. KNOWLTON
Direct Dial: (603) 334-6928
Email: sarah.knowlton@mclane.com
Licensed in MA, ME and NH

June 11, 2010

By Electronic Mail

Suzanne Amidon, Esq.
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, NH 03301

**Re: DE 10-140; Granite State Electric Company, Inc. d/b/a /National Grid
Fiscal Year 2010 (April 1, 2009 – March 31, 2010) Reliability Enhancement
Plan and Vegetation Management Plan Report and Reconciliation Filing**

Dear Ms. Amidon:

On behalf of Granite State Electric Company, Inc. d/b/a National Grid, I enclose National Grid's responses to the Staff's First Set of Data Requests in the above docket. Please do not hesitate to call if you have any questions.

Very truly yours,

Sarah B. Knowlton

Enclosures

cc: PUC Librarian (via electronic mail)
Celia O'Brien, Esq.

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1
Date Received: June 4, 2010

Information Request Staff 1-1

Request:

Reference Report, page 8, Table 3. For the 64 miles of feeder hardening that was completed during FY 2010, please provide a schedule showing:

- a. identification of each feeder;
- b. # of miles for each feeder;
- c. date started;
- d. date completed;
- e. cost of the individual project; and
- f. a comparison of miles actually hardened for each feeder vs. the budgeted miles hardened.

Response:

The schedule below provides the information for Staff 1-1 (a) through (e) above. Relative to Request Staff 1-1 (f), the Company planned to complete the work on two feeders last year and begin a third. As shown below, there were 2 miles of work remaining on the 11L1 feeder and this work was completed in fiscal year 2010 in addition to completing work on the 9L3 and 10L4 feeders. Work on the relatively long Vilas Bridge feeder was started in fiscal year 2010 and has continued into fiscal year 2011.

Town	Feeder	Substation	OH Miles on Fdr	Construction Start	Construct ion Finish	FY10 Miles Completed	FY10 Capital
Lebanon	11L1	CRAFT HILL 11	13.9	6/5/08	4/21/09	2.1	\$15,613
Salem	9L3	SALEM DEPOT 9	25.3	3/16/09	4/27/09	12.7	\$145,282
Walpole	12L1	VILAS BRIDGE	115.3	10/12/09	N/A	34.6	\$167,542
Salem	10L4	BARRON AVENUE 10	14.1	12/5/09	12/31/09	14.1	\$111,799
Totals						63.5	\$443,218

The Company wishes to identify the difference in capital investment from feeder hardening work reflected on page 8, Table 3 of the Report (\$469,416) and the schedule shown above (\$443,218). Table 3 reports the value of feeder hardening capital spending recorded to FERC accounts 101 and 106 and forms the basis for the revenue requirements calculation in the Company's filing. The amount identified above represents the capital spending (cash payments) during fiscal year 2010 regardless of the timing of when amounts were reflected in FERC accounts 101 and 106. The difference between the two amounts is the result of timing between the expenditures and the classification of those expenditures into summary or detailed electric plant accounts.

Prepared by or under the supervision of: Robert D. Sheridan and David E. Tufts

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-2

Request:

Reference Report, page 8, Table 3. Please provide an explanation of the factors causing the differences between:

- a. 25 miles of feeder hardening per the FY 2010 budget @ \$12,800/mile;
- b. 64 miles of feeder hardening actually performed during FY 2010 @ \$7,335/mile; and
- c. 25 miles of planned feeder hardening during FY 2011 @ \$11,320/mile (see February 12, 2010 FY 2011 REP/VMP Plan).

Response:

a.) It is difficult to proactively estimate the cost per mile to perform feeder hardening because the cost depends on the number of issues to be resolved and their complexity. The Company's practice is to use the most recent information available. The cost per mile estimate for FY10 (\$12,800) was formulated in January, 2009 using costs that were being incurred on the Craft Hill 11L1 feeder in Lebanon. Construction on this feeder started on June 5, 2008 and was completed on April 21, 2009. By January 2009, cost data from only 4 miles of construction completed on the feeder was available and this limited sample formed the basis of the cost estimate used to develop the FY10 budget.

The quantity of work necessary to harden a feeder varies significantly from feeder to feeder resulting in wide differences in per mileage costs. A review of the work completed in FY10 has been completed and per mile costs vary significantly depending on the number of work locations identified and the volume of work at each location. The number of assets installed per mile increases due with population density and where three phase construction is required. Thus, the cost per mile in more densely populated and three phase areas is generally greater than in more rural or single phase areas. The schedule below illustrates the different volumes of feeder hardening work identified on the feeders worked on during FY10. Please note, that the 11L1 feeder which was used as the basis for the FY10 estimate has a relatively large percentage of three phase miles.

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Town	Feeder	Substation	Work Locations	Work Locations per Mile	% of Miles that are 3 phase	FY10 Capital Cost per Mile
Lebanon	11L1	CRAFT HILL 11	300	21.6	64%	\$7,488
Salem	9L3	SALEM DEPOT 9	416	16.5	42%	\$11,456
Walpole	12L1	VILAS BRIDGE	1037	9.0	23%	\$4,842
Salem	10L4	BARRON AVENUE 10	221	15.6	36%	\$8,119
						\$6,979

- b.) The actual per mile costs incurred in FY10 was significantly less than the \$12,800 per mile budgeted. The range of per mile costs for the miles completed in FY10 ranged from approximately \$11,500/mile on the Salem Depot feeder to only about \$4,900/mile on the Vilas Bridge feeder in Walpole which represented the majority of the miles constructed during the past fiscal year. It should be noted that the majority of the work completed in FY10 was completed on the Vilas Bridge feeder and as illustrated in the table above, this feeder is predominantly single phase work. Thus, the cost per mile was largely influenced by the work completed on this feeder which contributed to the overall reduced cost per mile.
- c.) In an effort to utilize a greater sample of information to develop the FY11 budget, the \$11,320/mile estimate was based on FY10 actual costs incurred through nine months for National Grid's entire feeder hardening program across all of New England. As the focus of the miles to be completed in FY11 will be on the Vilas Bridge feeder (which as noted above is predominantly single phase), the Company anticipates that the cost per mile will be less than the generic estimate used for forecast purposes.

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-3

Request:

Reference Report, page 8, Table 3. Please explain how the number of miles of feeder hardening changed from 25 planned vs. 64 actual taking into consideration that during meetings between National Grid and Staff during February and March 2010 the amount of miles still being discussed for FY 2010 was 25.

Response:

The feeder hardening program is one of the Company's key reliability enhancement programs and has a high priority within the overall Granite State Electric capital budget. Consistent with the Company's desire to drive reliability improvements, during the final quarter of the fiscal year, the Company determined that there was an opportunity to perform additional feeder hardening work based upon the availability of resources and designed work. The original Fiscal Year 2010 target of 25 miles was completed by the end of December, 2009. An additional 24 miles was completed by the end of January and the final 15 miles were completed in February and March 2010.

The Company's preliminary discussion with Staff on January 27, 2010 and follow up discussion on March 9, 2010 were focused on the Company's Fiscal Year 2011 REP/VMP Plan and not on the results of the Fiscal Year 2010 program. At the time of the meeting, the Company was not yet aware of the prospective budget variance for FY 2010 which ended in March. Moreover, the Company had not determined whether it would be seeking recovery of those additional miles, and thus did not discuss the matter with Staff.

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-4

Request:

Reference Report, page 9. Please provide additional details regarding the referenced "reconfiguration of circuits" and how that resulted in an increase in mileage for cycle trimming. Were any reliability benefits gained from the circuit reconfiguration? If so, please explain.

Response:

The reconfiguration of circuits did not actually result in an increase in total mileage worked. A more accurate statement is that reconfiguration resulting in a change in cost. There was actually only a difference of .23 miles under completed versus the initial planned miles in the FY10 work plan. However, the reconfiguration of circuits contributed to the increase in actual cost to perform the work. The reason for this cost increase can be attributed to 2 factors: contracting method and difficulty of work.

National Grid contracts for its cycle trimming work on a fixed priced per scope of work method (lump sum). The vendor submits a total price per the work, in this case multiple circuits as part of one package. This allows us to deal with minor circuit reconfigurations by applying the average cost per mile of the package to the changes and hence either increase or decrease the total amount paid the vendor for the scope of work included in that package.

Difficulty of the work is another factor for the increase in costs associated with the FY10 work plan. Because the circuit reconfigurations decreased mileage in one package, at a lower average fixed cost per mile, and increased mileage in another package, at a higher average fixed cost per mile, the overall cost to completed the work plan increased. The difficulty of work was verified in the field and the higher cost per mile was agreed to be paid to the vendor.

Circuit reconfiguration is done for many reasons, which often have reliability benefits. Customer usage, residential/commercial expansion and an ever increasing population amplify the load upon a circuit. Balancing that load between geographically associated circuits is a cost effective process to maintain a reliable electric distribution system. Reconfiguration is also necessary to address equipment loading concerns.

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-5

Request:

Reference Report, page 9. Please provide specific supporting detail regarding the “reduced town and private tree care budgets” and those customers and towns that “are less able to care for their own trees.” Does this mean that costs that have historically been paid by towns and/or customers have now been shifted to National Grid and its customers? Please explain.

Response:

National Grid field arborists have noticed an effect on private and public tree maintenance that has occurred concurrent with the decline of the economy. For example, the Company's arborists have noticed an increase in hazard trees per mile and believe that with the decline of the economy, customers and municipalities are leaving more trees at risk and looking toward National Grid for hazard removals (see response to Staff 1-6) that are adjacent to the overhead electric utility lines. This means that a town or customer that would have otherwise removed a tree at the first signs of risk are now assuming more risk due to financial constraints. This, in turn, means that the Company is tasked with addressing the risk for those trees that pose a threat to overhead electrical utility lines.

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-6

Request:

Reference Report, page 9. Please provide supporting detail regarding the "rise in unmaintained private trees in close proximity to conductors" experienced by National Grid during FY 2010. By how much did this increase National Grid's required spending?

Response:

The number of hazard trees per mile varies greatly from circuit to circuit and feeder to feeder based on actual field conditions and forest health. In the past year, National Grid arborists have found that the estimates for the number of hazard trees to be removed per mile of three phase line were inaccurate. The arborists attribute this in part to an increased number of hazard trees across the service territory. Based on historic spending levels and the number of trees removed per mile, the Company estimated a total of 1,040 removals, including optional enhanced hazard trees. The number of hazard trees actually removed along those miles were 1,729.

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID
DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1
Date Received: June 4, 2010

Information Request Staff 1-7

Request:

Reference Report, Attachment 1. For each of the activities, please provide, by month, the specific amount of that activity performed (e.g., lines trimmed, units replaced, trees removed, etc.) Please also provide a comparison of those amounts to the amounts included in the December 23, 2009 filing in DE 09-031.

Response:

Table 1 below shows the activity descriptions, activity accounting numbers and number of units performed in FY 2010. The activities of spot tree trimming, trouble and restoration maintenance, police details, interim trimming and tree planting do not have number of units tracked. The activity of hazard tree removal pertaining to unit price removals (DM1220) is not tracked monthly. This activity is done by separate crews on areas not under the scope of the EHTM program. Please see Table 2 for the unit price removals metrics tracked by feeder. These removals include hazard trees as well as removals due to ground clearing of incompatible species directly under the lines. There were no Vegetation Management activity metrics included in the December 23, 2009 filing for comparison.

Table 1

Activity Description	Activity	April	May	June	July	August	September	October	November	December	January	February	March
Spot Tree Trimming	DM1010	This activity is not tracked in units or as a metric											
Spot Tree Trimming	DM1245	This activity is not tracked in units or as a metric											
Trouble & Restoration Maintenance	DM1210	This activity is not tracked in units or as a metric											
Planned Cycle Trimming	DM1215	0	0	0	0	35.80	34.22	0.00	34.38	18.29	0.00	47.66	5.86
Cycle Trimming Police Detail Expense	DM1218	This activity is not tracked in units or as a metric											
Hazard Tree Removal	DM1220	This activity is not tracked as a monthly metric. Please see Table 2 for metrics tracked.											
Hazard Tree Removal	DM1221	0	0	273	305	365	238	190	150	109	99	0	0
Interim Trimming	DM1235	This activity is not tracked in units or as a metric											
Interim Trimming	DM1222	This activity is not tracked in units or as a metric											
Tree Planting	DM1255	This activity is not tracked in units or as a metric											

Table 2

NH Activity DM1220 - Unit Price Removals by Feeder

Feeder	Tree Removals	Large Limb Removals	Region
14L3	258	23	Salem
10L4	50	19	Salem
18L4	5	7	Salem
16L1	240	14	Lebanon
39L2	101	5	Lebanon
6L3	120	11	Lebanon
Total	774	79	

GRANITE STATE ELECTRIC COMPANY

d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-8

Request:

Reference Report, Attachment 2. Regarding the "Planned Circuit Trimming" portion of the attachment, were the 451 hazard trees removed included in circuit trimming costs or in hazard tree removal costs? Please explain.

Response:

The cost of removal of the 451 hazard trees that were removed on circuits that also underwent planned circuit trimming was included in hazard tree costs, not in trimming costs.

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-9

Request:

Reference Report, page 27. Please provide additional details regarding the referenced “unforeseen price adjustment due to a change associated with feeder reconfiguration.” How much did this increase National Grid’s required spending?

Response:

Please see the response to Staff 1-4 for details regarding price adjustments due to feeder reconfiguration. Planned cycle pruning costs differed from actual cycle trimming costs by \$41,858 due to circuit reconfiguration. The largest change in cost was from the reconfiguration of the 14L3 feeder which resulted in an increase over the original bid package price by \$38,208.

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID

DE 10-140

National Grid's Responses to Staff's Data Requests – Set # 1

Date Received: June 4, 2010

Information Request Staff 1-10

Request:

Considering the variances between budgeted and actual activities that occurred during FY 2010, for each activity please describe any resulting changes in the FY 2011 REP/VMP that have been necessitated. For example, did the actual feeder hardening of 64 miles in FY 2010 result in any changes to the plan to harden 25 miles during FY 2011?

Response:

The variance between the budgeted and actual feeder hardening miles performed in fiscal year 2010 has not changed the feeder hardening budget for fiscal year 2011 that the Company submitted to Staff in February. The Company will continue to perform Feeder Hardening work along the Vilas Bridge feeder which requires more than 70 miles of feeder hardening. The Company set a budget of \$283,000 budget for 25 miles of feeder hardening along this feeder in fiscal year 2011 based on cost/per mile estimate of \$11, 320 per mile. If the actual cost per mile for this work is less than expected, this will enable the Company to perform more miles for the same budgeted amount. The Company will set a work plan so as to not exceed the \$283,000 budget

Due to the safety hazards posed by potted porcelain cutouts, the Company's objective is to replace all potted porcelain cutouts as soon as possible prior to the end of 2013. The number and location of all cutouts is still being determined through inspections and the Company has no plans to slow down this program based on the completion of additional units in fiscal year 10. Thus, the Company does not anticipate any changes in the level of potted porcelain cutouts to be replaced as set forth in the fiscal year 2011 Plan.

The Company does not anticipate any changes to its proposed Vegetation Management plan for fiscal year 2011 based on its increased expenditures in fiscal year 2010.