

May 31, 2016

BY HAND DELIVERY AND ELECTRONIC MAIL

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

**RE: Docket 4539 - Electric Infrastructure, Safety, and Reliability Plan
Quarterly Update – Fourth Quarter Ending March 31, 3016**

Dear Ms. Massaro:

On behalf of National Grid, I have enclosed ten copies of the Company's fiscal year (FY) 2016 Electric Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the fourth quarter ending March 31, 2016. Pursuant to the provisions of the approved FY 2016 Electric ISR Plan, the Company committed to providing quarterly updates on the progress of its Electric ISR program to the Rhode Island Public Utilities Commission and the Rhode Island Division of Public Utilities and Carriers.

Thank you for your attention to this matter. If you have any questions, please contact me at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 4539 Service List
Leo Wold, Esq.
Steve Scialabba
James Lanni
Al Contente

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

May 31, 2016
Date

Docket No. 4539 National Grid's FY 2016 Electric Infrastructure, Safety and Reliability Plan - Service List as of 10/21/15

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Electric Infrastructure, Safety, and Reliability Plan

FY 2016 Quarterly Update

Fourth Quarter Ending March 31, 2016

EXECUTIVE SUMMARY

Through the fourth quarter of fiscal year 2016 (FY 2016), the Company¹ spent \$79.5 million for capital investment under the Electric Infrastructure, Safety, and Reliability (ISR) Plan, which was \$6.2 million over the annual approved budget of \$73.3 million. This over-budget variance was driven primarily by capital spending in the Non-Discretionary Sub-category, which was over-budget by \$5.1 million. Within this sub-category, the Customer Request/Public Requirement and Damage/Failure categories were over-budget by \$1.8 million and \$3.4 million respectively. Capital spending on the South Street project, which was managed as a separate Discretionary Sub-category, was \$6.2 million, which was \$1.7 million over the annual approved budget of \$4.5 million. Notably, early in FY 2016, the Company anticipated that capital spending would exceed the annual approved budget of \$4.5 million. Construction for the South Street project began in FY 2016 with site work, and engineering continued on electrical construction, which the Company expects will begin later in FY 2017 and continue through FY 2019. Capital spending on the Discretionary Sub-category, absent the South Street project, was \$41.3 million, which was \$0.6 under the annual approved budget of \$41.9 million. The key drivers and variances by category are discussed in detail in Section I below.

During the development of the FY 2017 Electric ISR Plan, the Company agreed with the Division's request to provide more detail on capital spending in the Damage/Failure category. Particularly, the information would include work type, location, and, where applicable, Level 1 Inspections and Maintenance (I&M) repairs completed with Damage/Failure funding. The Company has included additional detail on Level 1 I&M repairs in [Section 5](#) of this report and has included summary information on capital spending in the Damage/Failure category in [Attachment F](#) of this report. Attachment F is also included as an executable Excel file that organizes raw data captured in the Company's financial, asset, and work management systems.

¹The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

I. FY 2016 Capital Spending by Key Driver Category

1. Non-Discretionary Spending

a. Customer Request/Public Requirement - \$1.8 million over-budget for FY 2016

Capital spending for FY 2016 in the Customer Request/Public Requirement category (*previously called the Statutory/Regulatory category*) was \$17.4 million, which was approximately \$1.8 million over the FY 2016 budget of \$15.6 million. This variance was driven primarily by the following over-budget projects:

- Capital spending for FY 2016 on the New Business Residential and Commercial blankets was \$8.6 million, which was approximately \$2.0 million over the combined FY 2016 budget of \$6.6 million. Relative to FY 2014 and 2015, the major contributors to this over-budget variance were increased cost of labor benefits, fewer reimbursements collected, and a joint-ownership billing true-up with Verizon. Actual labor and material costs were also slightly higher.
- Capital spending for FY 2016 on the Meter Purchasing blanket was \$2.0 million, which was approximately \$0.8 million over the FY 2016 budget of \$1.2 million. This variance was due primarily to an accounting adjustment in April 2015 that reversed a credit unrelated to the blanket that was incorrectly applied in March 2015. These charges were correctly applied to the capital overheads project located in the Non-Infrastructure category and allocated across the capital portfolio.
- Capital spending for FY 2016 on the Nasonville 127W41 New Customer Load project was \$1.6 million, which was approximately \$1.0 million over the FY 2016 budget of \$0.6 million. This was due primarily to the FY 2016 budget being set before the final project grade estimate was available. The increase in project cost was due to ROW access that had not been previously planned or estimated for. This included swamp matting (which allow construction crews to operate equipment and machinery in wetlands and unstable terrains), specialty off-road construction equipment, and an increased labor cost to perform off-road construction. Overall, the project was completed in FY 2016 and was under the final project grade estimate for the project.

Among the major projects in this category, offsetting these over-spending projects were the following under-budget projects:

- Capital spending for FY 2016 on the Transformer Purchase blanket was \$1.4 million, which was approximately \$1.5 million under the FY 2016 budget of \$2.9 million. Inventory purchases in FY 2015 supplemented FY 2016 demand and, consequently, the blanket was under-budget for the fiscal year.
- Capital spending for FY 2016 on specific projects in the Public Requirements sub-category, particularly those related to Rhode Island Department of Transportation (RIDOT) projects, was under-budget by \$2.8 million. The Company has collected reimbursements for prior-year RIDOT projects, as well as for other public requirements projects that will be constructed in FY 2017. Also, several projects budgeted in FY 2016 were delayed by RIDOT.
- Capital spending for FY 2016 on the Street Light blanket was negligible at \$0.1 million. As the Company continues to decrease its street light assets, capital spending on this blanket will continue to decrease over time.
- Capital spending for FY 2016 on specific projects in the Distributed Generation sub-category was (\$0.9) million, which was \$1.6 million under the FY 2016 budget of \$0.6 million. This was due primarily to contributions in aid of construction (CIAC) on specific projects that will be constructed in FY 2017.

b. Damage/Failure - \$3.4 million over-budget for FY 2016

Capital spending for FY 2016 in the Damage/Failure category was \$14.5 million, which was approximately \$3.4 million over the FY 2016 budget of \$11.2 million. Refer to Attachment F for additional detail on the type of damage/failure groupings, the operational activities being performed, and the related capital expenditures. This over-budget variance was driven by the following reasons:

- Capital spending for FY 2016 on the Storm Capital Confirming program was \$3.2 million, which was approximately \$2.2 million over the FY 2016 budget of \$1.0 million. This variance was due primarily to the severe microburst storm on August 4, 2015. Refer to Attachment F and the executable Excel file submitted with this filing for additional detail on this category.
- Capital spending for FY 2016 on the Damage/Failure blanket was \$10.3 million, which was approximately \$1.8 million over the FY 2016 budget of \$8.5 million. The executable Excel file submitted with this report contains the specific detail for the many work orders under which spending occurred in FY 2016.

- Capital spending on the Damage/Failure blanket for monthly confirming work orders (CWOs) was \$6.9 million. These CWOs are used by local Operations to address immediate needs for capital construction to return the system or a customer's service to normal operating condition. This work is often done in response to customer outages or public emergencies. In addition, this work is generally in the area of overhead construction and can either be minor (i.e. residential service replacement) or major (i.e. pole replacements).
- Capital spending on the Damage/Failure blanket for work at the Franklin Square substation was \$0.9 million. This was for an emergency replacement of failed underground transformer cables, and the replacement of the substation's fire escape.
- A majority of the remaining \$2.5 million of capital spending on the Damage/Failure blanket was for work done in response to substation equipment failures, underground cable failures, street light outages, damaged/leaking pad-mounted transformer replacements, and overhead pole and equipment replacements.

2. Discretionary Spending

At the onset of FY 2016, the Company recognized that carry-over work from FY 2015, the South Street project, and several other multi-year discretionary projects budgeted in FY 2016 would result in capital spending that greatly exceeded the FY 2016 ISR discretionary budget of \$46.5 million. Therefore, using an approach that considered asset risk, project maturity, and resource availability, the Company investigated options to delay projects and scale-down programs. Project schedules, particularly within the System Capacity & Performance category, were either entirely delayed into future fiscal years or stretched to reduce FY 2016 capital spending (refer to Attachment E for additional detail). Monthly performance was closely monitored and, as needed, additional portfolio calibrations were made throughout the fiscal year. As a result of these portfolio management decisions, several large multi-year projects were under-budget in FY 2016. In addition, the Company began managing the South Street project as an individual portfolio and managing the remaining discretionary portfolio to that subtotal budget (refer to Attachment A for additional detail). This portfolio management is in line with a recommendation from the Division that was made during the FY 2017 ISR planning process.

a. Asset Condition - \$3.1 million over-budget for FY 2016

Capital spending for FY 2016 in the Asset Condition category was \$27.2 million, which was approximately \$3.1 million over the FY 2016 budget of \$24.1 million. This variance was driven primarily by the following over-budget projects:

- Capital spending for FY 2016 on the South Street Indoor Substation Replacement project was \$6.2 million, which was approximately \$1.7 million over the FY 2016 budget of \$4.5 million. The payments for engineering and design activities that were made throughout FY 2016, which were based on a schedule for the contract that was awarded to the vendor in early FY 2016, required funding that would exceed the FY 2016 budget. This budget was developed prior to obtaining this information and awarding the contract. The Company chose to advance work pursuant the contract schedule and, therefore, exceed the budget for FY 2016.
- Capital spending for FY 2016 on the Underground Cable Replacement portfolio was \$1.8 million, which was approximately \$1.1 million over the FY 2016 budget of \$0.7 million. The Feeder 1111 project was \$0.4 million over-budget based on the final design estimate that was completed in May 2015. The Company also completed \$0.3 million of secondary cable replacement work in FY 2016 and advanced engineering and material procurement for three projects budgeted for construction in FY 2017.
- Capital spending for FY 2016 on the Relay Replacement Strategy was \$1.2 million, which was approximately \$0.6 million over the FY 2016 budget of \$0.6 million. This variance was due primarily to higher than anticipated labor costs to complete construction at the Valley 102 substation. This was due primarily to the FY 2016 budget being set before the final project grade estimate was available.
- Capital spending for FY 2016 on the Breakers and Reclosers program was \$1.8 million, which was approximately \$0.8 million over the FY 2016 budget of \$1.0 million. This variance was due primarily to outage restrictions at the Lippitt Hill substation that prevented construction work from being performed during normal business hours. This caused both a construction duration increase as well as an increase in labor costs due to off-hours overtime work.
- Capital spending for FY 2016 on the Pontiac Substation Flood Restoration project was \$1.4 million, which was approximately \$0.3 million over the FY 2016 budget of \$1.1 million. This increase in project costs was due to the complexity of outage work and weather delays. The project scope was modified to relocate the control house grade-level cable tray penetration location.

Among the major projects in this category, offsetting these over-budget projects were the following under-budget projects:

- Capital spending for FY 2016 on the Arc Flash program was \$0.1 million, which was approximately \$0.5 million under the FY 2016 budget of \$0.6 million. This variance was due to Company standards issues with the underground primary switches that were being installed. As a result, the program was deferred until those issues could be resolved.
- Capital spending for FY 2016 on the Injection Replacement Underground Residential Development (IRURD) portfolio of projects was \$2.0 million, which was approximately \$0.5 million under the FY 2016 budget of \$2.5 million. The Company advanced the Wethersfield Commons project in lieu of the Wionkheige Drive Replacement project, which will instead commence in FY 2017. However, construction on the Wethersfield Commons project did not start until the third quarter of FY 2016, due to final design and scheduling delays, all which resulted in lower than anticipated capital spending for the fiscal year.
- In FY 2016, certain projects/programs in the Asset Condition category were either scaled-down or completely deferred into future fiscal years to achieve an overall capital spend for the discretionary portfolio that was approximate to the FY 2016 ISR budget. The table below details those projects:

Project	FY 2016 Total (\$000)		
	Annual ISR Budget	Actual	Variance
I&M Program	\$6.7	\$4.8	(\$1.9)
Westerly and Hope Flood Restoration Projects	\$1.3	\$0.2	(\$1.1)
Front Street and Southeast Substation Metal Clad Retirement Projects	\$0.5	\$0.1	(\$0.4)
Lafayette and West Cranston Substation Transformer Replacement Projects	\$0.8	\$0.3	(\$0.5)

b. Non-Infrastructure - \$0.2 million over-budget for FY 2016

Capital spending for FY 2016 in the Non-Infrastructure category was \$0.5 million, which was approximately \$0.2 million over the FY 2016 budget of \$0.3 million. There was no individual project with a significant budget variance in FY 2016.

c. System Capacity & Performance - \$2.2 million under-budget for FY 2016

Capital spending for FY 2016 in the System Capacity & Performance category was \$19.9 million, which was approximately \$2.2 million under the FY 2016 budget of \$22.1 million. This variance was driven primarily by the following under-budget projects:

- Capital spending for FY 2016 on the Chase Hill, New Highland Drive, New London, and Kent County substation expansion projects was \$4.7 million, which was approximately \$9.4 million under the FY 2016 budget of \$14.1 million. These projects were deferred to achieve an overall capital spend for the discretionary portfolio that was approximate to the FY 2016 ISR budget. Although some engineering, procurement, and construction activities were completed in FY 2016, significant portions of work were delayed into future fiscal years.

Among the major projects in this category, offsetting these under-budget projects were the following over-budget projects:

- Capital spending for FY 2016 on the Quonset Substation Expansion project was \$1.6 million, which was approximately \$1.2 million over the FY 2016 budget of \$0.5 million. The Company accelerated this project in FY 2016 to address asset and contingency risks at the existing substation.
- Capital spending for FY 2016 on the Aquidneck Island projects (Gate 2, Newport, and Jepson substations) was \$3.0 million, which was approximately \$0.9 million over the FY 2016 budget of \$2.1 million. Although the FY 2016 budget for the Gate 2 Substation project was only fifty thousand dollars to perform limited engineering and design in FY 2016, the total capital spending was \$1.4 million. This project was accelerated to address immediate load relief needs for summer 2016. Other projects in the Aquidneck Island portfolio were delayed to partially offset the increase in capital spending for the Gate 2 Substation project.
- Capital spending for FY 2016 on the Kilvert Street New Feeder, Clarke Street Feeder Upgrade, and the Johnston Substation Expansion projects was \$3.9 million, which was approximately \$2.5 million over the combined FY 2016 budget of \$1.4 million. In FY 2015, these projects were partially delayed by the Company into FY 2016 to achieve capital spending that was approximate to the FY 2015 ISR discretionary budget.

- Capital spending for FY 2016 on the Volt/Var project was \$2.2 million, which was approximately \$0.7 million over the FY 2016 budget of \$1.5 million. During the pilot implementation and construction phases, the complexities of commissioning the equipment and the communications network were greater than expected. This resulted in an increase in overall capital spending on the project.
- Capital spending for FY 2016 on the emergent, unbudgeted Clarkson 13F10 Feeder Position project was \$0.5 million. This distribution line project provided urgent load relief to other Clarkson #13 distribution feeders by utilizing an existing substation feeder position.

Finally, as noted above and as shown in Attachment A, capital spending through the fourth quarter of FY 2016 in the Discretionary Sub-category was \$47.6 million, which was approximately \$1.1 million over the FY 2016 annual budget of \$46.5 million. The Company exceeded the FY 2016 budget for the South Street project in order to achieve engineering and procurement milestones needed to deliver key future in-service dates in FY 2018 and FY 2019. The Company strived to manage both over and under-budget spending on the remaining discretionary projects to achieve an overall discretionary portfolio that was approximate to the \$42.0 million discretionary budget that excluded the South Street project. Notably, even though the South Street project was over-budget, assets are not anticipated to be in-service until FY 2018 and, therefore, do not impact the FY 2016 rate base.

In Docket No. 4473, the Rhode Island Public Utilities Commission (PUC) ordered the Company to include in the FY 2016 Electric ISR Plan filing a proposal to identify and report in quarterly and annual reconciliation filings the projects that exceeded or were under the fiscal year-to-date and fiscal year-end budgets by ten percent (10%).² For the identified projects, the Company would note whether variances were due to the project being accelerated or delayed, or whether the variances were due to an increase or decrease in total project cost. The Company agreed to provide in the quarterly reports, explanations for the portfolio of large projects³ with variances exceeding \$0.1 million. These projects represented approximately \$29.3 million of the FY 2016 annual budget. This information is shown in Attachment E.

II. Investment Placed in Service

In FY 2016, \$71.5 million was placed in service, which was \$6.0 million under the annual planned amount of \$77.5 million. The Non-Discretionary Sub-category had \$36.0 million of

² Docket No. 4473 Order No. 21559 at p. 25.

³ Large projects are defined as exceeding \$1.0 million in total project cost.

plant additions placed in service, which was \$8.1 million over the planned amount of \$27.9 million. This variance is partially explained by the \$5.1 million over-budget variance in the Damage/Failure category in FY 2016.

The Discretionary Sub-category had \$35.5 million of plant additions placed in service, which was \$14.1 million under the planned amount of \$49.6 million. This variance was due primarily to the deferral of the Chase Hill, New Highland Drive, New London, and Kent County substation expansion projects in the System and Performance category. Also contributing to this variance was the deferral of the Westerly and Hope Flood Restoration projects, the Front Street and Southeast substation metal clad retirement projects, and the Arc Flash program, as well as a lower than anticipated amount of I&M work being placed into service under the Asset Condition category. Furthermore, capital spending on the South Street project, which was a significant percentage of the Discretionary Sub-category of the FY 2016 annual approved budget, will not result in asset additions until FY 2018 and beyond.

A summary by spending rationale is included in Attachment B.

III. Vegetation Management (VM)

Through the fourth quarter of FY 2016, the Company completed 100% of its annual distribution mileage cycle pruning goal of 1,232 miles. This represented an associated spend of 100% of the FY 2016 budget for the cycle pruning program. For FY 2016, the Company's VM operation and maintenance (O&M) spending was on budget at \$8.7 million.

Attachment C provides the FY 2016 spending for all sub-components in the VM category.

IV. Inspection and Maintenance (I&M)

Through the fourth quarter of FY 2016, the Company completed 100% of its annual structure inspection goal of 49,670. For FY 2016, the Company's I&M O&M spending was \$1.2 million, which was \$2.1 million under the I&M annual approved budget of \$3.3 million. This year-end under-budget variance was driven primarily by the Opex Related to Capex subcategory. As noted earlier in Section I of this report, the capital components of the I&M program were scaled-down due to portfolio management decisions, resulting in lower Opex Related to Capex. The Repairs and Inspection Related Costs subcategory included the FY 2016 mobile elevated voltage testing and repairs, which the PUC approved in Docket No. 4237. Attachment D provides the FY 2016 spending for all components within the I&M category.

In FY 2011, the Company began performing inspections on its overhead distribution system. In FY 2012, the Company began performing repairs based on those inspections. The Company categorizes the deficiencies found as Level I, II, or III, and repairs Level I deficiencies either immediately or within approximately one week of inspection. The Company bundles Level II and III work for planned replacement. Through FY 2016, the Company has completed repairs

on approximately 31% of the deficiencies found. Total deficiencies found and repairs made as of March 31, 2016 are shown in the tables below. Additional detail on FY 2016 Level 1 repairs is also included in these tables.

Summary of Deficiencies and Repair Activities				
RI Distribution				
Year Inspection Performed	Priority Level/Repair Expected	Deficiencies Found (Total)	Repaired as of 03/31/16	Not Repaired as of 03/31/16
FY 2011	I	18	18	0
	II	13,146	12,600	546
	III	28	0	28
FY 2012	I	17	17	0
	II	15,848	15,256	592
	III	626	491	135
FY 2013	I	15	15	0
	II	26,882	10,200	16,682
	III	9,056	2,158	6,898
FY 2014	I	11	11	0
	II	23,196	2,175	21,021
	III	8,776	1,153	7,623
FY 2015	I	5	5	0
	II	21,549	1	21,548
	III	4,391	0	4,391
FY 2016	I	2	2	0
	II	11,596	0	11,596
	III	6,498	0	6,498
Total Since Program Inception	I, II, III	141,660	44,102	97,558

FY 2016 – I&M Level 1 Deficiencies Repaired						
Year Inspection Performed	Deficiencies Found	Structure Number	Location	Description of Work Performed	Inspection Date	Repaired Date
FY 2016	1	32-8	South Rd, South Kingston RI	Secondary riser needs plastic pipe or u-shield about 2' long 3" in diameter.	4/15/2015	4/21/2015
	1	4-1	Fabien St, Woonsocket RI	Cutout tap burned.	11/24/2015	11/25/2015

As shown in the table below titled “Manual Elevated Voltage Testing”, results of the Company’s manual elevated voltage testing for FY 2016 indicated one instance of elevated voltage greater than 1 volt. On June 22, 2015, a padmounted transformer at 455 North Main Road in Jamestown Rhode Island recorded a voltage reading of 12 volts. The unit was guarded and made safe until repairs were made. On November 14, 2015, the unit was retested and a safe voltage reading of 0.72 volts was recorded.

Manual Elevated Voltage Testing				
	Total System Units Requiring Testing	FY 2016 Units Completed thru 03/31/16	Units with Voltage Found (>1.0v)	Percent of Units Tested with Voltage (>1.0v)
Distribution Facilities	262,359	45,067	0	0.000%
Underground Facilities	13,870	2,540	1	0.039%
Street Lights	5,884	1,150	0	0.000%

*The Rhode Island Street Light Elevated Voltage Testing Program moved from a five-year to a three-year program. The Company achieved a 100% completion rate in FY 2014. The new three-year cycle began again in FY 2015.

Attachment A
US Electricity Distribution – Rhode Island
Capital Spend by Spending Rationale
FY 2016 Ending March 31, 2016

	FY 2016 Total		
	Annual ISR Budget	Actual	Variance
Customer Request/Public Requirement	\$15,647,000	\$17,412,295	\$1,765,295
Damage/Failure	\$11,177,000	\$14,531,159	\$3,354,159
<i>Subtotal Non-Discretionary</i>	<i>\$26,824,000</i>	<i>\$31,943,454</i>	<i>\$5,119,454</i>
Asset Condition	\$19,513,000	\$20,951,394	\$1,438,394
Non-Infrastructure	\$275,000	\$457,388	\$182,388
System Capacity & Performance	\$22,148,000	\$19,919,704	(\$2,228,296)
<i>Subtotal Discretionary (Without South Street)</i>	<i>\$41,936,000</i>	<i>\$41,328,486</i>	<i>(\$607,514)</i>
<i>South Street Project</i>	<i>\$4,540,000</i>	<i>\$6,227,567</i>	<i>\$1,687,567</i>
<i>Subtotal Discretionary</i>	<i>\$46,476,000</i>	<i>\$47,556,053</i>	<i>\$1,080,053</i>
Total Capital Investment in System	\$73,300,000	\$79,499,507	\$6,199,507

* () denotes an underspend for the period

Attachment B
US Electricity Distribution - Rhode Island
Plant Additions by Spending Rationale
FY 2016 Ending March 31, 2016

	FY 2016 Total		
	Annual ISR Forecast	Actual in Service	Variance
Customer Request/Public Requirement	\$16,611,000	\$19,593,559	\$2,982,559
Damage Failure	\$11,299,000	\$16,370,879	\$5,071,879
<i>Subtotal Non-Discretionary</i>	<i>\$27,910,000</i>	<i>\$35,964,438</i>	<i>\$8,054,438</i>
Asset Condition	\$25,354,000	\$18,532,553	(\$6,821,447)
Non-Infrastructure	\$277,000	\$110,598	(\$166,402)
System Capacity & Performance	\$23,934,000	\$16,845,313	(\$7,088,687)
<i>Subtotal Discretionary</i>	<i>\$49,565,000</i>	<i>\$35,488,464</i>	<i>(\$14,076,536)</i>
Total Plant Investment in System	\$77,475,000	\$71,452,902	(\$6,022,098)

* () denotes an underspend for the period

Attachment C
US Electricity Distribution - Rhode Island
Vegetation Management O&M Spending
FY 2016 Ending March 31, 2016

	FY 2016			
	Annual ISR Budget	Actual Spend	Variance	% Spent
Cycle Pruning (Base)	\$5,414,000	\$5,435,000	\$21,000	100%
Hazard Tree	\$1,000,000	\$937,000	(\$63,000)	94%
Sub-T (on & off road)	\$220,000	\$209,000	(\$11,000)	95%
Police/Flagman Details	\$750,000	\$772,000	\$22,000	103%
Core Crew (all other activities)	\$1,500,000	\$1,540,000	\$40,000	103%
Total VM O&M Spending	\$8,884,000	\$8,893,000	\$9,000	100%

* () denotes an underspend for the period

	FY 2016		
	Goal	Complete	% Complete
Distribution Mileage Trimming	1,232	1,232	100%

Attachment D
US Electricity Distribution - Rhode Island
Inspection and Maintenance Program O&M Spending
FY 2016 Ending March 31, 2016

	FY 2016 Total			
	Annual ISR Budget	Actual	Variance	% Spent
Opex Related to Capex	\$1,885,000	\$577,289	(\$1,307,711)	31%
Repair & Inspections Related Costs	\$1,423,000	\$606,547	(\$816,453)	43%
System Planning & Protection Coordination Study	\$25,000	\$12,920	(\$12,080)	52%
Total I&M O&M Spending	\$3,333,000	\$1,196,755	(\$2,136,245)	36%

* () denotes an underspend for the period

	FY 2016 Total		
	Goal	Complete	% Complete
RI Distribution Overhead Structures Inspected	49,670	49,670	100%

Attachment E
US Electricity Distribution - Rhode Island
Project Variance Report
FY 2016 Ending March 31, 2016

Project Description	Project Funding Number(s)	FY 2016 Total			Variance Cause
		Annual ISR Budget	Actual	Variance	
Nasonville 127W41 New Customer Load	C049981	\$553,000	\$1,583,893	\$1,030,893	Project costs increased
Aquidneck Island Projects (Gate 2, Newport, Jepson)	CD00649, C024159, C015158, C028628, C054054, CD00656	\$2,050,000	\$2,954,319	\$904,319	Gate 2 project was accelerated.
Chase Hill Substation	C024175, C024176	\$4,900,000	\$3,276,976	(\$1,623,024)	Project partially delayed into FY 2017 and FY 2018.
Johnston Substation Expansion	C033535	\$0	\$415,429	\$415,429	The costs for this project increased in FY 2015 and carried over into FY 2016.
Kilvert Street #87 Upgrades	C036516, C036522	\$1,100,000	\$2,016,197	\$916,197	Project delayed from FY 2015 into FY 2016.
Clarke Street Upgrades	C046831, C046832	\$250,000	\$1,449,623	\$1,199,623	Project delayed from FY 2015 into FY 2016.
Quonset Substation Expansion	C053646, C053647	\$480,000	\$1,640,372	\$1,160,372	Project accelerated.
New Highland Drive Substation	CD00972, CD00978	\$1,200,000	(\$468,870)	(\$1,668,870)	Substation is complete and costs decreased in FY 2016. The final d-line project was delayed into FY 2018.
Kent County 2nd Transformer	CD01101, CD01104	\$1,200,000	\$315,875	(\$884,125)	Project delayed into FY 2017.
South Street Substation Replacement	C051212, C051213	\$4,540,000	\$6,227,567	\$1,687,567	Project accelerated. Overall project costs increased when preliminary engineering for contract award was completed in early FY 2016.
Volt/Var Pilot Program	C046352, C052708, C053111	\$1,464,000	\$2,212,462	\$748,462	Increased costs.
New London Avenue Substation	C032002, C028920, C028921	\$6,800,000	\$1,559,756	(\$5,240,244)	Project partially delayed into FY 2017 and FY 2018.
Westerly Flood Restoration	C055215, C036527	\$650,000	\$243	(\$649,757)	Project delayed to FY 2018.
Hope Substation Flood Restoration	C046697	\$612,000	\$159,897	(\$452,103)	Project partially delayed into FY 2017 and FY 2018.

Metal Clad Substation Retirements (Hyde Ave., Daggett Ave., Southeast, and Front St.)	C050778, C049910, C051274, C051200, C053658, C053657, C051273, C050006, C050017	\$1,800,000	\$2,094,141	\$294,141	Scope and costs increased on Daggett/Hyde. Front/Southeast delayed until FY 2017 to partially offset increase.
Pontiac Substation Flood Restoration	CD01243, CD01242	\$1,090,000	\$1,411,467	\$321,467	Increase in project
BITS Wakefield Sub Upgrades	C046386	\$595,000	\$214,156	(\$380,844)	Project was partially delayed into FY 2017
		\$29,344,000	\$27,121,672	(\$2,222,328)	

* () denotes an underspend for the period

Attachment F
US Electricity Distribution - Rhode Island
Damage/Failure Detail by Work Type
FY 2016 Ending March 31, 2016

		Project Type					Grand Total
		D-Line Blanket	D-Line Property Damage	D-Line Storm	D-Sub Blanket	D-Sub Specific	
Operation Description Rollup	AFUDC	\$16,663	\$0	\$18,380	(\$1,042)	\$9,013	\$43,014
	Default Accounting	\$2,079,928 ¹	\$162,131	(\$1,657,677) ²	\$110,821	\$14,284	\$709,486
	Engineering/Design/Supervision	\$954,530	\$65,728	\$302,465	\$14,892	\$326,021 ³	\$1,663,636
	Metering	\$429	\$0	\$0	\$0	\$0	\$429
	Outdoor Lighting - Cable/Wire	\$56,506	\$815	\$5	\$0	\$0	\$57,326
	Outdoor Lighting - Civil	\$4,140	\$0	\$0	\$0	\$0	\$4,140
	Outdoor Lighting - Framing	\$173,569	\$4,705	\$3,314	\$0	\$0	\$181,588
	Outdoor Lighting - Poles	\$81,482	\$14,625	\$0	\$0	\$0	\$96,107
	Overhead Bonding/Grounding	\$16,143	\$1,404	\$1,336	\$0	\$0	\$18,883
	Overhead Switches/Reclosers/Fuses	\$599,963	\$29,650	\$72,464	\$0	\$0	\$702,077
	Overhead Transformers/Capacitors/Regulators	\$677,157	\$28,962	\$182,887	\$0	\$0	\$889,006
	Overhead Wire & Conductor	\$516,888 ⁴	\$33,093	\$209,075	\$0	\$0	\$759,056
	Pole Framing	\$288,885 ⁵	\$38,883	\$82,641	\$0	\$0	\$410,409
	Poles/Anchors/Guying	\$1,519,495 ⁶	\$257,994	\$3,719,078 ⁷	\$0	\$0	\$5,496,567
	Reimbursements	(\$86,510) ⁸	\$17,238	\$0	\$913	\$0	(\$68,359)
	Substation Equipment Installations	\$34,383	\$0	\$0	\$280,221	\$18,046	\$332,650
	Substations Civil/Structural	\$0	\$0	\$0	\$0	\$63,571	\$63,571
	Switching and Restoration	\$10,770	\$1,061	\$10,939	\$1,544	\$0	\$24,313
	Traffic Control	\$420,409	\$56,731	\$52,024	\$0	\$321	\$529,485
	Underground Cable	\$1,119,806 ⁹	\$49,720	\$27,862	\$0	\$0	\$1,197,388
	Underground Cable Splicing	\$120,461	(\$7,731)	\$1,112	\$0	\$0	\$113,842
	Underground Civil Infrastructure	\$208,098	\$6,685	\$3,595	\$0	\$0	\$218,378
	Underground Services	\$41,151	\$1,253	\$1,659	\$0	\$0	\$44,063
	Underground Switches/Reclosers/Fuses	\$73,161	(\$1,377)	\$22,831	\$0	\$0	\$94,615
	Underground Transformers/Capacitors/Regulators	\$140,679	\$426	\$8,551	\$0	\$0	\$149,656
Grand Total	\$9,068,185	\$761,996	\$3,062,541	\$407,348	\$431,254	\$13,731,324	

() denotes an underspend for the period

Footnotes:

1. In some cases, the default accounting operation is used to capture work performed.
2. Storm adjustments made to D-line Storm projects are captured under the default accounting operation.
3. These costs are predominately associated with the Franklin Square project, which mistakenly classified charges to the Engineering/Design/Supervision operation.
4. This operation is significantly impacted by monthly Confirming Work Orders (CWOs).
5. This operation is significantly impacted by monthly CWOs.
6. This operation is significantly impacted by monthly CWOs.
7. Capital charges for this operation were greatly affected by the severe microburst storm on August 4, 2015.
8. Due to the timing of some property damage work orders, some reimbursements have been applied to blanket work orders for closeout.
9. Approximately \$1.0 million of capital spending in this category was spent at the Franklin Square substation for an emergency replacement of failed underground transformer cables, and the replacement of the substation's fire escape.