

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

IN RE: TARIFF ADVICE FILING FOR
CUSTOMER-OWNED STREET & AREA
LIGHTING PROPOSAL

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) DOCKET NO. 4442
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**THE RHODE ISLAND LEAGUE OF CITIES AND TOWNS
AND
THE WASHINGTON COUNTY REGIONAL PLANNING COUNCILS'
RESPONSE TO DIVISION'S DATA REQUEST
(MAY 21, 2014)**

1. On May 16, 2014, the Municipalities submitted to the Commission a response to National Grid's handouts and comments at the May 6, 2014 technical session. This document contains Table 1 and Table 2. Please provide all calculations, assumptions, source documentation, research, and any other materials that were relied upon to produce Table 1 and Table 2. Include all calculations in live spreadsheets with all formulae intact.

Response: The live spreadsheet is attached to the electronic version of this response with all formulae intact. This portion of the Data Request cannot be accommodated in paper copies.

The Towns' estimates of post-purchase maintenance and LED conversion costs are based on our research and the experience of our expert witnesses, primarily Mr. George Woodbury. Mr. Woodbury has contracted for the installation and maintenance of HPS and LED streetlighting systems for municipalities across the country as a consultant and as a Public Works Director, and worked as a Vice President of the streetlighting division of Siemens Corp., a company that manages more than one million municipally owned streetlights. He has prepared bid documents and evaluated bid responses for the projects in Massachusetts including Arlington, Watertown, Cambridge, Lexington, Natick, Woburn, Chelsea, Somerville, Easton, The Cape and the Islands, and Fairhaven receiving material quotes from numerous manufacturers as part of this process. He has done the same in other parts of the country, including: Omaha Nebraska, Huntington Beach, Duncan Oklahoma, Pensacola Florida, and others. He has prepared the bids and reviewed the submissions for maintenance to street lighting systems for over sixty communities. Mr. Woodbury also confirmed the projections with installation and maintenance contractors Siemens and Citlum, a company with more than 2.5 million municipal lights in management, including HPS, LED, and controlled/metered systems. We have also reviewed reports published by the MSSLC and communities like Los Angeles, San Diego and others. This extensive knowledge base allows us to provide very accurate cost estimates based on actual bids. The Tariffs are published and are very clear so there is little research required.

Additionally, WCRPC is a member of the US Department of Energy’s Municipal Solid State Streetlighting Consortium, and has contacted other members about relevant experiences. Our estimates of the additional efficiencies due to adding controls to LED streetlights were corroborated in an email from the EERMC’s Dr. Abigail Anthony: “...The EERMC's Consultant Team provided me with the following information: -They expect that metered controls add another 10-15% of savings over the savings from the switch to LEDs.”

Much of the data for Tables 1 and 2 are based on National Grid’s data submissions early in Docket 4442. The first Tab in the live spreadsheet, labeled “Raw” is directly from what the Company submitted as inventory. Other tabs in the spreadsheet extract this data and include calculations based on that data.

Little or no additional research was needed to prepare the Municipal Response. During the two years this project has been in preparation, considerable general and specific knowledge has been gained from research. The research included areas of HPS lighting, controls, metering, LED lighting, conversion costs, maintenance costs, etc. It included conversations with municipalities across the United States and world that are studying or have deployed LED lights and control systems. This general knowledge informed our preparation of the Municipal Response and it cannot be provided. Likewise, our expert witness, George Woodbury, has a career of working with municipalities, LED companies, controls companies, contractors, and regulators that went into the preparation of Tables 1 and 2. This, too, cannot be provided. No other materials were used in preparing Tables 1 and 2.

Below, we specifically discuss each cell in the tables:

Table 1

Item	Source(s)
Electricity (RILCT) + Distribution (NGRID)	NGRID, municipal bills
Fixtures & Maintenance (NGRID)	NGRDI and S-14 Rate Tariff
Maintenance (PRISM)	Mr. Woodbury expert witness, vendor consultations
Purchase Price of Fixtures	Mr. Woodbury expert witness
LED Conversion (10 year Lease purchase)	Mr. Woodbury expert witness
Total Annual Expenses	Calculated
Potential Annual Savings	Calculated
Average cost per light per year	Calculated

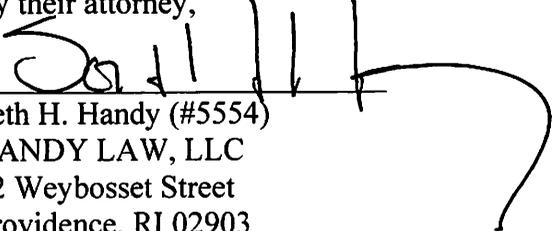
Table 2: NGRID 50w HPS vs. Muni 19w LED equivalent

Item	Ownership	NGRID owned	Municipal owned
		50 watt HPS	19 watt LED
Wattage		NGRID testimony	Mr. Woodbury testimony
Number in service		NGRID data	NGRID data
Hours per year		NGRID	NGRID
kWh used		Calculated	Calculated
kWh charges		Calculated using NGRID's 15.8	Calculated using NGRID's 15.8 to make comparison
Maintenance charges		S-14 Fixture charges times number of lights	Mr. Woodbury expert witness
Total annual cost		Calculated	Calculated
Total annual savings		0	Calculated
Annual cost per light		Calculated	Calculated
Annual savings per light		0	Calculated

Respectfully submitted,

THE RHODE ISLAND LEAGUE OF CITIES
AND TOWNS AND THE WASHINGTON
COUNTY REGIONAL PLANNING COUNCIL

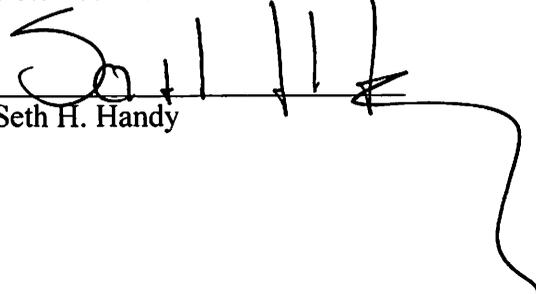
By their attorney,



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CERTIFICATE OF SERVICE

I hereby certify that on May 23, 2014, I delivered this original pleading to the PUC and sent true copies of the documents by electronic mail to the service list.



Seth H. Handy