

November 15, 2021

**VIA ELECTRONIC MAIL**

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

**RE: Docket 5098 – FY2022 Electric Infrastructure, Safety, and Reliability Plan  
Quarterly Update – Second Quarter Ending September 30, 2021**

Dear Ms. Massaro:

On behalf of National Grid,<sup>1</sup> I have enclosed an electronic version of the Company's fiscal year (FY) 2022 Electric Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the second quarter ending September 30, 2021.<sup>2</sup> 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 401-784-4263.

Very truly yours,



Andrew S. Marcaccio

Enclosures

cc: Docket 5098 Service List  
Tiffany Parenteau, Esq.  
John Bell, Division  
Greg Booth, Division

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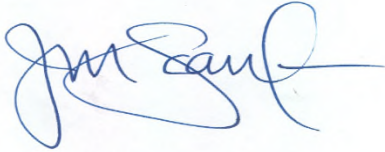
<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

<sup>2</sup> Per a communication from Commission counsel on October 4, 2021, the Company is submitting an electronic version of this filing followed by six (6) hard copies filed with the Clerk within 24 hours of the electronic filing.

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

November 15, 2021

Date

**Docket No. 5098 - National Grid's Electric ISR Plan FY 2022**  
**Service List as of 4/1/2021**

<b>Name/Address</b>	<b>E-mail Distribution</b>	<b>Phone</b>
Andrew.Marcaccio, Esq. Jennifer Hutchinson, Esq. <b>National Grid</b> 280 Melrose St. Providence, RI 02907	<a href="mailto:Andrew.Marcaccio@nationalgrid.com">Andrew.Marcaccio@nationalgrid.com</a> ;	401-784-7288
	<a href="mailto:jennifer.hutchinson@nationalgrid.com">jennifer.hutchinson@nationalgrid.com</a> ;	
	<a href="mailto:celia.obrien@nationalgrid.com">celia.obrien@nationalgrid.com</a> ;	
	<a href="mailto:Joanne.scanlon@nationalgrid.com">Joanne.scanlon@nationalgrid.com</a> ;	
<b>National Grid</b> Melissa Little Patricia Easterly Kathy Castro Susan Toronto Ryan Constable William Richer	<a href="mailto:Melissa.Little@nationalgrid.com">Melissa.Little@nationalgrid.com</a> ;	
	<a href="mailto:Patricia.easterly@nationalgrid.com">Patricia.easterly@nationalgrid.com</a> ;	
	<a href="mailto:Kathy.Castro2@nationalgrid.com">Kathy.Castro2@nationalgrid.com</a> ;	
	<a href="mailto:Susan.Toronto@nationalgrid.com">Susan.Toronto@nationalgrid.com</a> ;	
	<a href="mailto:Ryan.Constable@nationalgrid.com">Ryan.Constable@nationalgrid.com</a> ;	
	<a href="mailto:William.Richer@nationalgrid.com">William.Richer@nationalgrid.com</a> ;	
<b>Division of Public Utilities (Division)</b> Christy Hetherington, Esq. Dept. of Attorney General 150 South Main St. Providence, RI 02903	<a href="mailto:christy.hetherington@dpuc.ri.gov">christy.hetherington@dpuc.ri.gov</a> ;	
	<a href="mailto:Dmacrae@riag.ri.gov">Dmacrae@riag.ri.gov</a> ;	
	<a href="mailto:MFolcarelli@riag.ri.gov">MFolcarelli@riag.ri.gov</a> ;	
	<a href="mailto:John.bell@dpuc.ri.gov">John.bell@dpuc.ri.gov</a> ;	
	<a href="mailto:Joseph.shilling@dpuc.ri.gov">Joseph.shilling@dpuc.ri.gov</a> ;	
	<a href="mailto:Margaret.l.hogan@dpuc.ri.gov">Margaret.l.hogan@dpuc.ri.gov</a> ;	
	<a href="mailto:Linda.george@dpuc.ri.gov">Linda.george@dpuc.ri.gov</a> ;	
	<a href="mailto:Robert.Bailey@dpuc.ri.gov">Robert.Bailey@dpuc.ri.gov</a> ;	

David Effron Berkshire Consulting 12 Pond Path North Hampton, NH 03862-2243	<a href="mailto:Djeffron@aol.com">Djeffron@aol.com</a> ;	603-964-6526
Gregory L. Booth, PLLC 14460 Falls of Neuse Rd. Suite 149-110 Raleigh, N. C. 27614	<a href="mailto:gboothpe@gmail.com">gboothpe@gmail.com</a> ;	919-441-6440
Linda Kushner L. Kushner Consulting, LLC 514 Daniels St. #254 Raleigh, NC 27605	<a href="mailto:Lkushner33@gmail.com">Lkushner33@gmail.com</a> ;	919-810-1616
<b>Office of Energy Resources (OER)</b> Albert Vitali, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 <sup>th</sup> Floor Providence, RI 02908	<a href="mailto:Albert.Vitali@doa.ri.gov">Albert.Vitali@doa.ri.gov</a> ;	401-222-3417
	<a href="mailto:Nancy.Russolino@doa.ri.gov">Nancy.Russolino@doa.ri.gov</a> ;	
	<a href="mailto:Christopher.Kearns@energy.ri.gov">Christopher.Kearns@energy.ri.gov</a> ;	
	<a href="mailto:Nicholas.Ucci@energy.ri.gov">Nicholas.Ucci@energy.ri.gov</a> ; <a href="mailto:Carrie.Gill@energy.ri.gov">Carrie.Gill@energy.ri.gov</a> ;	
<b>File an original &amp; five (5) copies w/:</b> Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	<a href="mailto:Luly.massaro@puc.ri.gov">Luly.massaro@puc.ri.gov</a> ;	401-780-2107
	<a href="mailto:John.harrington@puc.ri.gov">John.harrington@puc.ri.gov</a> ;	
	<a href="mailto:Cynthia.WilsonFrias@puc.ri.gov">Cynthia.WilsonFrias@puc.ri.gov</a> ;	
	<a href="mailto:Todd.bianco@puc.ri.gov">Todd.bianco@puc.ri.gov</a> ;	
	<a href="mailto:Emma.rodvien@puc.ri.gov">Emma.rodvien@puc.ri.gov</a> ;	
	<a href="mailto:Alan.nault@puc.ri.gov">Alan.nault@puc.ri.gov</a> ;	
PPL Electric Utilities Ronald Reybitz Stephen Breininger	<a href="mailto:rjreybitz@pplweb.com">rjreybitz@pplweb.com</a> ;	
	<a href="mailto:skbreininger@pplweb.com">skbreininger@pplweb.com</a> ;	
Matthew Sullivan, Green Development	<a href="mailto:ms@green-ri.com">ms@green-ri.com</a> ;	

**Electric Infrastructure, Safety, and Reliability Plan  
FY 2022 Quarterly Update  
For the Six Months Ending September 30, 2021**

**EXECUTIVE SUMMARY**

As shown in Attachment A during the first six months of the fiscal year ending March 31, 2022, the Company<sup>1</sup> spent \$51.5 million for capital projects against a budget of \$54.0 million. Non-Discretionary spending was \$7.9 million over the budget of \$19.2 million. Discretionary spending, including the separately tracked large projects, was \$10.3 million under the budget of \$34.7 million. Spending in each of these categories is addressed in more detail below. The Company forecasts capital spending of \$105.4 million in FY 2022, \$3.8 million over the budget of \$101.6 million.

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

## I. FY 2022 Capital Spending by Key Driver Category

### 1. Non-Discretionary Spending

#### a. Customer Request/Public Requirement

During the six months ending September 30, 2021, capital spending in the Customer Request/Public Requirement category was \$17.8 million which was over budget by \$4.7 million. The major drivers are:

- Work related to Third-Party Attachments was \$0.2 million over the FYTD budget. For a portion of FY 2022's spending, customer advances were collected and recorded in FY 2021, therefore, not offset against the spending taking place in FY 2022. It is anticipated that this category will remain over budget through the year because of the customer advances collected in FY 2021.
- Activity in the Distributed Generation category was \$4.9 million over budget for the six months ending September 30, 2021 due to the transition to the new process for recording customer Contribution in Aid of Construction (CIAC). Implementation continues in FY 2022 and, once the process has been fully implemented, the Company expects that the net capital activity for any fiscal year will be minimal.
- Public requirements spending is \$0.7 million under budget as of September 30, 2021. Spending in the blanket project is essentially on budget while spending on specific public requirements and RI Department of Transportation (RIDOT) projects is less the estimate in the FY 2022 Plan. The Company forecasts spending will be close to budget at the end of the year.
- Spending for meters is under budget due to vendor manufacturing and delivery delays. The receipt of meters has increased in September and October and is expected to continue. The Company forecasts that meter spending will be \$0.6 million under budget at year end.

At this time, the Company forecasts FY 2022 spending in the Customer Request/Public Requirements category will be \$5.3 million over budget.

**b. Damage/Failure**

During the six months ending September 30, 2021, capital spending in the Damage/Failure category was \$9.3 million, which was \$3.2 million over budget. The primary drivers are:

- Year to date actual storm costs of \$3.6 million, primarily due to August's Storm Henri, which exceeded the budgeted storm costs by \$2.8 million.
- The Company continues to review Damage/Failure work each month as it transitions to categorizing only work related to failed assets in the Damage/Failure category of the Non-Discretionary portfolio and all other work in the Asset Replacement category of the Discretionary portfolio.
- In May 2021 the Westerly #2 Transformer failed and was removed from service. In July, a spare transformer was installed. Through the first six months of FY 2022, capital spending totaled \$0.4 million. Forecasted FY 2022 spending to replace this transformer is \$1.5 million.

The Company forecasts that spending in the Damage/Failure category will be \$4.1 million over the FY 2022 budget of \$12.2 million.

**2. Discretionary Spending**

**a. Asset Condition (without Separately Tracked Large Projects)**

During the six months ending September 30, 2021, capital spending in the Asset Condition category (excluding separately tracked large projects) was \$9.7 million, which was \$0.3 million under the budget of \$10.0 million. The major drivers of this variance are as follows:

- Capital spending on URD projects was under budget by \$0.4 million due to delays in issuing vendor work. Spending on the program is currently forecasted to be close to budget at the end of the year.
- As of September 30, 2021, I&M spending is \$0.6 million under budget and the forecast has been reduced to \$1.6 million as the focus of the streamlined program is to address priority and backlog work.
- Capital spending on the Franklin Square 11kV Substation project continued from FY 2021 and totaled \$1.2 million during the first six months of FY 2022. This project is associated with the Transmission project taking place at the Franklin Square Substation. The distribution scope includes a new outdoor 11 kV riser

structure, removal of existing 11kV cable during coordinated outages and installation of new 11kV cable. Minimal budget for this project was included in the FY 2022 Plan because requirements were identified after the budget was set. The Company forecasts capital spending of \$1.5 million for the fiscal year. The project is near completion and is expected to be placed into service in the third quarter of FY 2022.

- Capital spending on the Franklin Square Breaker Replacement project was \$0.4 million under budget as of September 30, 2021. The project is expected to be slightly under budget at year end.

At this time, the Company forecasts that capital spending in this category will be \$0.3 million over budget at the end of the year.

***b. Non-Infrastructure***

During the six months ending September 30, 2021, capital spending in the Non-Infrastructure category was \$1.0 million, which was \$0.1 under budget. At this time, the Company forecasts that spending in this category will be on budget at the end of the year.

***c. System Capacity and Performance***

During the six months ending September 30, 2021, capital spending for the System Capacity and Performance category was \$7.6 million, which was \$2.6 million under the budget of \$10.2 million. The major drivers of this variance are as follows:

- Capital spending on the Aquidneck Island projects was \$1.5 million under the budget of \$3.6 million. FY 2022 capital spending is forecasted to be \$2.0 million under budget. Drivers include FY 2022 work shifted into FY 2021 and actuals coming in less than estimates.
- Capital spending on the New Lafayette Substation project was \$0.5 million over the budget of \$1.0 million. The Company forecasts that spending on this project will be \$0.1 million under budget at year end.
- Capital spending on VVO projects is \$1.0 million under the budget of \$1.6 million. It is anticipated that spending will be slightly under budget at year end.
- Capital Spending on 3V0 projects is \$0.2 million. The forecast for the 3V0 program has been reduced to \$0.4 million to remove the installation of 3V0 at substations impacted by future retirements.

- Capital spending on EMS projects is essentially on budget at September 30, 2021. FY 2022 forecasted capital spending has been reduced to \$0.9 million to align with the results of area studies.
- Capital spending on projects related to COVID load shifts was \$0.9 million under the YTD budget of \$1.0 million. It is anticipated that capital spending in this category will be \$0.3 million under the budget of \$2.0 million at year end.

At this time, the Company forecasts that spending in this category will be \$3.8 million under budget at the end of the year.

***d. Separately Tracked Large Projects***

During the six months ending September 30, 2021, capital spending on the Southeast Substation, Dyer Street Substation and Providence Area projects in the Asset Condition category was \$7.4 million under the budget of \$13.5 million. Each project is discussed below and in [Attachment G](#).

- Capital spending on the Southeast Substation projects was \$0.6 million over budget and is forecasted to be \$0.8 million over budget at year end. The substation portion of this project is substantially complete and went into service in March 2021. The distribution line portion of this project is expected to be completed in FY 2022.
- Capital spending on Dyer Street substation was \$5.1 million under the budget of \$6.1 million. The Company is forecasting that capital spending on this project will be \$2.0 million under budget for the fiscal year due to some work expected to be delayed to FY 2023.
- Capital spending on the Providence Area Study projects (Admiral Street projects) was \$2.8 million under the budget of \$5.6 million. The Company is forecasting that capital spending on these projects will be \$0.9 million under budget at year end.

***e. Large Project Variances***

The Company provides explanations for large projects<sup>2</sup> with variances that exceed +/- 10% of the annual fiscal year budget in quarterly reports. These projects represented \$27.9 million of the FY 2022 budget of \$101.6 million. This project information is provided in [Attachment E](#).

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<sup>2</sup> Large projects are defined as exceeding \$1.0 million in total project cost.



***f. New Distribution System Technology Update***

The Quarterly Updates include an explanation of all new technologies the Company is exploring to assist in distribution system planning, particularly as they relate to the integration of distributed energy resources or to providing additional visibility on the distribution grid. Most recently, the Company has increased its use of Python Scripting to improve automation in CYME as well as other computer programs. For example, the COVID-19 scenario analysis performed during FY 2021 utilized Python scripts to run the initial CYME analysis.

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

During the six months ending September 30, 2021, \$32.1 million of plant additions were placed in service which is 33% of the FY 2022 target and 35% of the FY 2022 forecast of \$92.7 million. Details by spending rationale are included in Attachment B.

**4. Vegetation Management (VM)**

During the six months ending September 30, 2021, the Company completed 431 miles or 34% of its annual distribution mileage cycle pruning goal of 1,432 miles. VM O&M spending was \$3.7 million. The Company expects to complete 100% of the FY 2022 work plan within its budget of \$10.8 million.

Attachment C provides the spending for the first quarter of FY 2022 and the Hazard Tree and Gypsy Moth Summary. During the first six months of FY 2022, the Company removed 460 hazard trees on seven circuits and identified no trees as having been impacted by gypsy moths.

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

During the six months ending September 30, 2021, the Company completed 50% of its annual structure inspection goal of 52,832 with an associated Opex spend of \$0.3 million. This spending includes mobile elevated voltage testing and repairs which the PUC approved in Docket No. 4237.

The Company began performing inspections on its overhead distribution system in FY 2011 and began performing the repairs based on those inspections in FY 2012. Deficiencies found are categorized as Level I, II, or III. Level I deficiencies are repaired immediately or within 30 days of the inspection. As of September 30, 2021, no Level I deficiencies were found, and the Company has completed repairs for 34 percent of the total deficiencies found. This information is summarized in the tables 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 9/30/21</b>	<b>Not Repaired as of 9/30/21</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	15,544	303
	III	626	624	2
<b>FY 2013</b>	I	15	15	0
	II	25,883	16,496	9,387
	III	8,780	4,637	4,143
<b>FY 2014</b>	I	11	11	0
	II	22,096	4,375	17,721
	III	8,414	3,027	5,387
<b>FY 2015</b>	I	5	5	0
	II	20,805	2	20,803
	III	4,351	0	4,351
<b>FY 2016</b>	I	2	2	0
	II	11,018	1,236	9,782
	III	6,441	198	6,243
<b>FY 2017</b>	I	2	2	0
	II	8,567	2	8,565
	III	7,272	1	7,271
<b>FY 2018</b>	I	11	11	0
	II	8,639	11	8,628
	III	7,196	14	7,182
<b>FY 2019</b>	I	28	28	0
	II	3,699	0	3,699
	III	2,464	0	2,464
<b>FY 2020</b>	I	19	19	0
	II	186	28	158
	III	26	0	26
<b>FY 2021</b>	I	0	0	0
	II	53	0	53
	III	37	0	37
<b>FY 2022</b>	I	0	0	0
	II	38	1	37
	III	29	0	29
<b>Total Since Program Inception</b>	<b>I, II, III</b>	<b>175,769</b>	<b>59,480</b>	<b>116,289</b>

<b>Manual Elevated Voltage Testing</b>				
<b>Manual Elevated Voltage Testing</b>	<b>Total System Units Requiring Testing</b>	<b>FY 2022 Units Completed thru 9/30/21</b>	<b>Units with Voltage Found (&gt;1.0v)</b>	<b>Percent of Units Tested with Voltage (&gt;1.0v)</b>
Distribution Facilities	253,069	26,980	0	0%
Underground Facilities	12,438	2,600	0	0%
Street Lights	4,929	1,900	1	0%

During the six months ending September 30, 2021, the Company’s manual elevated voltage testing has identified one instance of elevated voltage which was communicated and addressed by the respective town.

FY 2022 I&M program costs and other O&M spending are shown in Attachment D.

**Attachment A**

**US Electricity Distribution - Rhode Island  
Capital Spending by Spending Rationale  
For the Six Months Ending September 30, 2021  
(\$000)**

	FYTD September 30, 2021			FY 2022		
	Budget	Actuals	Over Spend / (Under Spend)	Budget	Forecast	Over Spend / (Under Spend)
<b>Customer Request/Public Requirement</b>	\$13,158	\$17,831	\$4,673	\$27,237	\$32,524	\$5,287
<b>Damage Failure</b>	\$6,076	\$9,253	\$3,177	\$12,198	\$16,265	\$4,067
<i>Total Non-Discretionary Spending</i>	<i>\$19,234</i>	<i>\$27,084</i>	<i>\$7,850</i>	<i>\$39,435</i>	<i>\$48,789</i>	<i>\$9,354</i>
<b>Asset Condition</b>	\$9,990	\$9,744	(\$246)	\$20,330	\$20,582	\$253
<b>Non-Infrastructure</b>	\$1,055	\$962	(\$93)	\$1,310	\$1,359	\$50
<b>System Capacity &amp; Performance</b>	\$10,157	\$7,599	(\$2,558)	\$20,373	\$16,575	(\$3,798)
	\$21,201	\$18,304	(\$2,897)	\$42,013	\$38,516	(\$3,496)
<b>Large Projects Separately Tracked</b>	\$13,532	\$6,110	(\$7,421)	\$20,153	\$18,106	(\$2,046)
<i>Total Discretionary Spending</i>	<i>\$34,733</i>	<i>\$24,414</i>	<i>(\$10,319)</i>	<i>\$62,165</i>	<i>\$56,623</i>	<i>(\$5,543)</i>
<b>Total Capital Spending</b>	<b>\$53,966</b>	<b>\$51,498</b>	<b>(\$2,469)</b>	<b>\$101,600</b>	<b>\$105,412</b>	<b>\$3,811</b>

## Attachment B

### US Electricity Distribution - Rhode Island Plant Additions by Spending Rationale For the Six Months Ending September 30, 2021 (\$000)

	Target	Actuals	Forecast	% of Target Placed In Service	% of Forecast Placed In Service
<b>Customer Request/Public Requirement</b>	\$25,830	\$9,906	\$25,849	38%	38%
<b>Damage Failure</b>	14,838	6,431	14,323	43%	45%
<i>Subtotal Non-Discretionary</i>	40,668	16,338	40,172	40%	40%
<b>Asset Condition (w/Sep Tracked Large Projects)</b>	39,097	10,106	37,606	26%	27%
<b>Non- Infrastructure</b>	1,102	313	993	28%	32%
<b>System Capacity &amp; Performance</b>	17,620	5,368	13,970	30%	38%
<i>Subtotal Discretionary</i>	57,819	15,788	52,568	27%	30%
<b>Total Plant Additions</b>	<b>\$98,487</b>	<b>\$32,126</b>	<b>\$92,741</b>	33%	35%

**Attachment C**

**US Electricity Distribution - Rhode Island  
Vegetation Management O&M Spending  
For the Six Months Ending September 30, 2021  
(\$000)**

	<b>Budget</b>	<b>Actual</b>	<b>FY Forecast</b>	<b>% Spend</b>
Cycle Pruning (Base)	\$6,600	\$1,267	\$6,600	19%
Hazard Tree	\$1,500	\$986	\$1,500	66%
Sub-T (on & off road)	\$500	\$391	\$500	78%
Police/Flagman Details	\$775	\$257	\$775	33%
Pockets of Poor Performance	\$200	\$13	\$200	7%
Core Crew (all other activities)	\$1,225	\$766	\$1,225	63%
<b>Total VM O&amp;M Spending</b>	<b>\$10,800</b>	<b>\$3,680</b>	<b>\$10,800</b>	<b>34%</b>

**Hazard Tree and Gypsy Moth Update**

<b>District</b>	<b>Circuit</b>	<b>Substation</b>	<b>Hazard Tree Removals</b>
Coastal	49_56_16F1	Coventry	27
Coastal	49_56_85T1	Wood River	145
Capital	49_56_155F2	Chase Hill Substation	56
Coastal	49_56_155F4	Chase Hill Substation	54
Coastal	49_56_155F6	Chase Hill Substation	18
Capital	49_53_34F2	Chopmist	74
Capital	49_53_34F3	Chopmist	86
<b>Totals</b>			<b>460</b>

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**Attachment D**

**US Electricity Distribution - Rhode Island  
Inspection and Maintenance Program and Other O&M Spending  
For the Six Months Ending September 30, 2021  
(\$000)**

	<b>Budget</b>	<b>Actual</b>	<b>FY Forecast</b>	<b>% Spend</b>
Opex Related to Capex	\$421	\$47	\$145	11%
Inspections & Repair Related Costs	\$475	\$253	\$475	53%
System Planning & Protection Coordination Study	\$25	\$0	\$25	0%
VVO/CRV Program	\$262	\$58	\$219	22%
<b>Total I&amp;M Program and Other O&amp;M Spending</b>	<b>\$1,183</b>	<b>\$358</b>	<b>\$864</b>	

## Attachment E

### US Electricity Distribution - Rhode Island Project Variance Report For the Six Months Ending September 30, 2021 (\$000)

Project Description	FYTD 2022			FY 2022			Variance Cause
	FYTD Budget	FYTD Actual	Over / (Under)	FY Budget	FY Forecast	Over / (Under)	
Aquidneck Island Projects	\$3,549	\$2,088	(\$1,461)	\$6,434	\$4,474	(\$1,960)	Jepson Sub - CAPEX pulled into FY21. Newport D Line Conv - Actuals coming in less than estimates.
Dyer Street Indoor Sub	\$6,118	\$970	(\$5,148)	\$9,717	\$7,762	(\$1,955)	See Attachment G for additional details.
Providence Study - Phase 1A	\$3,419	\$2,367	(\$1,052)	\$4,966	\$5,015	\$49	See Attachment G for additional details.
Providence Study - Phase 1B	\$1,894	\$307	(\$1,588)	\$2,895	\$2,027	(\$868)	See Attachment G for additional details.
Franklin Sq Breaker Replacement	\$1,107	\$685	(\$422)	\$1,804	\$1,683	(\$121)	Installed the 4 FY21 breakers. 5 FY22 breakers are expected to be installed by the end of the fiscal year.
Westerly Transformer #2 Failure	\$0	\$434	\$434	\$0	\$1,445	\$1,445	Failed transformer, a spare transformer was installed and placed in service. Awaiting bids for the purchase of new spare transformer.
Southeast Substation	\$1,845	\$2,420	\$575	\$2,082	\$2,903	\$821	See Attachment G for additional details.
	<b>\$17,931</b>	<b>\$9,269</b>	<b>(\$8,662)</b>	<b>\$27,899</b>	<b>\$25,309</b>	<b>(\$2,590)</b>	



## Attachment F

### US Electricity Distribution - Rhode Island Damage/Failure Detail by Work Type For the Six Months Ending September 30, 2021 (\$000)

	Project Type					Grand Total
	D-Line Blanket	D-Line Property Damage	D-Line Storm	D-Sub Blanket	D-Sub & D-Line Specific	
AFUDC	\$27	\$0	\$7	\$21	\$10	\$65
Default Accounting	\$30	(\$79)	(\$22)	\$82	\$68	\$79
Engineering/Design/Supervision	\$591	\$27	\$11	\$312	\$37	\$978
Outdoor Lighting - Cable/Wire	\$1	\$0	\$0	(\$0)	\$0	\$1
Outdoor Lighting - Framing	\$41	\$1	\$0	\$1	\$0	\$43
Outdoor Lighting - Poles/Foundation	\$7	(\$0)	\$0	\$0	\$0	\$7
Overhead Bonding/Grounding	\$5	\$2	\$0	\$2	\$0	\$9
Overhead Services	\$155	(\$8)	\$0	\$86	\$0	\$233
Overhead Switches/Reclosers/Fuses	\$303	\$33	\$0	\$82	\$0	\$418
Overhead Transformers/Capacitors/Regulators/Meters	\$416	(\$7)	\$0	\$189	\$0	\$599
Overhead Wire & Conductor	\$274	(\$651)	\$0	\$114	\$0	(\$264)
Pole Framing	\$117	(\$19)	\$0	\$22	\$0	\$120
Poles/Anchors/Guying	\$1,180	\$101	\$0	\$2,622	\$0	\$3,903
Substation Equipment Installations	\$0	\$0	\$445	\$0	\$480	\$925
Substations Civil/Structural	\$0	\$0	\$0	\$0	\$75	\$75
Switching and Restoration	\$93	\$40	\$23	\$22	\$2	\$180
Traffic Control	\$191	\$4	\$0	\$52	\$0	\$247
Underground Cable	\$1,150	\$19	\$0	\$19	\$0	\$1,188
Underground Cable Splicing	\$4	(\$1)	\$0	\$3	\$0	\$6
Underground Civil Infrastructure	\$249	\$2	\$0	\$7	\$0	\$258
Underground Direct-Buried Cable	\$29	(\$3)	\$0	\$0	\$0	\$25
Underground Services	\$7	\$1	\$0	\$1	\$0	\$9
Underground Switches/Reclosers/Fuses	\$28	(\$3)	\$0	\$0	\$0	\$25
Underground Transformers/Capacitors/Regulators/Meters	\$174	(\$2)	\$0	\$7	\$0	\$179
<b>Total before Reclassifications</b>	<b>\$5,072</b>	<b>(\$543)</b>	<b>\$465</b>	<b>\$3,642</b>	<b>\$672</b>	<b>\$9,309</b>
Reclass project miscategorized as Asset Condition - C087912					\$324	\$324
Reclassification Adjustment between D/F and A/R	(\$380)					(\$380)
<b>Total after Reclassifications</b>	<b>\$4,692</b>	<b>(\$543)</b>	<b>\$465</b>	<b>\$3,642</b>	<b>\$996</b>	<b>\$9,253</b>

## Attachment G

### US Electricity Distribution - Rhode Island Separately Tracked Large Projects For the Six Months Ending September 30, 2021

#### Southeast Substation

Predates existing Area Study Process  
Current Status – Step 4.4 – Design and Execute

	<u>FY22</u> <u>Forecast</u>		<u>FY22 ISR</u> <u>Budget</u>
	<u>Total</u> <u>Project</u>		<u>Total</u> <u>Project</u>
	<u>FY22</u> <u>Forecast</u>	<u>Cost</u> <u>Forecast</u>	<u>FY22</u> <u>Budget</u>
	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
<b>Southeast Substation Project</b>	<b>\$2,903</b>	<b>\$23,065</b>	<b>\$2,082</b>
			<b>\$21,886</b>

For FY 2022, the Company forecasts capital spending of \$2.9 million against the \$2.1 million budget included in the FY 2022 ISR Plan. The substation portion of this project is substantially complete and went into service in March 2021. The remaining substation work planned for FY 2022 is site civil work. The distribution line portion of this project is expected to be completed in FY 2022. The FY 2022 forecast is \$0.8 million over budget due to the Dunnell Park and Pawtucket reconfiguration and the retirement of the 71 transformer and switchgear at Pawtucket. Additional feeder reconfiguration and three reclosers are required to maintain adequate, reliable service to the Pawtucket network. Pawtucket #1 construction contract award is scheduled for November 2021, with construction completion scheduled for Q1 of FY 2023.

In total, the Company currently expects capital spending to be \$23.1 million for this project as compared with the estimate when sanctioned of \$21.1 million. Additional spending was necessary due to field conditions, requiring environmental management of an additional volume of soil, and additional resources, such as crane and other equipment rentals, to manage construction site congestion in addition to the FY 2022 forecasted spending related to reliability issues noted above.

**Dyer Street Substation**

Predates existing Area Study Process  
Current Status – Step 4.4 – Design and Execute

	<b>FY22 Forecast</b>		<b>FY22 ISR Budget</b>	
	<b><u>Total</u> <u>Project</u></b>		<b><u>Total</u> <u>Project</u></b>	
	<b><u>FY22</u> <u>Forecast</u></b>	<b><u>Cost</u> <u>Forecast</u></b>	<b><u>FY22</u> <u>Budget</u></b>	<b><u>Cost</u> <u>Forecast</u></b>
<b>Dyer Street Substation Project</b>	<b>\$7,761</b>	<b>\$16,510</b>	<b>\$9,717</b>	<b>\$14,628</b>

For FY 2022, the Company forecasts capital spending of \$7.8 million against the \$9.7 million budget included in the FY 2022 ISR Plan. Necessary environmental permits have been obtained for the build at the South Street location for the Dyer Street project. Risk of delayed delivery of the metal clad switchgear and permitting issues exist. Switchgear delivery is currently anticipated in Q4 FY 2022. Construction is being phased to minimize impacts but some work has shifted into FY 2023 thereby causing the reduction to the FY 2022 forecast.

In total, the Company currently expects capital spending to be \$16.5 million for this project as compared to the \$14.6 million budget presented in the FY 2022 ISR Plan and the estimate of \$16.7 million when sanctioned. The re-scoped Dyer Street Substation project at the South Street Substation location consists of building an external substation in the vicinity of the South Street Substation. The work will involve the installation of 2 new 11 kV to 4.16 kV transformers and the corresponding risers and switches, the installation of a Metal Clad Switch Gear, and the needed distribution feeder getaways. Benefits of building within the South Street substation vicinity are that the Company does not have to install numerous components including the ground grid, the substation fence, lighting, and trenching. The project is expected to go into service in May 2022.

**Providence Study – Admiral Street Substation - Phase 1A**  
Providence Area Study Implementation Plan 2016 – 2030 (May 2017)  
Current Status – Step 4.4B – Construction

	<b>FY22</b>		<b>FY22 ISR</b>	
	<b>Forecast</b>		<b>Budget</b>	
	<u>Total</u>		<u>Total</u>	
	<u>Project</u>		<u>Project</u>	
	<u>FY22</u>	<u>Cost</u>	<u>FY22</u>	<u>Cost</u>
	<u>Forecast</u>	<u>Forecast</u>	<u>Budget</u>	<u>Forecast</u>
<b>Providence Study Projects - Phase 1A</b>	<b>\$5,015</b>	<b>\$8,973</b>	<b>\$4,966</b>	<b>\$10,492</b>

For FY 2022, capital spending is forecasted at \$5.0 million which is essentially on budget for the year. In total, the Company currently expects capital spending of \$9.0 million for this project as compared to the \$10.4 million budget presented in the FY 2022 ISR Plan and the estimate of \$10.0 million when sanctioned. The work is currently on schedule to be completed in Q1 of FY 2023.

**Providence Study – Admiral Street Substation - Phase 1B**  
Providence Area Study Implementation Plan 2016 – 2030 (May 2017)  
Current Status – Step 4.4A – Final Engineering

	<b>FY22</b>		<b>FY22 ISR</b>	
	<b>Forecast</b>		<b>Budget</b>	
	<u>Total</u>		<u>Total</u>	
	<u>Project</u>		<u>Project</u>	
	<u>FY22</u>	<u>Cost</u>	<u>FY22</u>	<u>Cost</u>
	<u>Forecast</u>	<u>Forecast</u>	<u>Budget</u>	<u>Forecast</u>
<b>Providence Study Projects - Phase 1B</b>	<b>\$2,027</b>	<b>\$46,171</b>	<b>\$2,895</b>	<b>\$24,443</b>

For FY 2022, the Company forecasts capital spending of \$2.0 million against the \$2.9 million budget included in the FY 2022 ISR Plan. Engineering and design, including ground penetrating radar and test pit work along the new duct bank route, will be conducted this year. No construction is scheduled in FY 2022.

- In total, the Company currently expects capital spending of \$46.2 million for this project as compared to the \$24.4 million budget presented in the FY 2022 ISR Plan. Estimates have changed as the projects have progressed through the project development phase. The earlier estimate of this project was based on higher level engineering information. Changes between the original estimate and the current estimate were highlighted in the FY 2022 ISR First Quarter report. During the second quarter additional spending of \$0.5 million was added to the forecast related to a required upgrade of the existing small main line conductor to standard mainline conductor on the Olneyville distribution line.

**Providence Study – Admiral Street Substation - Phases 2-4**

Providence Area Study Implementation Plan 2016 – 2030 (May 2017)

Current Status – Step 4.3 - Develop & Sanction

	<b>FY22 Forecast</b>		<b>FY22 ISR Budget</b>	
	<u>Total</u>		<u>Total</u>	
	<u>Project</u>		<u>Project</u>	
	<u>FY22</u>	<u>Cost</u>	<u>FY22</u>	<u>Cost</u>
	<u>Forecast</u>	<u>Forecast</u>	<u>Budget</u>	<u>Forecast</u>
<b>Providence Study Projects - Phases 2 and 4</b>	<b>\$400</b>	<b>\$37,221</b>	<b>\$495</b>	<b>\$33,945</b>

For FY 2022, the Company forecasts that capital spending on Phases 2-4 will be \$0.4 million. Forecasted spending for FY 2023 - FY 2027 has increased \$3.4 million due to incorporating the estimating processes usually done later in the project lifecycle to the Knightsville 4kV Substation project . No construction is scheduled in FY 2022.

## Attachment H

### US Electricity Distribution - Rhode Island Meter Purchases For the Six Months Ending September 30, 2021

Quantity of Meters Purchased		
Type	Description	Quantity
METER	KV2C - 45S	0
METER	KV2C - 16S CL320	60
METER	KV2C - 16S CL200	16
METER	KV2C - 2S CL320	8
METER	KV2C - 2S CL200	20
SWITCHES	"B" SWITCHES	4
SWITCHES	"K" SWITCHES	3
METER	CENTRON - 2S ERT CL200	4,200
METER	CENTRON - 12S ERT CL200	960
METER	CENTRON - C1SR, CL320 240V	240
METER	CENTRON 3-ERT 16S CL320	120
METER	CENTRON 3-ERT 16S CL200	360
METER	2S AMR 240V CL200	1,200
INSTRUMENT TRANSFORMER	CUR OUTDOOR 120/1 14.4KV	10
INSTRUMENT TRANSFORMER	CUR OUTDOOR 300/5 15KV	4
INSTRUMENT TRANSFORMER	CUR OUTDOOR 60/1 7.2KV	18
INSTRUMENT TRANSFORMER	400:5 BASE BUSHINGS	120
INSTRUMENT TRANSFORMER	600:5 BASE BUSHINGS	336
INSTRUMENT TRANSFORMER	400:5 CAP	168
INSTRUMENT TRANSFORMER	1500:5 CAP	60
	<b>TOTAL</b>	<b>7,907</b>