

February 28, 2014

**VIA HAND DELIVERY & ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 4382 - Electric Infrastructure, Safety, and Reliability Plan FY 2014  
Quarterly Report – 3rd Quarter FY 2014**

Dear Ms. Massaro:

On behalf of National Grid<sup>1</sup>, I have enclosed ten (10) copies of the Company's quarterly report for the third quarter of FY 2014 regarding the Company's Electric Infrastructure, Safety and Reliability ("ISR") Plan for FY 2014. Pursuant to the provisions of the approved ISR plan, the Company committed to providing quarterly reports on the progress of its Electric ISR programs to both the Commission and the Division.

Thank you for your attention to this transmittal. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,



Thomas R. Teehan

Enclosure

cc: Leo Wold, Esq.  
Steve Scialabba  
James Lanni  
Al Contente

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (hereinafter referred to as "National Grid" or the "Company").

## **Electric Infrastructure, Safety and Reliability Plan**

### **FY14 Quarterly Update**

#### **Third Quarter Ending December 31, 2013**

##### **Executive Summary**

Overall, through the third quarter of fiscal year 2014 (FY14), the Company has spent \$49.6 million for capital investment projects against an annual approved budget of \$59.6 million, representing approximately 83% of the total FY14 budget, which is ahead of target with the Company's FY14 phased budget through the third quarter.

At this time, the Company anticipates that overall spend for the entire fiscal year will be approximately \$9.4 million above budget, \$5.9 million in the discretionary category, primarily driven by higher spending for System Capacity and Performance work, and \$3.5 million in the non-discretionary category driven by higher spending for Damage Failure work. The spending higher than budget in the System Capacity and Performance category is partially offset by spending lower than budget in the discretionary category for Asset Condition, as discussed below. Additionally, in the sections below relating to specific spending rationales, the Company explains the primary drivers for variances over- or under-budget through the third quarter of FY14.

##### **FY14 Capital Spending by Key Driver Category**

###### ***Statutory/Regulatory - \$1.3 million under-budget year-to-date***

Through the third quarter of FY14, the Statutory/Regulatory spending is lower than budgeted primarily due to transformer and meter purchases being below budget. Transformer and meter purchases are below budget primarily due to allocations no longer being applied to materials after the implementation of SAP. This is partially offset by higher than expected spending in the new business commercial and public requirements categories due to the carryover of the Shun Pike substation and the I-195 Contract 14

projects from FY13. It is currently projected that at fiscal year-end, this category will be less than \$0.2 million under-budget.

***Damage/Failure - \$4.0 million over-budget, year-to-date***

Through the third quarter of FY14, the Damage/Failure spending is higher than historical trends, driven by capital charges from prior year major storms, recent trends for Distribution Line Damage/Failures in the blanket project, and failure of the Sockanosset #2 transformer. The recent trends for the blankets projects being over-budget are due to an increase in labor related charges to monthly confirming work orders compared to prior year trends. This change in trend is being reviewed and may result in future adjustments. It is currently projected that at fiscal year-end, this category will be \$3.7 million over-budget due to the reasons stated above.

***Asset Condition - \$3.4 million under-budget, year-to-date***

Overall, spending is lower in the Asset Condition category through the third quarter of FY14. This is primarily driven by the following projects:

- The Inspection & Maintenance program spending is \$4.3 million below budget year to date. Total capital spending for FY14 at fiscal year-end is projected to be \$3.7 million, \$4.8 million below budget. As discussed in the prior quarterly reports, the spending variance is primarily due to a delay in the full implementation of the program driven by system changes made to the Company's work management system to appropriately capture grounding as a capital item. In addition, a portion of the variance below budget is driven by the work being able to be completed at a lower cost than estimated.
- As discussed in the prior quarterly reports, also contributing to the projected under-budget spending variance by approximately \$800,000 is the Memorial Blvd Easton Beach ductline and cable project in Newport due to delays in scope definition. Engineering and Design for the sea level ductline installation will be completed in FY15, with construction now scheduled for FY16.

- The Arc Flash Program has experienced a slower than anticipated start due to delays in procurement of the primary and secondary voltage protection equipment. As a result of these delays, at this time, this project is expected to be approximately \$200,000 under-budget at fiscal year-end.

Offsetting a portion of the variance below budget from the projects noted above is the projected spending above budget on the following projects:

- The Asset Replacement blanket project is forecasted to be over-budget by approximately \$770,000 due to an increased volume of identified and completed work as compared to prior years.
- A project to replace switchgear in downtown Providence, which was emergent work in FY13, is forecasted to be over-budget by \$600,000 as this work was delayed into FY14 due to difficulty with scheduling the required outages with the customers involved.
- The Breakers/Reclosers replacement project is forecasted to be over-budget by \$475,000 due to carryover from FY13 caused by engineering and material delays and outage constraints.

It is currently projected that at fiscal year-end, the Asset Condition category will be approximately \$4.7 million under-budget, primarily driven by the projects listed above.

***Non-Infrastructure - \$0.6 million over- budget, year-to-date***

Spending was higher in the Non-Infrastructure category through the third quarter of FY14, primarily due to carryover from FY13 of a radio improvement project that is designed to upgrade the radio system for Rhode Island and replace the electric mobile fleet communications. This upgrade is necessary to maintain compatibility with radio systems between Rhode Island and Massachusetts for emergency restoration. It is currently projected that at fiscal year end, the non-infrastructure category will be \$0.5 million over-budget, primarily due to this same project.

***System Capacity and Performance - \$6.2 million over- budget, year-to-date***

Overall, spending is higher in the System Capacity and Performance category through the third quarter of FY14 primarily driven by the Highland Drive substation and Johnston substation projects discussed below:

- A significant portion of the Highland Drive project was initially incorrectly budgeted as Transmission work, when it should have been budgeted as Distribution work. The actual charges for this project are being reassigned to Distribution, but this adjustment resulted in a spending variance of \$1.8 million over-budget year to date, and now contributes to a projected \$4.1 million variance over-budget at fiscal year-end.
- The Johnston #18 Substation spending is \$1.6 million over-budget year to date due to acceleration of this project ahead of schedule, and is expected to be over-budget by \$1.6 million at fiscal year-end for this same reason.
- The Kilvert St. distribution line work spending is \$0.3 million above budget year to date. Work that was not dependent on the substation completion was advanced into FY14 due an earlier than expected completion of permitting and the availability of resources to begin construction. However, work on one feeder originally planned to be advanced as discussed in the first quarter report will not be advanced so as to allow for time to review plans with airport administration in light of an upcoming airport expansion. Overall, this project is expected to be \$0.6 million over-budget at fiscal year-end due to its advancement into FY14.
- The Coventry Substation project is projected to be \$0.3 million over the FY14 budget. This project was not budgeted for FY14 as it was placed in service in FY13, but had some carryover of final work and payments into FY14.
- As discussed in the FY13 Electric ISR, the Energy Management System (“EMS”)/Remote Terminal projects in the FY13 budget were delayed and carryover spending into FY14 has created a variance of approximately \$0.1 million above the FY14 budgets for these projects.

Offsetting a portion of the variance above budget from the projects noted above is a projected spending below budget on the following projects:

- As discussed in the second quarter report, the Tunk Hill project was originally budgeted on an investment grade estimate. After the detailed design was completed, the scope of work was less than originally estimated. This project is expected to be completed early in FY15.
- Chase Hill project spending is below budget for FY14 due to a lengthy land acquisition process that delayed purchasing of the land. At this time, the land purchase is complete and the wetland permit application is in final draft. Purchase of major materials is currently underway.
- The Newport project spending is below budget for FY14 primarily due to a delay in obtaining a 'special use permit' for the substation. At this time, the Company continues with preliminary engineering and the permitting process on the project.

It is currently projected that at fiscal year-end, the System Capacity and Performance category will be \$10.1 million over-budget, with approximately \$6.7 million driven by the projects discussed above. The driver for the remaining variance is attributable to work on the majority of the individual projects progressing as budgeted, and not requiring full use of the negative schedule reserve embedded in the fiscal year budget. The Company utilizes negative schedule reserves in the System Capacity and Performance budget category with the goal of eliminating churn when projects do not proceed as scheduled due to delays from things such as permitting, obtaining easements, telephone pole sets or other issues which were unknown at the time the budget was finalized.

While the System Capacity and Performance category is projected to have a variance of \$10.1 million over-budget, this forecast contains several individual project forecasts that are aggressive for the last quarter of the year. For example, the Chase Hill forecast assumes a significant spend on the purchase of metalclad switchgear and transformers, and if these materials are not received by March 31, this spend will shift into FY15.

Overall, as shown in Attachment A, the total discretionary category will have a variance of \$5.9 million above budget as the variance below budget in the Asset Condition category of \$4.7 million offsets a portion of the variance above budget in the System Capacity and Performance and Non-Infrastructure categories.

### **Investment Placed in Service**

Through the third quarter of FY14, \$26.8 million has been placed in service. It is currently anticipated that plant-in-service will be approximately \$46.8 million at year-end, which is 88% of the forecast for FY14. The Company is reviewing current construction work in progress project balances to ensure that work is appropriately placed in service financially, and in performing that review may be able to close the gap between the forecast and the ISR plan. Details by spending rationale are included in Attachment B.

### **Vegetation Management**

Through the third quarter of FY14, 85% of the annual distribution mileage cycle pruning goal has been completed with an associated spend of 74% of the FY14 budget for the cycle pruning program. The costs for the program typically lag behind the work performed. Costs for police details have exceeded the budget estimate due to several factors. As stated in the FY14 First and Second Quarter Reports, in an effort to reduce costs and create more accurate reporting, for FY14, police and flagging costs for the Company's cycle pruning program were removed from the bidding process and placed exclusively into the police and flagging budget accounts. In addition, a number of towns are now requiring police officers instead of flaggers. To better control these costs, the Company is continuing to monitor all detail costs, and continues to work with those communities through our community relations department. Due to an aggressive bidding process and continuing relationship with vendors, the Company has been able to offset most of those additional police costs by savings in other areas. At this time, the Company anticipates being approximately \$25,000 over-budget for FY14. Details by category can be seen in Attachment C.

### **Inspection and Maintenance (I&M)**

Through the third quarter of FY14, 73.2% of the annual inspection structure goal has been completed. The Company expects to complete all inspections in FY14.

Through the third quarter of FY14, 80% of the total I&M budget has been spent. As discussed in the first quarter report, the mobile elevated voltage testing and associated repairs completed between March and May 2013 are included in the costs shown in Attachment D. While the surveying and testing activities for mobile testing occurred in FY13, the vendor bills and payments were not received and processed until FY14. As such, none of these costs were included in the FY13 Electric ISR Reconciliation Filing submitted on August 1, 2013. Also included in the total forecasted costs are the forecasted costs for the FY14 mobile elevated voltage testing<sup>1</sup>.

As discussed in the System Capacity and Performance section above, capital spending on I&M is \$4.2 million below budget, and the total expense costs resulting from repairs due to inspections (both Opex related to Capex and Repair Related Costs) are, therefore, lower than anticipated through the third quarter of FY14 as well. While the total expense costs are as expected, the Company underestimated the expense dollars in the Opex related to Capex category and overestimated the expense dollars in the Repair Related Costs category. At this time, the I&M program forecast is approximately \$2.8 million, or 26% below the original ISR budget of \$3.7 million. This is primarily driven by the lower volume of capital work, and therefore, associated expense work, to be performed in the program.

Attachment D provides the spending to date for all components in this category.

The I&M program has been ramping up to full implementation over the past several years. The Company started performing inspections on its overhead distribution system in FY11, and started performing the repairs based on those inspections in FY12. The Company categorizes the deficiencies found as Level I, II or III, and repairs Level I

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<sup>1</sup> At an Open Meeting on January 16, 2014, the Rhode Island Public Utilities Commission (the "PUC") approved the Company's Annual Contact Voltage Compliance Report filed on August 29, 2013 in Docket 4237-A. At the Open Meeting, the PUC also approved the Company's recommendation to test 100% of the mobile contact voltage areas in Rhode Island in FY14 and add approximately 1,500 feet in Westerly as a designated contact voltage risk area.

deficiencies either immediately or within approximately one week of the inspection, and bundles Level II and III work for planned replacement. At this time, the Company has completed repairs reported for approximately 10% of the deficiencies found. Total deficiencies found and repairs made to date are shown in the table below.

**Summary of Deficiencies and Repair Activity - RI Distribution**

Year Inspection Performed	Priority Level	Deficiencies Found (Total)	Repaired as of 2/12/14	Not Repaired as of 2/12/14
FY11	I	18	18	0
	II	13,146	7,738	5,408
	III	0	0	0
FY12	I	17	17	0
	II	15,848	765	15,083
	III	36	0	36
FY13	I	15	15	0
	II	26,882	5	26,877
	III	6,926	0	6,926
FY14 through Q3	I	5	5	0
	II	14,848	0	14,848
	III	6,880	0	6,880
<b>Total Since Program Inception</b>		<b>84,621</b>	<b>8,563</b>	<b>76,058</b>

Results of the Company's manual elevated voltage testing for FY14 to date have indicated 7 instances of elevated voltage reading of one volt or more found through the street light inspections, and no instances of elevated voltages found through either the overhead or underground manual elevated voltage inspections, as shown in the table below.

The Narragansett Electric Company  
 d/b/a National Grid  
 R.I.P.U.C. Docket No. 4382  
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Manual Elevated Voltage Testing	Total System Units Requiring Testing	FY14 YTD Units Completed Through 2-24-14	Percent Completed	Units with Voltage Found (>= 1.0v)	Percent of Units Tested with Voltage (>= 1.0v )
Distribution Overhead Facilities	288,212	42,880	14.88%	0	0.000%
Street Lights	5,888	2,528	42.93%	7	0.277%
Underground	13,870	3,250	23.43%	0	0.000%

**Attachment A**

**US Electricity Distribution - Rhode Island**  
**Capital Spend by Spending Rationale**  
**FY14 through December 31, 2013**  
**(\$000)**

	FYTD			FY 2014 Total		
	Budget	Actual	Variance	Budget	Forecast	Variance
<b>Statutory/Regulatory</b>	\$12,891	\$11,577	(\$1,314)	\$16,509	\$16,331	(\$178)
<b>Damage Failure</b>	\$7,492	\$11,509	\$4,017	\$10,050	\$13,706	\$3,656
<i>Subtotal Non-Discretionary</i>	\$20,383	\$23,086	\$2,703	\$26,559	\$30,036	\$3,477
<b>Asset Condition</b>	\$14,440	\$11,071	(\$3,369)	\$20,242	\$15,518	(\$4,724)
<b>Non-Infrastructure</b>	\$215	\$842	\$627	\$255	\$774	\$519
<b>System Capacity &amp; Performance</b>	\$8,343	\$14,569	\$6,226	\$12,544	\$22,647	\$10,103
<i>Subtotal Discretionary</i>	\$22,997	\$26,482	\$3,485	\$33,041	\$38,938	\$5,897
<b>Total Capital Investment in Systems</b>	<b>\$43,380</b>	<b>\$49,568</b>	<b>\$6,188</b>	<b>\$59,600</b>	<b>\$68,975</b>	<b>\$9,375</b>

\* ( ) denotes an underspend for the period

**Attachment B**

**US Electricity Distribution - Rhode Island**  
**Plant Additions By Spending Rationale**  
**FY14 through December 31, 2013**  
**(\$000)**

	<b>FY 14 Annual ISR Forecast</b>	<b>FYTD Actual in Service</b>	<b>Current FY14 Year End Forecast</b>	<b>% of Current Forecast Placed in Service</b>
<b>Statutory/Regulatory</b>	\$16,319	\$6,671	\$14,689	45%
<b>Damage Failure</b>	\$9,977	\$11,162	\$15,527	72%
<i>Subtotal Non-Discretionary</i>	\$26,296	\$17,833	\$30,216	59%
<b>Asset Condition</b>	\$17,954	\$3,696	\$8,456	44%
<b>Non- Infrastructure</b>	\$257	\$301	\$331	91%
<b>System Capacity &amp; Performance</b>	\$8,866	\$4,953	\$7,802	63%
<i>Subtotal Discretionary</i>	\$27,077	\$8,950	\$16,589	54%
<b>Total Capital Investment in Systems</b>	<b>\$53,373</b>	<b>\$26,783</b>	<b>\$46,805</b>	<b>57%</b>

**Attachment C**

**US Electricity Distribution - Rhode Island  
 O&M Vegetation Management Expenditures  
 FY14 through December 31, 2013  
 (\$000)**

	<b>FY 2014 Total Budget</b>	<b>FYTD Actual</b>	<b>FY 2014 Total Forecast</b>	<b>Variance</b>
<b>Vegetation Management</b>				
Cycle Pruning (Base)	\$5,230	\$3,800	\$5,130	\$(100)
Hazard Tree	\$750	\$578	\$700	\$(50)
Sub-T (on & off road)	\$724	\$332	\$624	\$(100)
Police/Flagman Details	\$525	\$641	\$800	\$275
Core Crew (all other actives)	\$1,247	\$922	\$1,247	\$0
<b>Total Vegetation Management</b>	<b>\$8,476</b>	<b>\$6,273</b>	<b>\$8,501</b>	<b>\$25</b>

	<b>FY14 Goal</b>	<b>FYTD Goal</b>	<b>FYTD Complete</b>	<b>% Complete vs. Scheduled FYTD</b>	<b>Annual % Complete vs. FY14 Goal</b>
<b>Distribution Mileage Trimming</b>	1,353	1,128	1,144	101%	85%

**Attachment D**

**US Electricity Distribution - Rhode Island**  
**Inspection and Maintenance Program Progress Update**  
**FY14 through December 31, 2013**  
**(\$000)**

	<b>FY14 Annual ISR Budget</b>	<b>FYTD Actual Spend</b>	<b>Current FY14 Year End Forecast</b>	<b>% Completed</b>
Opex Related to Capex	\$1,286	\$1,051	\$1,578	67%
Repair & Inspections Related Costs	\$2,493	\$1,182	\$1,200	98%
<b>Total Operation &amp; Maintenance Expense</b>	<b>\$3,779</b>	<b>\$2,233</b>	<b>\$2,778</b>	<b>80%</b>

	<b>FY14 Goal</b>	<b>FYTD Goal</b>	<b>FYTD Complete</b>	<b>% Complete vs. Scheduled FYTD</b>	<b>Annual % Complete vs. FY14</b>
<b>RI Distribution Overhead Structures Inspected</b>	57,352	43,362	42,304	97.5%	73.2%