

November 16, 2017

**BY HAND DELIVERY AND ELECTRONIC MAIL**

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

**RE: Docket 4682 - Electric Infrastructure, Safety, and Reliability Plan  
Quarterly Update – First Quarter Ending September 30, 2017**

Dear Ms. Massaro:

On behalf of National Grid,<sup>1</sup> I have enclosed ten copies of the Company's fiscal year (FY) 2018 Electric Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the second quarter ending September 30, 2017. Pursuant to the provisions of the approved FY 2018 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 4682 Service List  
Leo Wold, Esq.  
Steve Scialabba  
Al Contente

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

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

### **FY 2018 Quarterly Update**

#### **Second Quarter Ending September 30, 2017**

#### **EXECUTIVE SUMMARY**

Through the second quarter of fiscal year 2018 (FY 2018), the Company<sup>1</sup> spent \$37.4 million for capital investment projects against a FY 2018 year-to-date (YTD) budget of \$48.2 million. Overall, spending for FY 2018 through the second quarter was under-budget by approximately \$10.8 million. The Non-Discretionary category was approximately \$4.8 million under-budget, and the Discretionary category was approximately \$6.0 million under-budget. The South Street project made up \$2.8 million of the Discretionary under-budget spending. At this time, the Company anticipates that the overall capital spend for the FY 2018 fiscal year will be \$96.5 million, which is approximately \$4.1 million under the annual approved budget of \$100.6 million. Each category is addressed in more detail below.

On July 11, 2016, the Rhode Island Public Utilities Commission (PUC) issued an Order<sup>2</sup> directing the Company 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.

In Order No. 22471, the PUC also directed the Company to manage the South Street ISR Plan budget separate from other discretionary projects in the Plan. The Company also agreed to provide a quarterly budget and project management report on the South Street project. The latest report for October 2017 is included as Attachment G of this report.

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

<sup>2</sup> Written Order No. 22471 (issued on July 11, 2016 in Docket No. 4592).

## I. FY 2018 Capital Spending by Key Driver Category

### 1. Non-Discretionary Spending

#### **a. Customer Request/Public Requirement - \$6.3 million under-budget variance YTD**

Capital spending through the second quarter of FY 2018 in the Customer Request/Public Requirement category (*previously called the Statutory/Regulatory category*) was approximately \$5.9 million, which was \$6.3 million under the FY 2018 YTD budget of \$12.1 million. This under-budget variance was driven primarily by the following under-budget projects:

- The net YTD spending on “Distributed Generation” project spending is a credit of \$2.6 million, which results in a total under-budget balance of \$3.7 million. This variance was driven primarily by the Company’s collection of reimbursements for prior and future capital spending on projects.
- Capital spending for FY 2018 YTD on New Business Residential and Commercial projects was a combined \$3.2 million under-budget. This under-budget variance was also driven by capital spending on the liquefied natural gas (LNG) Plant service terminal in Providence, which was under-budget FY 2018 YTD by approximately \$2.7 million. This variance was due to a reimbursement the Company received in FY 2018 (April 2017), which the Company expected in FY 2017 (March 2017).

Among the major projects in this category, the following over-budget projects offset these under-budgets projects:

- Capital spending for FY 2018 YTD on the Citizens Bank Infrastructure Project was \$0.8 million. This project was not budgeted for the fiscal year.
- Capital spending for FY 2018 YTD on Meter Purchases was \$1.2 million, which was \$0.3 million over the fiscal YTD budget of \$0.9 million due to delivery of meter inventory earlier than planned.
- Capital spending for FY 2018 YTD on the Public Requirements projects was \$1.3 million, which was over-budget by \$0.3 million. This variance is primarily driven by higher spending on Department of Transportation projects.

Currently, the Company forecasts that for FY 2018, capital spending for the Customer Request/Public Requirement category will be \$16.2 million, which is approximately \$5.6

million under the annual approved FY 2018 category budget of \$21.9 million. This variance is driven primarily by the reimbursements received in fiscal year 2018 for the Distribution Generation projects and the LNG Plant service terminal project.

***b. Damage/Failure - \$1.5 million over-budget variance YTD***

Capital spending through the second quarter of FY 2018 in the Damage/Failure category was \$7.2 million, which was approximately \$1.5 million over the FY 2018 YTD budget of \$5.7 million for this category. This variance was driven primarily by the following over-budget projects:

- Capital spending on the distribution line Damage/Failure Blanket was over-budget by approximately \$1.7 million. The Company monitors charges to this blanket to minimize discretionary work from being incorrectly charged to this project.
- Capital spending on the Franklin Square Protection project was \$0.2 million for fiscal YTD. This project was not initially budgeted for FY 2018.

Among the major projects in this category, the following project, which was under-budget, offset these over-spending projects:

- Capital spending on the Storm Capital Confirming program was under-budget by \$0.3 million through the second quarter.

Currently, the Company forecasts that for FY 2018, capital spending for the Damage Failure category will be \$13.8 million, which is approximately \$2.4 million over the annual approved FY 2018 category budget of \$11.4 million. This variance is driven primarily by the distribution line damage/failure spending.

In summary, as shown in Attachment A, capital spending through the second quarter of FY 2018 in the Non-Discretionary Sub-category was \$13.0 million, which was approximately \$4.8 million under the FY 2018 YTD budget of \$17.8 million. At this time, the Company forecasts that capital spending in the Non-Discretionary Sub-category will be \$30.0 million, which is approximately \$3.2 million under the annual approved FY 2018 budget of approximately \$33.2 million.

## **2. Discretionary Spending**

### **a. Asset Condition (without South Street) - \$1.4 million under-budget variance YTD**

Capital spending through the second quarter of FY 2018 YTD in the Asset Condition category (absent the South Street project) was approximately \$8.0 million, which was \$1.4 million under the FY 2018 YTD budget of approximately \$9.3 million. The total variance for this category was driven primarily by the following under-budget projects:

- Capital spending for FY 2018 YTD on the Underground Residential Development Injection/Rehabilitation and the RI Underground Cable Replacement Program projects was a combined \$1.0 million, which was approximately \$2.2 million under the fiscal YTD budget of approximately \$3.2 million. This variance was due to construction now being scheduled to the second half of the fiscal year.
- Capital spending for FY 2018 YTD for the West Cranston Transformer project was approximately \$0.2 million for the FY 2018 YTD, which was \$0.3 million under the fiscal YTD budget of \$0.5 million.

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

- Capital spending for FY 2018 YTD for the Ocean State Asset Replacement Blanket was approximately \$2.1 million, which was \$1.0 million over the fiscal YTD budget of \$1.1 million. This variance was due to higher than anticipated spending on small-scale asset replacement work.
- The Company advanced an unbudgeted project to replace extremely deteriorated station structure and equipment at the Geneva Substation. The Company spent \$0.4 million on the project, and construction is complete.

At this time, for FY 2018, the Company forecasts that capital spending for the Asset Condition category, excluding the South Street project, will be approximately \$19.2 million, which is \$2.2 million over the annual approved category budget of \$17.0 million.

### **b. Non-Infrastructure – \$0.4 million under-budget variance YTD**

Capital spending for FY 2018 YTD for the Non-Infrastructure category was approximately \$0.4 million under-budget due to accounting credit charges. These charges will be cleared to the appropriate work orders through the normal capital allocation process.

**c. System Capacity and Performance - \$1.4 million under-budget variance YTD**

Capital spending through the second quarter of FY 2018 for the System Capacity and Performance category was \$10.0 million, which was approximately \$1.4 million under the FY 2018 YTD budget of \$11.4 million. This YTD variance was driven primarily by the timing of construction that was later than originally planned within the fiscal year on the following under-budget projects:

- Capital spending on the Volt/Var Pilot Project for FY 2018 YTD was approximately \$0.6 million, which was approximately \$0.8 million under the fiscal year budget of \$1.4 million. Construction is planned for later this fiscal year.
- Capital spending for FY 2018 YTD on the Aquidneck Island projects was \$1.0 million, which was approximately \$1.3 million under the YTD budget of \$2.3 million for the project.
- Capital spending for FY 2018 YTD on the New Highland Drive Substation project was \$0.9 million, which was \$0.4 million under the YTD budget of \$1.3 million for the project.

Quonset Substation Expansion project was a major project in this category that offset the under-budget projects. Specifically:

- Capital spending for FY 2018 YTD on the Quonset Substation Expansion project was \$2.1 million, which was \$0.7 million over the YTD budget of \$1.4 million. This YTD variance was driven by the Company's receipt of materials earlier than planned. The cost estimate on this project is also higher than planned. Therefore, the Company expects that this project will be approximately \$1.1 million over-budget by the end of the fiscal year.

At this time, for FY 2018, the Company forecasts that capital spending for the System Capacity and Performance category will be approximately \$24.6 million, which is approximately \$0.5 million over the approved budget of \$24.1 million for FY 2018 for this category. The Company is currently evaluating the over budget variances in this category and may defer projects and/or scale-down programs to achieve a year-end forecast that is approximate to budget.

**d. South Street Project – \$2.8 million under-budget variance YTD**

Capital spending for the second quarter of FY 2018 on the South Street Indoor Substation Replacement project was approximately \$6.5 million, which is \$2.8 million under the fiscal YTD budget of \$9.4 million. The primary driver for this variance is the current capital

overhead allocations, which are lower than the original estimates. The second driver for this variance is the timing of FY 2018 payments that result in a YTD variance but will not carry forward as a year-end variance. As a result, the Company expects the year-end forecast for this project to be approximately \$2.4 million under the fiscal year-end budget of \$25.8 million. This variance will be due primarily to the lower allocation charge.

Finally, as noted above and as shown in Attachment A, capital spending through the second quarter of FY 2018 in the Discretionary Sub-category was \$24.4 million, which was approximately \$6.0 million under the FY 2018 YTD budget of \$30.4 million. The Company forecasts that for FY 2018, capital spending for the Discretionary Sub-category will be \$66.4 million, which is approximately \$0.9 million under the annual approved budget of \$67.4 million. As noted above, the Company is managing the South Street project, which the Company expects will be \$2.4 million under-budget at the end of the fiscal year. This is separate from the remaining Discretionary Sub-category. Projects in the Discretionary Sub-category will be managed to the \$41.6 million budget.

In Docket No. 4473, the PUC ordered the Company to include, beginning with the FY 2017 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%).<sup>3</sup> For the identified projects, the Company must 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 projects<sup>3</sup> with variances that exceed +/- 10% of the annual fiscal year budget. These projects represent approximately \$17.0 million of the FY 2018 budget of \$100.6 million. This information is provided in Attachment E.

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<sup>3</sup> Docket No. 4473 Order No. 21559 at p. 25.

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

### **3. Investment Placed-in-Service**

Overall, \$22.1 million of investment (29% of the fiscal year-end forecast) was placed-in-service through the second quarter of FY 2018. At this time, the Company's expects placing portions of the South Street project in-service later in FY 2018. The Company forecasts that plant-in-service will be \$76.2 million at the end of the fiscal year, which is an increase from the original FY 2018 Electric ISR Plan forecasted amount of \$74.8 million. Details by spending rationale are included in Attachment B.

### **4. Vegetation Management (VM)**

Through the second quarter of FY 2018, the Company completed 46% of its annual distribution mileage cycle pruning goal of 1,270 miles. This represented an associated spend of 42% of the FY 2018 budget for the cycle pruning program. For FY 2018, the Company's VM operation and maintenance (O&M) spending is forecasted to be on budget at \$9.4 million.

Attachment C provides the FY 2018 spending for all sub-components in the VM category.

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

Through the second quarter of FY 2018, the Company completed 44% of its annual structure inspection goal of 53,128 with an associated spend of approximately \$0.2 million, or approximately 30% of the Repair and Inspections Related Cost subcategory budget. The Repairs and Inspection Related Costs subcategory forecast includes the FY 2018 mobile elevated voltage testing and repairs, which the PUC approved in Docket No. 4237. Attachment D provides the FY 2018 spending for all components in the I&M category.

The Company began performing inspections on its overhead distribution system in FY 2011, and, in FY 2012, began performing the 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 the inspection. The Company bundles Level II and III work for planned replacement. At this time, the Company has completed repairs reported for approximately 32% of the total deficiencies found. Total deficiencies found and repairs made-to-date are shown in the table below.

<b>Summary of Deficiencies and Repair Activities RI Distribution</b>				
<b>Year Inspection Performed</b>	<b>Priority Level/Repair Expected</b>	<b>Deficiencies Found (Total)</b>	<b>Repaired as of 09/30/17</b>	<b>Not Repaired as of 09/30/17</b>
<b>FY 2011</b>	I	18	18	0
	II	13,146	13,128	18
	III	28	28	0
<b>FY 2012</b>	I	17	17	0
	II	15,847	15,454	393
	III	626	567	59
<b>FY 2013</b>	I	15	15	0
	II	26,882	15,014	11,868
	III	9,056	4,188	4,868
<b>FY 2014</b>	I	11	11	0
	II	23,196	2,612	20,584
	III	8,776	1,350	7,426
<b>FY 2015</b>	I	5	5	0
	II	21,549	1	21,548
	III	4,391	0	4,391
<b>FY 2016</b>	I	2	2	0
	II	11,596	0	11,596
	III	6,498	0	6,498
<b>FY 2017</b>	I	2	2	0
	II	8,300	0	8,300
	III	7,539	0	7,539
<b>FY 2018</b>	I	5	5	0
	II	3,545	0	3,545
	III	3,586	0	3,586
<b>Total Since Program Inception</b>	<b>I, II, III</b>	<b>164,636</b>	<b>52,417</b>	<b>112,219</b>

<b>FY 2018 – I&amp;M Level 1 Deficiencies Repaired</b>						
<b>Year Inspection Performed</b>	<b>Deficiencies Found</b>	<b>Structure Number</b>	<b>Location</b>	<b>Description of Work Performed</b>	<b>Inspection Date</b>	<b>Repaired Date</b>
<b>2017</b>	1	96	Main Rd., Tiverton	Repaired floating insulator	5/11/2017	5/12/2017
	1	91	Armistice Blvd., Pawtucket	Repaired broken neutral	6/14/2017	6/14/2017
	1	21	Cleveland St., Pawtucket	Cut down street light service wire	6/19/2017	6/19/2017
	1	16	Lafayette St., Pawtucket	New service and secondary pole	6/26/2017	6/29/2017

As shown in the table below, results of the Company’s manual elevated voltage testing for FY 2018 have not indicated any instances of elevated voltages found through either overhead or manual elevated voltage inspections.

<b>Manual Elevated Voltage Testing</b>				
<b>Manual Elevated Voltage Testing</b>	<b>Total System Units Requiring Testing</b>	<b>FY 2018 Units Completed thru 09/30/17</b>	<b>Units with Voltage Found (&gt;1.0v)</b>	<b>Percent of Units Tested with Voltage (&gt;1.0v)</b>
Distribution Facilities	250,441	21,845	2	0%
Underground Facilities	13,870	1,525	0	0%
Street Lights	5,884	0	0	0%

**Attachment A**  
**US Electricity Distribution - Rhode Island**  
**Capital Spending by Spending Rationale**  
**FY 2018 through September 30, 2017**  
**(\$000)**

	FYTD			FY 2018 Total		
	Budget	Actual	Variance	Budget	Forecast	Variance
<b>Customer Request/Public Requirement</b>	\$12,139	\$5,869	(\$6,270)	\$21,853	\$16,212	(\$5,641)
<b>Damage Failure</b>	\$5,684	\$7,154	\$1,470	\$11,379	\$13,788	\$2,409
<i>Subtotal Non-Discretionary</i>	\$17,822	\$13,022	(\$4,800)	\$33,232	\$30,000	(\$3,232)
<b>Asset Condition</b>	\$9,342	\$7,975	(\$1,368)	\$16,972	\$19,171	\$2,199
<b>Non-Infrastructure</b>	\$276	(\$189)	(\$465)	\$553	(\$722)	(\$1,275)
<b>System Capacity &amp; Performance</b>	\$11,464	\$10,078	(\$1,387)	\$24,092	\$24,641	\$549
<i>Subtotal Discretionary (Without South Street)</i>	\$21,083	\$17,863	(\$3,220)	\$41,617	\$43,090	\$1,473
<b>South Street Project</b>	\$9,367	\$6,533	(\$2,834)	\$25,772	\$23,381	(\$2,391)
<i>Subtotal Discretionary</i>	\$30,450	\$24,396	(\$6,054)	\$67,389	\$66,471	(\$918)
<b>Total Capital Investment in System</b>	<b>\$48,272</b>	<b>\$37,418</b>	<b>(\$10,854)</b>	<b>\$100,621</b>	<b>\$96,471</b>	<b>(\$4,150)</b>

( ) denotes an underspend for the period

\*FY 2018 impact of change in capital overhead allocation results in shift between categories, but no impact to total capital clearing costs.

**Attachment B**  
**US Electricity Distribution - Rhode Island**  
**Plant Additions by Spending Rationale**  
**FY 2018 through September 30, 2017**  
**(\$000)**

	<b>FY 2018 Annual ISR Forecast</b>	<b>FYTD Actual in Service</b>	<b>FY 2018 Year- end Forecast</b>	<b>% of FY 2018 Year-end Forecast Placed in Service</b>
<b>Customer Request/Public Requirement</b>	\$20,202	\$6,856	\$14,049	49%
<b>Damage Failure</b>	\$12,529	\$5,849	\$10,702	55%
<i>Subtotal Non-Discretionary</i>	\$32,731	\$12,705	\$24,750	51%
<b>Asset Condition (w/South Street)</b>	\$22,199	\$6,561	\$37,160	18%
<b>Non- Infrastructure</b>	\$0	\$3	\$3	100%
<b>System Capacity &amp; Performance</b>	\$19,913	\$2,829	\$14,320	20%
<i>Subtotal Discretionary</i>	\$42,112	\$9,393	\$51,482	18%
<b>Total Capital Investment in System</b>	<b>\$74,843</b>	<b>\$22,097</b>	<b>\$76,232</b>	29%
* ( ) denotes an underspend for the period				

**Attachment C**  
**US Electricity Distribution - Rhode Island**  
**Vegetation Management O&M Spending**  
**FY 2018 through September 30, 2017**  
**(\$000)**

	<b>FY 2018 Annual ISR Budget</b>	<b>FYTD Actual Spend</b>	<b>FY 2018 Year- end Forecast</b>	<b>Forecasted Variance</b>	<b>FYTD % Spend</b>
Cycle Pruning (Base)	\$5,500	\$2,315	\$5,500	\$0	42%
Hazard Tree	\$1,250	\$617	\$1,250	\$0	49%
Sub-T (on & off road)	\$650	\$124	\$650	\$0	19%
Police/Flagman Details	\$775	\$363	\$775	\$0	47%
Core Crew (all other activities)	\$1,225	\$556	\$1,225	\$0	45%
<b>Total VM O&amp;M Spending</b>	<b>\$9,400</b>	<b>\$3,975</b>	<b>\$9,400</b>	<b>\$0</b>	<b>42%</b>
	<b>FY 2018 Goal</b>	<b>FYTD Goal</b>	<b>FYTD Complete</b>	<b>FYTD % Complete</b>	<b>FY 2017 % Complete</b>
<b>Distribution Mileage Trimming</b>	1,270	635	590	93%	46%

**Attachment D**  
**US Electricity Distribution - Rhode Island**  
**Inspection and Maintenance Program O&M Spending**  
**FY 2018 through September 30, 2017**  
**(\$000)**

	<b>FY 2018 Annual ISR Budget</b>	<b>FYTD Actual Spend</b>	<b>FY 2018 Year- end Forecast</b>	<b>FYTD % Spent</b>
Opex Related to Capex	\$362	\$72	\$362	20%
Repair & Inspections Related Costs	\$623	\$184	\$623	30%
System Planning & Protection Coordination Study	\$25	\$10	\$25	40%
VVO/CRV Program	\$60	\$8	\$60	13%
<b>Total I&amp;M O&amp;M Spending</b>	<b>\$1,070</b>	<b>\$274</b>	<b>\$1,070</b>	<b>26%</b>
Removal Costs	\$161	\$68	\$156	42%
<b>Total Program Costs</b>	<b>\$1,231</b>	<b>\$342</b>	<b>\$1,226</b>	<b>28%</b>

	<b>FY 2018 Goal</b>	<b>FYTD Goal</b>	<b>FYTD Complete</b>	<b>FYTD % Complete</b>	<b>FY 2018 % Complete</b>
RI Distribution Overhead Structures Inspected	53,128	26,563	23,523	89%	44%

**Attachment E**  
**US Electricity Distribution - Rhode Island**  
**Project Variance Report**  
**FY 2018 through September 30, 2017**  
**(\$000)**

Project Description	Project Funding	FYTD			FY 2018 Total			Variance Cause
		Budget	Actual	Variance	Budget	Forecast	Variance	
Aquidneck Island Projects (Gate 2, Newport, Jepson)	CD00649, C024159, C015158, C028628, C054054, CD00656	\$2,228	\$958	(\$1,270)	\$4,302	\$4,387	\$85	Delay with permitting issues. FY 2018 spend to increase later in year.
Citizens Bank Infrastructure	C073957	\$0	\$792	\$792	\$0	\$1,109	\$1,109	Emergent mandatory customer project.
Volt/Var Program	C077201, C075571, C053111, C076367, C046352, C075573, C076365, C077200, C053488, C052708	\$1,400	\$554	(\$846)	\$1,400	\$1,842	\$442	Construction scheduled for second half of fiscal year. Communication solution higher than initial budget.
New Highland Drive Distribution	CD00978	\$1,329	\$921	(\$408)	\$1,329	\$1,427	\$98	Construction scheduled for later in fiscal year than budgeted.
West Cranston Transformer Replacement	C055844	\$511	\$192	(\$319)	\$1,008	\$520	(\$488)	Project schedule partially pushed to FY 2019.
Quonset Sub D-Line and D-Sub	C053646, C053647	\$1,480	\$2,131	\$651	\$2,789	\$3,919	\$1,130	Increased cost
Chase Hill D-Line and D-Sub	C024175, C024176	\$1,547	\$1,788	\$241	\$3,856	\$2,883	(\$973)	Advanced project in FY 2017
LNG D-Line and D-Sub	C051203, C051204	\$2,057	(\$680)	(\$2,737)	\$2,283	(\$596)	(\$2,879)	Reimbursement received in FY 2018
		<b>\$10,552</b>	<b>\$6,656</b>	<b>(\$3,896)</b>	<b>\$16,967</b>	<b>\$15,491</b>	<b>(\$1,476)</b>	

\* ( ) denotes an underspend for the period

**Attachment F**  
**US Electricity Distribution - Rhode Island**  
**Damage/Failure Detail by Work Type**  
**FY 2018 through September 30, 2017**

		Project Type					Grand Total
		D-Line Blanket	D-Line Property Damage	D-Line Storm	D-Sub Blanket	D-Sub Specific	
Operation Description Rollup	AFUDC	\$514,264	\$23	\$2,994	\$51,408	\$979	\$569,667
	Default Accounting	\$350,188	\$66,041	\$40,028	(\$73,374)	\$44,143	\$427,026
	Engineering/Design/Supervision	\$697,998	\$15,286	\$46,353	\$12,471	\$59,841	\$831,949
	Outdoor Lighting - Cable/Wire	\$3,195	(\$2)				\$3,192
	Outdoor Lighting - Framing	\$45,597	\$25,900	\$409			\$71,905
	Outdoor Lighting - Poles	\$5,384	\$3,052				\$8,436
	Overhead Bonding/Grounding	\$37,117	\$2,064	\$58			\$39,239
	Overhead Services	\$154,622	(\$1,941)	\$40,485			\$193,166
	Overhead Switches/Reclosers/Fuses	\$293,651	\$16,701	\$4,605			\$314,957
	Overhead Transformers/Capacitors/Regulators	\$391,340	(\$858)	\$69,865			\$460,346
	Overhead Wire & Conductor	\$757,098	\$19,997	\$97,767			\$874,862
	Pole Framing	\$48,399	\$7,705	\$6,200			\$62,305
	Poles/Anchors/Guying	\$834,612	\$21,745	\$144,718			\$1,001,074
	Substation Equipment Installations	\$10,040			\$181,449	\$41,089	\$232,579
	Substations Civil/Structural				(\$206)	\$200,904	\$200,698
	Switching and Restoration	\$23,329					\$23,329
	Traffic Control	\$164,803	\$12,710	\$10,204	\$429		\$188,146
	Underground Cable	\$1,017,684	\$35,193	\$11,011			\$1,063,888
	Underground Cable Splicing	\$54,016	\$1,774				\$55,790
	Underground Civil Infrastructure	\$188,088	\$19,737	\$435			\$208,259
	Underground Direct-Buried Cable	\$74,597	\$0	\$8,863			\$83,461
	Underground Services	\$7,248	\$537	\$1,266			\$9,051
	Underground Switches/Reclosers/Fuses	\$59,542		\$470			\$60,012
Underground Transformers/Capacitors/Regulator	\$153,516	\$10,141	\$6,665			\$170,322	
<b>Grand Total</b>	<b>\$5,886,327</b>	<b>\$255,803</b>	<b>\$492,395</b>	<b>\$172,176</b>	<b>\$346,957</b>	<b>\$7,153,658</b>	

\* ( ) denotes an underspend for the period  
In some cases, the default accounting operation is used to capture work performed.  
The Franklin Square Protection Scheme Replacement costs are in the D-Sub specifics category

**Attachment G**  
**US Electricity Distribution - Rhode Island**  
**South Street Budget and Project Management Report**  
**November 2017 Update**

## South Street Project Status Update Meeting

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## South Street Project: Agenda



- Safety Moment
- Project Milestone Schedule
- October Deliverables
- November Deliverables
- TRC Payment Schedule
- Open PCRs
- Other



## South Street Project: Safety Moment



- **Driving Safety**
  - Winter conditions are coming
  - Prepare now
  - Snow tires, emergency kit in vehicle
  
- **Construction site safety update – TRC**
  - Overall site safety



## South Street Project: Major Milestones

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<b>South Street Upcoming Milestones</b>	
<b>Milestone</b>	<b>Scheduled Date</b>
Begin Transmission Conduit Installation	5/2016
Building Foundation Pile Installation completion	7/2016
First Transmission Outage – MH installation	9/2016
Building Foundation completion	10/2016
Distribution Duct bank – start of installation	1/2017
Complete building enclosure	2/2017
Substation Construction Complete	11/2017
Start of testing and commissioning	11/2017
Distribution Cutover – Phase 1 (Start)	2/2018
Distribution Cutover – Phase 2 (Start)	9/2018
Distribution Cutover – Phase 3 (Start)	2/2019
Cutover Complete	4/2019
Completion of Demolition of existing substation	9/2019



## South Street Project: October Deliverables



### TRC Deliverables

- **Building Activities – Ongoing**
  - Electrical – Ongoing
  - Painting – Complete
  - Plumbing – Complete
  - HVAC - Ongoing
- **Distribution conduit (North side) – Ongoing**
- **Transmission Conduit installation – Complete**
- **Substation foundations**
  - 115kv yard – Complete
  - 23kv yard – Complete
- **Outage sequencing – Ongoing**
- **Fence design – Complete**

### National Grid Deliverables

- **Outage Planning – Ongoing**
- **Transformer (11.5kV to 23kV) delivery - Complete**
- **Respond to RFIs – On going**
- **Responses to DCNs – On going**
- **Review approve DCN's – On going**
- **Reviewed Fence Design – Complete**



## South Street Project: November Deliverables



### TRC Deliverables

- Construction of 115kV yard – Complete (minus soft taps)
- Various activities inside building – Ongoing
  - Electrical – Ongoing
  - HVAC – Ongoing
  - Fire Alarm Tie-in – Ongoing
- Distribution Conduit North Side – Ongoing
- Ground Grid – Ongoing
- Paving of Yard – Ongoing
- Prysmian – Installation and Testing of Cable.
  - T3 and T2 have been installed and terminated
  - T1 has been installed and terminating/splicing is in progress
  - High Voltage Testing to be performed in November



# South Street Project: TRC FY18 Payment Schedule



Distribution	April	May	August	October	December	February	March
C051212	\$3,108,630.06	\$564,032.23	\$1,009,209.39	\$4,036,837.56	\$4,532,537.40	\$2,355,962.97	\$267,142.74
C051213	\$0.00	\$18,658.00	\$102,326.00	\$409,306.00	\$459,566.00	\$238,877.00	\$27,085.00

Transmission	April	May	August	October	November	December	February	March
C055584	\$0.00	\$490,268.00	\$83,732.00	\$334,929.00	\$376,056.00	\$0.00	\$195,469.00	\$22,164.00
C055585	\$0.00	\$1,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
C055586	\$468,485.00	\$420.00	\$2,310.00	\$9,246.00	\$10,382.00	\$10,382.00	\$5,396.00	\$610.97
C055623	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00





## South Street Project: PCRs

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- PCRs
  - Meeting took place to discuss payment of PCR's.





## South Street Project: Other



### ■ Other

#### ■ Testing and commissioning early start.

- September – Section 1 (met with some exceptions)
- October – Section 3 (met)
- December - Section 2 (on target)

