

February 22, 2016

BY HAND DELIVERY & ELECTRONIC MAIL

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

**RE: Docket 4513 – In Re: Proceeding to Establish a Pilot Metering Proposal for
Municipal-Owned Streetlights
National Grid’s First Status Report**

Dear Ms. Massaro:

I have enclosed National Grid’s¹ first status report regarding the Street Light Metering Pilot in the above-referenced docket.

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

Very truly yours,



Raquel J. Webster

Enclosure

cc: Docket 4513 Service List
Leo Wold, Esq.
Steve Scialabba, Division

¹ The Narragansett Electric Company d/b/a National Grid.

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

Joanne M. Scanlon

February 22, 2016
Date

**Docket No. 4513 - National Grid – Streetlight Metering Pilot Proposal
Service List updated 11/16/15**

Name/Address	E-mail Distribution	Phone
Raquel Webster, Esq. Thomas Teehan, Esq. National Grid 280 Melrose Street Providence, RI 02907	Thomas.teehan@nationalgrid.com ;	781-907-2121 401-784-7288
	celia.obrien@nationalgrid.com ;	
	Joanne.scanlon@nationalgrid.com ;	
	Jeanne.lloyd@nationalgrid.com ;	
	John.walter@nationalgrid.com ;	
	Raquel.Webster@nationalgrid.com ;	
Karen Lyons, Esq Dept. of Attorney General 150 South Main St. Providence, RI 02903	Klyons@riag.ri.gov ;	401-274-4400 Ext. 2218
	Jmunoz@riag.ri.gov ;	
	dmacrae@riag.ri.gov ;	
	john.spirito@dpuc.ri.gov ;	
	James.lanni@dpuc.ri.gov ;	
	joseph.shilling@dpuc.ri.gov ;	
	Al.contente@dpuc.ri.gov ;	
	Steve.scialabba@dpuc.ri.gov ;	
Richard Hahn Daymark Energy Advisors One Washington Mall, 9 th floor Boston, MA 02108	rhahn@daymarkea.com ;	
Seth H. Handy, Esq. (for RILCT / WCRPC) HANDY LAW, LLC 42 Weybosset Street Providence, RI 02903	seth@handylawllc.com ;	401-626-4839
	lightsmart@tds.net ;	
Dan Beardsley, Executive Director RI League of Cities and Towns (RILCT) One State St., Suite 502 Providence, RI 02908	dan@rileague.org ;	401-272-3434
	peder@rileague.org ;	
Jeff Broadhead, Executive Director Washington County Regional Planning Council (WCRPC) 344 Main St., Suite 202 Wakefield, RI 02879	jb@wcrpc.org ;	401-792-9900
Chris Kearns, Chief Program Development	Christopher.Kearns@energy.ri.gov ;	401-574-9113

RI Office of Energy Resources (OER) One Capitol Hill, 4 th Fl. Providence, RI 02808	Marion.Gold@energy.ri.gov ;	
	Nicholas.Ucci@energy.ri.gov ;	
	Danny.Musher@energy.ri.gov ;	
Daniel W. Majcher, Esq. (for OER) RI Dept. of Administration Division of Legal Services One Capitol Hill, 4 th Fl. Providence, RI 02908	Daniel.majcher@doa.ri.gov ;	401-222-8880
R. Daniel Prentiss, P.C. (for EERMC) Prentiss Law Firm One Turks Head Place, Suite 380 Providence, RI 02903	dan@prentisslaw.com ;	401-824-5150
S. Paul Ryan (EERMC)	spryan@eplaw.necoxmail.com ;	401-289-0184
File an original & 10 copies w/: Luly E. Massaro, Commission Clerk Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2017
	Cynthia.WilsonFrias@puc.ri.gov ;	
	Todd.bianco@puc.ri.gov ;	
	Alan.nault@puc.ri.gov ;	

The Narragansett Electric Company
d/b/a National Grid

Street Light Metering Pilot

Status Report No. 1

February 22, 2016

Submitted to:
Rhode Island Public Utilities Commission
RIPUC Docket No. 4513

Submitted by:
The logo for National Grid, featuring the word "national" in a standard blue font and "grid" in a bold, blue, sans-serif font.

Pilot Project Status Summary

National Grid has been working diligently and expeditiously to perform the Street Lighting Pilot (Pilot) approved by the Rhode Island Public Utilities Commission (PUC) according to the proposed budget and timeline. Unfortunately, the Company has encountered unanticipated obstacles beyond its control that have caused delays and added modest additional costs to the Pilot. For example, National Grid has experienced delays resulting from: (a) excessive time for partners in the project to execute Memoranda of Understanding (MOU) and Non-Disclosure Agreements (NDA);¹ (b) changes to the DOT's roll-out of its LED street light pilot (off which the Pilot was meant to piggyback to save costs); and (c) the DOT's decision to change its selected network service provider for its project. These and other complications have required changes to the implementation of the Pilot, including the need for National Grid to procure additional meter control devices to replace devices it originally planned to obtain from the DOT and resulting delays in beginning the laboratory testing phase. The overall scope of the pilot, however, has not changed. Despite these challenges, National Grid has continued to make progress and anticipates completion within the original timeline, although the sequencing and timing of some of the individual tasks within the pilot have changed. Additionally, the Company has and will continue to minimize any cost increases and currently forecasts that the Pilot budget will increase by \$23,450, resulting in a total budget of \$269,450. Below, the Company has provided additional details regarding the start-up of the Pilot and the stages of the Pilot.

A modified schedule and budget are provided as Attachment A (Schedule) and Attachment B (Budget).

Pilot Start-Up

The Company received informal direction from the PUC to start the Pilot on August 19, 2015. The Company assigned a project manager to the Pilot and began drafting MOUs and NDAs for all participating parties. The process of obtaining signed MOUs and NDAs took 20 weeks longer than originally scheduled, but the Company has now received executed MOUs and NDAs from all involved parties except the DOT. The Company expects to receive a signed MOU from the DOT very soon and has determined that it can work with the DOT without an NDA based upon the parties' strong mutual relationship and interest in this project's objectives. Despite the delays in these preliminary steps, National Grid has managed and revised the scheduling and sequencing of the Pilot tasks to avoid the need to extend the overall timeline.

¹ To date, the Rhode Island Department of Transportation (DOT) still has not signed its MOU and has informed National Grid that it will not sign an NDA. The Company has determined that it will proceed without an NDA from DOT and expects that it will receive the executed MOU from DOT imminently.

Stage 1, Phase 1 - Laboratory Testing

The Company engaged a third-party firm (TESCO) to perform all Stage 1-Phase 1 testing. The Company and TESCO are working together to develop testing equipment and detailed test plans. These tasks are necessary due to the lack of industry accepted testing standards and equipment for this meter technology. The Company was delayed in procuring individual manufacturers' meter control devices for two reasons. First, after the PUC approved the Pilot with the understanding that the Company would use the DOT's equipment for this process, the DOT changed its plan and required the Company to obtain equipment on its own for testing. Second, once the Company obtained contracts to obtain equipment on its own (which required completion of the Company's internal purchasing procedures and an award of contracts), those purchases were delayed because of: (a) unavailable communications components, (b) overseas manufacturing delays, and (c) commissioning problems. The Company estimates that the overall Pilot budget will increase by \$17,450 because it had to purchase this equipment on its own. That increase includes the cost of the equipment itself and associated increased labor costs.

Additionally, this process change caused an 8-week delay in starting the laboratory testing phase, and the Company has determined that the testing itself will now take approximately 18 weeks total (instead of 10 weeks) because of continued delivery delays. Consequently, this phase of the project has been delayed substantially. The Company, however, has decided that it can conduct laboratory testing and field testing (Phase 1, Stage 2) simultaneously in an effort to meet the overall Pilot schedule.

Finally, the Company has held several telephone conferences with other utilities that are currently addressing the issues associated with testing and implementation of the street light control systems and metering, and those conferences have been helpful. The Company expects that it will continue to schedule similar teleconferences.

Stage 1, Phase 2 – Field Testing

The Company's field testing plan is being redesigned from the original Pilot proposal. Under the original Pilot proposal, National Grid would conduct field tests on light emitting diode (LED) street light installations that were part of the DOT pilot project, testing the use of such lights in several locations. The DOT's project, however, has encountered certain challenges and changed in certain ways that have altered the Company's ability to use the originally planned locations. Specifically, the DOT has had data reliability problems at its first installation and has been delayed in making later installations. The DOT also changed the network communication

service provider for its project (from CIMCON to Silver Spring Network),² and is expected to reach agreement with the new provider, Silver Spring Network, in the near term.

In light of these issues, the Company has not yet been able to begin field testing. The Company, however, has been working collaboratively with the DOT and expects that it will be able to complete all the field testing necessary to achieve the Pilot goals. The Company will likely, however, conduct the testing in different locations than originally planned. These delays may require either: (a) decreasing the total time for field testing in the Pilot, or (b) a modest extension of the Pilot timeline.

Additionally, the changes to the DOT plans will likely cause a slight increase in labor costs as the Company may be required to perform field work originally anticipated to be performed by DOT. The Company expects that the budget will increase by an estimated \$6,000 to account for these labor costs.

Stage 2, Phase 1 – Information System Integration Study

The Company is reviewing several billing data strategies and developing scoping requirement documents to assess how metering street lights will impact its information systems. The Stage 2-Phase 1 development of the costs and schedules associated with the proposed system changes is on schedule. The Company is also having discussions with other utilities about billing strategy when adopting street light metering technology, along with other associated business impacts.

Stage 2, Phase 2 – Metered/Unmetered Bill Comparison

Finally, the Company will conduct a comparative billing assessment of metered versus unmetered bills to determine the accuracy of the metering technology. The Company attempted a preliminary assessment using data from the DOT's first installation, but the DOT informed the Company that the data from that location was inaccurate and that there were operational problems with the existing network control devices. The Company, therefore, has discarded that analysis and will conduct a complete assessment once further field testing at additional locations occurs.

Finally, the Company will prepare a final report of the Pilot results and findings once the Pilot has concluded.

² Silver Spring Network was the provider that National Grid recommended using in the original Pilot proposal.

**The Narragansett Electric Company
Street Light Metering Pilot Proposal
Docket No. 4513
Cost Estimate
As of February 22, 2016**

<u>Task Function</u>	<u>Labor</u>	<u>Materials</u>	<u>Contract</u>	<u>7/27/2015 SubTotal</u>	<u>2/22/2016 SubTotal</u>	<u>Comments</u>
Corporate						
Project Management	\$85,000			\$85,000	\$85,000	Project Performance, Budget, Schedule, Reporting, Vendor Mgmt.
Administrative & General	\$25,000			\$25,000	\$25,000	Legal, Procurement, Clerical, Expenses
Pacific Northwest National Laboratories (PNNL)			\$0	\$0	\$0	
				\$110,000	\$110,000	
Stage 1 - Phase 1						
Individual Meter Testing - TESCO			\$86,000	\$86,000	\$86,000	Vendor Quote
Meter Farm Testing - TESCO			Included			
<u>Test Nodes, Equipment & Services</u>						
CIMCON		\$10,750		N/A	\$10,750	Nodes and gateway
SELC		\$4,000		N/A	\$4,000	Nodes
Silver Spring Networks (SSN)		\$1,000		N/A	\$1,000	Lease of gateway
Sunrise Technology		\$0		N/A	\$0	Donated - research evaluation (\$6,000 value)
Associated Taxes & Charges		\$1,700		N/A	\$1,700	
				\$86,000	\$103,450	2/22/2016 Subtotal - 7/27/2015 Subtotal = \$17,450
Stage 1 - Phase 2						
DOT Phase 1 (Exit 7)			\$0	\$0	\$0	DOT Project
DOT Phase 2 (I-295)			\$0	\$0	\$0	DOT Project
DOT Phase 3 (Park & Ride)			\$0	\$0	\$0	DOT Project
National Grid Operations		\$6,000		N/A	\$6,000	Field operations costs during Field Application Testing
Cimcon Network Services			\$0	\$0	\$0	MOU Agreement - DOT Contract
Silver Spring Network Services			\$0	\$0	\$0	MOU Agreement - DOT Contract
				\$0	\$6,000	2/22/2016 Subtotal - 7/27/2015 Subtotal = \$6,000
Stage 2 - Phase 1						
Information Systems Studies	\$45,000			\$45,000	\$45,000	Company/Contractor IS Services
				\$45,000	\$45,000	
Stage 2 - Phase 2						
Billing Comparison Study	\$5,000			\$5,000	\$5,000	Company Regulatory Billing
				\$5,000	\$5,000	
	\$160,000	\$23,450	\$86,000			
			Pilot Total	\$246,000	\$269,450	2/22/2016 Pilot Total - 7/27/2015 Pilot Total = \$23,450