National Grid

Granite State Electric Company

Fiscal Year 2012 Reliability Enhancement Plan and Vegetation Management Plan Report

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Submitted by:

nationalgrid

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Introduction

Pursuant to the settlement agreement approved by the New Hampshire Public Utilities Commission ("Commission" or "PUC") as part of the National Grid/KeySpan merger proceeding in Docket No. DG 06-107[1] ("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 2012 ("FY 2012"), representing the period, April 1, 2011 through March 31, 2012. 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 2012. Table 3 in Section 1 of this report shows that total actual spending for this period was $1,467,486 or $88,514 less than the budgeted amount of $1,556,000.
2) A comparison of actual investment to budgeted spending on capital projects for REP in FY 2012. Table 4 in Section 2 of this report shows that the total capital investment for FY 2012 was $398,239. This actual investment is $290,761 less than the budgeted amount of $689,000.
3) A request to refund customers $295,207, 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 $107,486 of O&M spending for the REP and VMP above the Base Plan O&M amount of $1,360,000 less $402,693 in credits for vegetation management reimbursements from FairPoint Communications ("FairPoint"), as discussed in more detail in Section 1 below. The refund of $295,207 represents an

[1] See Order No. 24,777 (July 12, 2007).

increase of $462,906 above the amount of incremental refund of $758,113 of REP/VMP O&M that is currently embedded in rates. The new O&M amount requested would be effective for usage on and after July 1, 2012;

4) A request for an incremental REP Capital Investment credit of ($18,005) representing the revenue requirement associated with $398,239 of capital investment for FY 2012. This incremental REP Capital Investment credit would be included in rates effective for usage on and after July 1, 2012; and

5) A summary of reliability performance for FY 2012.

The Company is submitting the combined testimony of Jennifer Grimsley and Jeffrey Carney, which provides further information regarding the Company's actual O&M cost and capital investment made during Fiscal Year 2011 ("FY 2011"). In addition, the testimony of William Richer 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 updated clean and revised tariff pages.

Section 1: FY 2012 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 2012 of $1,556,000, which was more than the

total amount of $601,887 embedded in rates[2]. Commission Staff expressed their support for the budget, which was submitted to Staff on February 15, 2011 pursuant to the Settlement Agreement. The $1,556,000 budget included a vegetation budget of $1,459,000 for FY 2012, which was $263,543 higher than the $1,195,457 amount spent for vegetation management in FY 2011. 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 2012 was $1,467,486 for O&M activities related to the REP and VMP, or $88,514 less than the filed budgeted amount of $1,556,000. Partially offsetting the FY 2012 spending is $402,693 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 2012 REP and VMP O&M spending are described below. In addition, Attachment 1 shows the actual VMP O&M expenses by month, while Attachment 2 contains the work plan of completed VMP O&M activities by feeder.

Table 1. Fiscal Year 2012 REP O&M Activities

Activities	**FY 2012 O&M Cost Proposal**	**FY 2012 Actual O&M Cost**
Inspection and Maintenance	$11,000	$935
O&M related to Capital Expenditures	$86,000	$126,503
SubTotal	**$97,000**	**$127,438**
From FY2011 - 11L1 Recloser O&M Related to Capital Expenditures		**$3,829**
Grand Total		**$131,267**

[2] The annual recovery of REP/VMP O&M currently in rates consists of $1,360,000 in base rates less the incremental ($758,113) currently being recovered through the REP/VMP Adjustment Factor that took effect July 1, 2011.

Table 2. Fiscal Year 2012 VMP O&M Activities

Activities	FY 2012 O&M Cost Proposal	FY 2012 Actual O&M Cost
Spot Tree Trimming	$62,000	$37,126
Trouble and Restoration Maintenance	$62,000	$18,397
Planned Cycle Trimming	$785,000	$733,310
Cycle Trimming Police Detail Expenses	$70,000	$87,859
Hazard Tree Removal	$297,000	$313,276
Interim Trimming	$60,000	$4,356
Tree Planting	$500	$1,261
Other Police Detail Expenses	$22,500	$69,782
Optional Enhanced Hazard Tree Removal	$100,000	$70,852
Total	**$1,459,000**	**$1,336,219**

Table 3. Fiscal Year 2012 Total O&M Costs

Activities	FY 2012 O&M Cost Proposal	FY 2012 Actual O&M Cost
REP O&M	**$97,000**	**$131,267**
VMP O&M	**$1,459,000**	**$1,336,219**
Total O&M	**$1,556,000**	**$1,467,486**
Less Reimbursements from FairPoint		402,693
Total		**$1,064,793**

The Company completed all of the vegetation management work contained in its FY 2012 plan. Overall, actual FY 2012 expenses incurred for base VMP O&M activities amounted to $1,336,219 or $122,781 less than the proposed budget of $1,459,000. 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 2012 than forecasted. However, cycle pruning police detail expenses exceeded the anticipated spending levels.

The Company spent $131,267 in O&M costs associated with the REP programs or $34,267 more than the proposed budget of $97,000. This increase in O&M costs was driven by the greater than forecasted amount of equipment that needed maintenance or repair in the Feeder Hardening program. The work performed for inspection and maintenance in FY 2012 was completed late in the fiscal year, and contractor invoices for this work were not processed or paid in FY 2012. These additional costs were approximately $3,900, and were not of a sufficient amount to be accrued in FY 2012, and therefore are not included in this reconciliation. The Company has included the O&M cost of $3,829 associated with the 11L1 line recloser that was installed in FY 2011 but not included in the FY 2011 Reconciliation. This O&M cost is included in the FY 2012 actual results because the 11L1 line recloser was incorrectly charged to the reliability blanket project CNN015 instead of the Recloser project C20473 and identified in the FY 2011 reconciliation filing very late in the process.

Finally, as previously noted, partially offsetting the total O&M spending of $1,467,486 were reimbursements from FairPoint of $402,693 for its share of vegetation management costs, resulting in total O&M costs for FY 2012 of $1,064,793.

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

The Company proposed a $689,000 REP capital budget in FY 2012, in addition to the $97,000 in O&M costs for REP, as shown above. As discussed with Commission Staff, the Company budgeted this amount to perform hardening activities along fifty-seven (57) miles of the Vilas Bridge 12L1 feeder, install three (3) reclosers, and replace/install four hundred (400) cutouts on various feeders. The results for FY 2012 are shown in Table 4 below.

Table 4. Summary of Fiscal Year 2012 REP Capital Investment

Projects	**FY 2012 Goal**	**FY 2012 Actual**	**FY 2012 Capital Spending Budget**	**FY 2012 Actual Capital Investment (FERC 101/106)**
Feeder Hardening (miles)	57	57	$360,000	$92,346
Asset Replacement				
- Reclosers	3	3	$165,000	$132,347
- Cutouts: Installing new cutouts on side taps and replacing potted porcelain cutouts	400	299	$164,000	$86,727
SubTotal			**$689,000**	**$311,420**
From FY 2011 - 11L1 Recloser		1		**$86,819**
Total			**$689,000**	**$398,239**

In FY 2012, 57 miles of feeder hardening were completed on the Vilas Bridge 12L1 feeder. Three (3) new line reclosers were installed to improve feeder sectionalization. A recloser was installed on the Vilas Bridge 12L1 feeder, the Barron Ave 10L4 feeder, and the Spicket River 13L2 feeder. The Company completed all of the identified potted porcelain cutouts with the proposed budget and replaced a total of two hundred and ninety-nine (299) potted porcelain cutouts.

During FY 2010 and FY 2011, the Company completed construction for a line recloser on the 11L1 circuit. However, this recloser was incorrectly charged to the reliability blanket project CNN015 instead of the Recloser project C20473. This issue was identified in the FY 2011 reconciliation filing very late in the process, and was not included in the final reconciliation for FY 2011. As such, the $86,819 in FERC Account 101/106 electric plant additions placed in service for this recloser is now included in the FY 2012 actual results. This higher than average unit cost was due to the replacement of four poles required for this particular installation, which is more than an average installation requires.

As shown above, Table 4 compares the budgeted capital expenditures against the value of FERC Account 101/106 electric plant additions placed in service. These FY 2012 additions form the basis for the REP capital-related revenue requirement calculation provided by Mr. Richer's testimony included in this filing. Key factors contributing to the difference between the FY 2012 budgeted amount and the FY 2012 actual capital investment are (1) timing differences due to budgeted amounts from the prior fiscal year being placed into service in FY 2012, or due to FY 2012 spending for plant not placed into service in FY 2012, which can typically occur as capital work is performed, completed, and processed through the accounting system, and (2) the changes in actual versus estimated costs as site specific requirements are determined by inspection or detailed design. A more detailed description of the variance in each of the REP projects is described below:

Feeder Hardening: Feeder Hardening is a remedial program in which the worst performing feeders are targeted for replacement or installation of equipment such as fuse cutouts, crossarms, poles, transformers, reclosers, lightning arresters, and animal guards. This program includes the 57 miles on the Vilas Bridge 12L1 feeder that were completed in March 2012 by contractors. Since completion of this project occurred at the end of the fiscal year, the Company will be invoiced for these charges in FY 2013 and the plant associated with these costs will not be considered placed in service until paid. As a result, total additions versus estimated cost for the Feeder Hardening program in FY 2012 are lower than expected. The Company expects approximately $225,000 in additions in FY 2013 associated with the Feeder Hardening FY 2012 construction[3], resulting in an

[3] The FY 2013 Plan provided to Staff includes $100,000 for timing differences for Feeder Hardening performed in FY 2012 which will not be placed in service until FY 2013.

approximate total spending for Feeder Hardening of $317,000 or $43,000 below the Feeder Hardening budget. The under spend is driven primarily by less than the forecasted amount of capital equipment which needed replacement in the Feeder Hardening program.

Reclosers: The variance in the recloser program in FY 2012 was driven primarily by the design scope specific to the site of installation. In particular, slightly lower unit costs were experienced in FY 2012 due to fewer required pole replacements and switch installations compared to previous years for the three reclosers installed.

Cutouts: The variance in the cutout program in FY 2012 was driven by the number of available cutouts identified in the field. Specifically, the Company inspections identified 299 cutouts to be replaced, which is less than the original projection. These replacements were completed by the end of FY 2012. There remains the potential that a small number of potted porcelain cutouts were not replaced due to customer outage constraints, or that additional cutouts may be discovered that were missed in previous surveys. As such, the Company has budgeted a small amount[4] for FY 2013 to finish this program, as well as to account for any carryover due to timing differences as plant is placed in service.

In summary, the Company was able to meet the Recloser and Feeder Hardening REP goals and completed all identified potted porcelain cutouts replacements. As set forth in Mr. Richer's testimony, the revenue requirement associated with actual FY 2012 capital investment of $398,239 is ($18,005).

[4] The FY 2013 Plan includes $60,000 for additional cutout replacements in FY 2013 and for timing differences for cutout replacements performed in FY 2012 which will not be placed in service until FY 2013.

Section 3: Reliability Results – Calendar Year 2011 and Fiscal Year 2012

The Company's 2011 REP/VMP report presented reliability results on a calendar year (CY) basis in addition to a Fiscal Year (FY) basis. Both are once again presented in this report, beginning with the calendar year results. Metrics for CY 2011 are presented in Table 5 below 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 2011 Reliability Results[5]

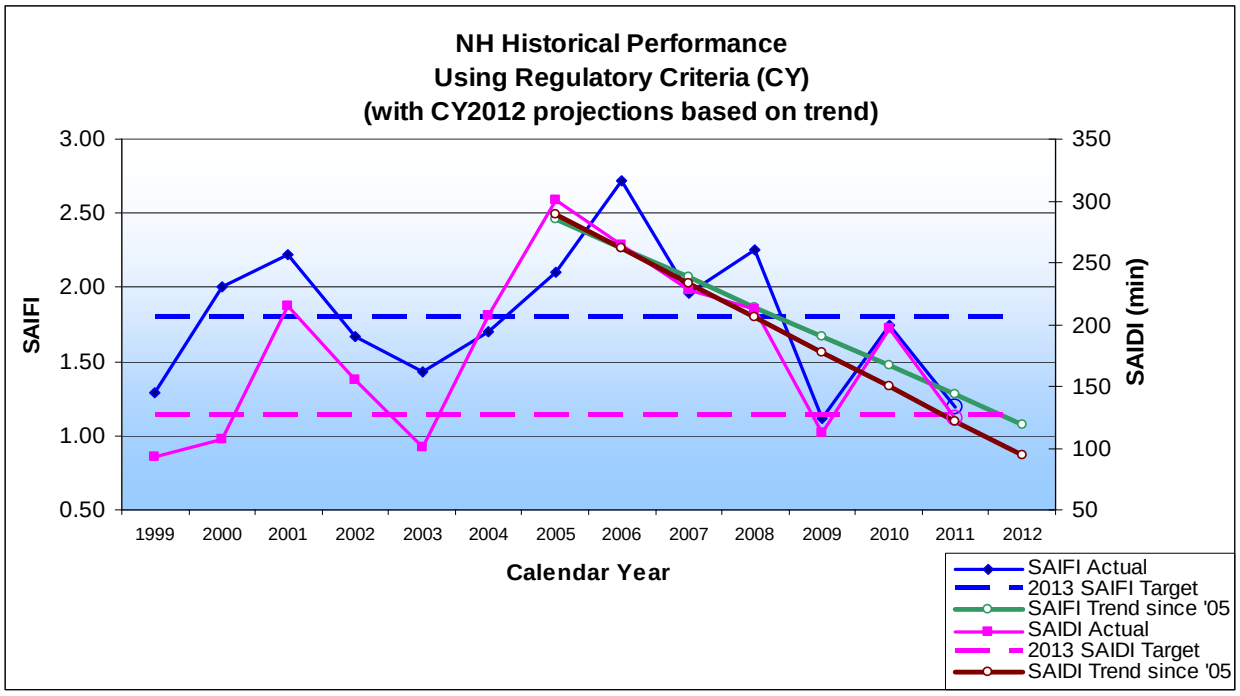
Major Storm Criterion	CI	CMI	SAIFI	SAIDI
PUC Major Event Day [6] Standard	49,613	5,205,210	1.19	124.54
IEEE 1366 Major Event Day[7] Standard	51,230	6,547,447	1.23	156.68

As set forth in Exhibit GSE-8 of the Settlement Agreement, the REP and VMP are being implemented by National Grid to bring the Company's reliability performance back to historical performance levels that existed prior to 2005[8], with the goal of meeting those historical performance levels by the end of fiscal year 2013[9].

[5] Only events involving 1 or more customers and more than 5 minutes are included in the calculated statistics.
[6] PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, nine days were excluded in Calendar Year 2011: March 7, August 28 – August 30, and October 29 – November 2, 2011.
[7] IEEE Major Event Days: Using IEEE criteria, four days were excluded in Calendar Year 2011: March 7, August 28, October 29 and October 30, 2011.
[8] See Exhibit GSE-8 of the Settlement Agreement at p. 1.
[9] 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.

As shown in Figure 1, the reliability performance metrics in CY 2011 were more favorable than the metrics of CY 2010, although slightly less favorable than in CY 2009.

Figure 1. Calendar Year Historical Reliability Performance



As shown, both the SAIDI and SAIFI metrics for CY 2011 met the reliability performance goals set for FY 2013 of 126 minutes for SAIDI and 1.8 for SAIFI. In addition, the multi-year trend in performance by calendar year since 2005 remains on an improving (downward) trajectory.

Metrics for FY 2012 are presented in Table 6.

Table 6. Fiscal Year 2012 Reliability Results[10]

Major Storm Criterion	CI	CMI	SAIFI	SAIDI
PUC Major Event Day [11] Standard	48,358	4,464,691	1.16	106.73
IEEE 1366 Major Event Day[12] Standard	49,928	5,878,432	1.20	140.57

As shown in Figure 2 below, the reliability performance metrics in FY 2012 were more favorable than the metrics of FY 2011. The SAIDI metric was better than in any year since FY 2000, and the SAIFI metric reflected its best result since the Company began using its current Interruption Disturbance System (IDS) in 1999 (calendar year). Both the SAIDI and SAIFI metrics for FY 2012 met the reliability performance goals set for FY 2013. In fact, the SAIDI and SAIFI performance has been improving since FY 2006. In summary, National Grid has met the FY 2013 goals and will strive to sustain the overall positive performance trend to continue to meet these goals.

[10] Only events involving 1 or more customers and more than 5 minutes are included in the calculated statistics.
[11] PUC Major Storm: [(CI >= 15 % of Customers Served and 30 concurrent events) or (45 concurrent events)], Using PUC criteria, eight days were excluded in FY 2012: August 28 – August 30, and October 29 – November 2, 2011.
[12] IEEE Major Event Days: Using IEEE criteria, three days were excluded in FY 2012: August 28, October 29 and October 30, 2011.

Figure 2. Fiscal Year Historical Reliability Performance