

May 16, 2014

**VIA HAND DELIVERY & ELECTRONIC MAIL**

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

**Re: Docket 4443 - Electric and Natural Gas Least Cost Procurement Efficiency  
Savings Targets for Years 2015-2017  
Responses to PUC Data Requests – Set 1**

Dear Ms. Massaro:

On behalf of National Grid<sup>1</sup> I have enclosed the Company's responses to the first set of data requests issued by the Public Utilities Commission ("PUC") on May 8, 2014 in the above-referenced proceeding.

Thank you for your attention to this transmittal. If you have any questions, please contact me at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4443 Service List  
Leo Wold, Esq.  
Steve Scialabba, Division

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

## Certificate of Service

I hereby certify that a copy of the cover letter and/or any materials accompanying this certificate were electronically transmitted to the individuals listed below. Paper copies of this filing were hand delivered to the Rhode Island Public Utilities Commission and the RI Division of Public Utilities and Carriers.



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Joanne M. Scanlon

May 16, 2014  
Date

**Docket No. 4443 – RI Energy Efficiency and Resource Management Council  
("EERMC") – Energy Savings Target for Period 2015 - 2017  
Service List updated on 5/2/14**

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PUC 1-1

Request:

Explain how the discount rate used in the TRC Test was derived?

Response:

The Company believes it is appropriate to use a discount rate that indicates the low risk associated with energy-efficiency investments when applying the TRC Test in Rhode Island. This rate is lower than the Company's weighted average cost of capital (WACC) and is preferred based on the fact that investments in energy efficiency carry less risk than investments in supply-side resources to both the Company and its customers.

For the Company, investments in energy efficiency are low risk because the Company can recover its costs through an Energy Efficiency Program Charge. For the customer, energy efficiency costs less than supply and can reduce a customer's exposure to energy prices by allowing them to reduce energy usage and bills. While energy prices are subject to volatile fossil fuel prices and future carbon regulations, investments in energy efficiency provide a hedge by locking in energy savings over the 10-20 year life of the installed measures at a fixed cost that is less than the cost of supply. Furthermore, the investment is low risk because the claimed energy savings are realistically adjusted using performance data on prior similar projects. This is support for applying a discount rate to investments in energy efficiency that is lower than the discount rate applied to investments in supply-side resources.

Guidance for selecting the discount rate for the TRC Test is not specified in Rhode Island law or regulation. Therefore, the Company has followed the guidance set forth in Massachusetts, which employs a similar TRC Test, and in which the Company has an affiliate also acting as an energy efficiency program administrator. In Massachusetts, the Massachusetts Department of Public Utilities (DPU) has issued guidelines in Docket DPU 08-50-B (Guidelines, 3.4.6), which state:

"Discount Rate. Benefits and costs that are projected to occur over the term of each Energy Efficiency Program shall be stated in present value terms, using a discount rate that is equal to a twelve-month average of the historic yields from the ten-year United States Treasury note, using the previous calendar year to determine the twelve-month average."

For the 2014 EE Program Plan, in order to determine the discount rate, the Company obtained the real yield rates using 2012 as the base year from the United States Treasury website and then

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calculated the twelve-month average.<sup>1</sup> The Company used the real rate instead of the nominal rate due to the fact that all values in the plan and benefit-cost model are represented in constant dollars. After calculating the average, the Company discovered that the derived average real yield rate was negative. In order to avoid a negative rate, the Company decided to use the average yield from a twenty-year note – a similar low risk investment – instead of a ten-year note. This decision was based on the assumptions that the negative rate was likely an anomaly and that long-term interest rates are expected to rise gradually to more normal levels as the economic recovery continues and inflation expectations remain near 2 percent.

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<sup>1</sup> Real: <http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=realyieldYear&year=2012>

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PUC 1-2

Request:

Please estimate the time and resources necessary to update the TRM to include cost assumptions and methodologies?

Response:

The Company can include cost assumptions and methodologies in the TRM with input from various National Grid staff and vendors. The Company does not anticipate the need to hire additional resources for this effort. Please see the Company's response to PUC 1-3 for an estimate of the time in which it would take to complete this task.

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PUC 1-3

Request:

Is it possible to update the TRM before the filing date of the 2015 annual EE plan to include cost assumptions and methodologies? If not, what is the earliest it can be updated to include costs?

Response:

The Company will coordinate an update of costs for its 2015 Energy Efficiency Program Plan and benefit-cost models, but the additional time and analysis required to integrate those costs and their references in the 2015 TRM is not feasible by November 1<sup>st</sup>. Various National Grid staff, who would be needed for the additional tasks of compilation and documentation of cost data and sources, will be working full time on the development of the 2015-2017 Three Year Plan and 2015 Plan. In addition, the cost data will then have to be organized such that it aligns with the structure of the TRM.

The Company believes it could collect and organize the cost data into an updated version of the 2015 TRM by March 31, 2015.

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PUC 1-4

Request:

Although it contains a glossary, the TRM does not have legends for most, if not all, of the tables. Since the TRM is touted as a transparent guide, would the Company be amenable to including legends in the TRM?

Response:

The Company is amenable to adding elements to the TRM that improve its clarity and transparency. However, the Company would like to better understand what is meant by 'table' or 'legend' in order to determine the feasibility and timing of the additions.

PUC 1-5

Request:

Assuming all of the measures are not documented in the TRM, how does the Company select which measures to include in the TRM?

Response:

The TRM contains supporting information for all measures offered through the Company's energy-efficiency programs for the subject year.

The TRM contains "Measure Characterizations," as described on pages 6 through 9 of the TRM. As noted there, each page in the Measure Characterizations section of the 2014 TRM, pages M-1 to M-252, represents a measure category, a high-level label for a single measure or a range of measures linked by common technology and/or application. For example, the measure category, Motors/Drives-Variable Speed Drives on page M-176, contains four variable speed drive measures, each of which varies in application. Within each of those measures, there are potentially dozens of devices that vary in size, use, and model, but whose savings are analyzed with the documented common engineering methodologies.

This structure for organizing measures within a measure category is designed to simplify the presentation of information and to facilitate the use of the TRM. If each variation of a measure was included in the TRM, there would be numerous repetitive pages for each measure category. Instead, the TRM communicates how savings are counted for groups of similar devices. The TRM, therefore, does include all measures and does represent all ways in which savings accrue.

For new measures, whenever a new energy-efficiency device is offered in a program, National Grid first considers whether it falls under an existing measure category. If the device does correspond to an existing measure category, National Grid considers whether it maps to an existing measure within that measure category (e.g., a 95% average fuel utilization efficiency boiler within the Boiler measure category). That determination is based on the device's rated size and efficiency. If it does not map, a new measure category and/or measure(s) are added to the TRM.

PUC 1-6

Request:

Page 3 of the TRM states, "The TRM does not provide regulators and stakeholders with data inputs at a level that is detailed enough to enable replication of the savings reported by PAs." How accurate are the savings listed in the TRM?

Response:

The savings listed in the TRM are derived from impact evaluations, and internal research and analysis, which are the best information available to the Company. Each year, the savings and their sources are updated based on some of the most advanced and well-regarded evaluation studies in the country and other latest industry information and reviewed for accuracy by the Company and then by the consultant team that advises the Energy Efficiency and Resource Management Council. The savings presented in the TRM, therefore, are accurate, to the best of the Company's knowledge.

The statement quoted in the PUC's request is meant to communicate that although accurate savings and savings methodologies are included in the TRM, that information alone is not sufficient to replicate savings amounts included in the Energy Efficiency Program Plan, such as Table E-6 or G-6. For the measures that have savings per unit listed in the TRM, data on quantities are needed to calculate savings. For the measures that only have savings methodologies listed in the TRM, site-specific information is needed to calculate savings with engineering formulas. For example, a savings algorithm that is tied to square footage of installed insulation needs an input of square footage. Finally, for custom projects, site-specific engineering studies are needed to calculate savings.

The TRM alone, therefore, cannot be used to reproduce savings quantities. While it provides methodologies and often per-widget savings, it functions as a description of how savings will be counted, not as the tabulation itself. For more information on how the TRM represents all measures offered in the Company's efficiency programs, please refer to the Company's response to PUC 1-5.