

December 9, 2020

VIA ELECTRONIC MAIL

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

RE: Docket 5076 – 2021-2023 Energy Efficiency Program Plan & 2021 Energy Efficiency Plan Responses to PUC Data Requests – Set 9 (Complete Set)

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a National Grid (“National Grid” or the “Company”), attached, please find the electronic version of the Company’s responses to the Public Utilities Commission’s (“PUC”s) Ninth Set of Data Requests (“Complete Set 9”) in the above-referenced docket.¹

Please note that all of the responses to Set 9 were filed on December 6, 2020 except for 9-1, which the Company received an extension to December 9 and is included in the attached.

Thank you for your attention to this filing. If you have any questions or concerns, please do not hesitate to contact me at 401-784-4263.

Sincerely,



Andrew S. Marcaccio

cc: Docket 5076 Service List
John Bell, Division
Jon Hagopian, Esq.

¹ The Company will deliver to the Commission six, three-hole punched hard copies of PUC Set 9 with Bates stamp.

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.



December 9, 2020

Joanne M. Scanlon

Date

**Docket No. 5076 - National Grid – 2021-2023 Energy Efficiency Program
Plan & 2021 Annual Energy Efficiency Program Plan
Service list updated 12/7/2020**

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The Narragansett Electric Company
d/b/a National Grid
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PUC 9-1

Request:

Refer to the response to PUC 1-57 which indicates that the City of Warwick was provided a loan for \$3.2 million for an LED streetlight conversion project funded completely through SBC funds; and Attachment PUC 4-23-8 which is an email from the City stating that it was in the process of “purchasing the existing street lighting infrastructure from National Grid with the intent of replacing the existing light fixtures with upgraded LED lamp technology.” (a) Has the Company provided an inventory of the lighting to Warwick in connection with the purchase? (b) Has the Company provided an estimated and/or final purchase price to Warwick? If yes, please identify the estimated and/or final price provided to Warwick for the sale of the assets, as estimated in their pre-conversion condition (please distinguish between the pre-sale cost of the assets and the cost of converting to LED lighting). (c) What is the status of the purchase and sale of streetlights between Warwick and the Company? (d) What is the status of the LED conversion project?

Response:

- a. Yes, the Company provided the City of Warwick an inventory earlier this year.
- b. The sale was completed on September 30th, 2020. The sale price of those assets was \$50,048.98 in their pre-conversion state. It is not possible to determine the cost of conversion to LED as Warwick and their consultant have not made final fixture and controls selection.
- c. The sale is complete.
- d. The customer and their consultant are currently assessing several fixture brands and models in situ. The customer is expected to begin the conversion to LED fixtures in Q1 2021. The conversion is expected to be complete by Q3 2021.

PUC 9-2

Request:

Please provide the payback periods at the Program level using the cost of supply, Total Resource Cost, and RI Test.

Response:

The Company has performed this analysis for the 2021 energy efficiency programs contained in the electric and natural gas portfolios.

The electric and gas BCA Excel models output only the present value of the lifetime benefits attributable to measures (and consequently programs and portfolios when those measures are aggregated), rather than summarizing annual levels of benefit streams at the program level. While the savings generated by a measure on an annual basis are assumed to remain constant over the duration of a measure's life, the avoided costs against which those streams of savings are monetized into benefits vary over time.

Therefore, annual savings will remain constant over the lifetime of measure, while annual benefit values can vary. For purposes of this analysis, the present value of program level lifetime benefits have been converted to annual values that are equal over the duration of the lifetime of the savings and benefits in a program.

The calculations of payback used for this request can be generalized as follows:

$$\text{Payback Period} = \frac{(\text{Program Implementation Expenses} + \text{Customer Contribution})}{\text{Annual Benefits}}$$

For each of the three parts of the response, the numerator in the calculation is equivalent to the sum of the "Program Implementation Expenses" and "Customer Contributions" columns as shown in Table E-5 (Bates 561) and G-5 (Bates 574).

The average measure life by program is determined by dividing the lifetime energy savings by the annual energy savings, as seen in E-6A (Bates 564) and G-6A (Bates 577).

For Part One of the analysis (cost of supply), two versions are shown:

- Version 1 only includes the benefit category "Electric Energy Costs" or "Natural Gas Costs" for the electric and gas portfolios, respectively.

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- Version 2 includes the categories of benefits that are included as costs of energy supply in the cost of supply analysis as indicated in Table 36 (Bates 117) of the filing,

For Part Two of the analysis, the Company has used all of the benefits as included in the calculation of the Total Resource Cost (TRC) Test BCA as shown in Table E-5A (Bates 562) and G-5A (Bates 575) of the filing.

For Part Three of the analysis, the Company has used all of the benefits as included in the calculation of the RI Test BCA for programs as shown in Table E-5 (Bates 561) and G-5 (Bates 574).

Refer to the summary tables below for the payback period (in years) under each part of the requested analysis. In scenarios where the calculated payback period is greater than the average measure life for the program, the payback period for the program in that part is listed as “N/A”.

Electric Portfolio – Programmatic Payback Periods (Years)

Sector	Program	Part 1		Part 2	Part 3
		Version 1: Cost of Supply ("Electric Energy Costs")	Version 2: Cost of Supply (Table 36 - Bates 117)	TRC Test BCA (Table E5A - Bates 562)	RI Test BCA (Table E5 - Bates 561)
Residential	Residential New Construction	N/A	10.1	11.5	6.6
Residential	Energy Star® HVAC	N/A	9.2	11.4	5.6
Residential	EnergyWise	N/A	N/A	N/A	2.7
Residential	EnergyWise Multifamily	N/A	N/A	9.7	4.7
Residential	Home Energy Reports	N/A	0.4	0.5	0.3
Residential	Energy Star® Lighting	N/A	2.0	2.0	0.7
Residential	Residential Consumer Products	N/A	3.5	4.2	2.2
Commercial & Industrial	Large Commercial New Construction	12.1	4.8	5.4	2.5
Commercial & Industrial	Large Commercial Retrofit	11.5	4.4	4.2	1.6

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Sector	Program	Part 1		Part 2	Part 3
		Version 1: Cost of Supply ("Electric Energy Costs")	Version 2: Cost of Supply (Table 36 - Bates 117)	TRC Test BCA (Table E5A - Bates 562)	RI Test BCA (Table E5 - Bates 561)
Commercial & Industrial	Small Business Direct Install	N/A	7.3	7.2	3.2
Income Eligible	Single Family - Income Eligible Services	N/A	11.8	7.2	4.4
Income Eligible	Income Eligible Multifamily	N/A	N/A	N/A	8.5
Residential	Residential ConnectedSolutions	N/A	0.2	0.2	0.2
Commercial & Industrial	Commercial ConnectedSolutions	N/A	0.1	0.1	0.1

Natural Gas Portfolio – Programmatic Payback Periods (Years)

Sector	Program	Part 1		Part 2	Part 3
		Version 1: Cost of Supply ("Natural Gas Costs")	Version 2: Cost of supply (Table 36 - Bates 117)	TRC Test BCA (Table G5A - Bates 575)	RI Test BCA (Table G5 - Bates 574)
Residential	Energy Star® HVAC	N/A	14.1	N/A	10.1
Residential	EnergyWise	N/A	N/A	N/A	10.9
Residential	EnergyWise Multifamily	N/A	13.9	5.5	3.5
Residential	Home Energy Reports	0.5	0.3	0.5	0.2
Residential	Residential New Construction	N/A	N/A	N/A	18.0
Commercial & Industrial	Large Commercial New Construction	11.2	7.0	6.0	3.2
Commercial & Industrial	Large Commercial Retrofit	5.2	3.3	2.6	1.5
Commercial & Industrial	Small Business Direct Install	9.7	6.1	5.4	2.6

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Sector	Program	Part 1		Part 2	Part 3
		Version 1: Cost of Supply ("Natural Gas Costs")	Version 2: Cost of supply (Table 36 - Bates 117)	TRC Test BCA (Table G5A - Bates 575)	RI Test BCA (Table G5 - Bates 574)
Commercial & Industrial	Commercial & Industrial Multifamily	12.0	7.6	6.1	3.1
Income Eligible	Single Family - Income Eligible Services	N/A	N/A	10.7	6.5
Income Eligible	Income Eligible Multifamily	20.3	13.4	9.8	5.0

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PUC 9-3

Request:

Please provide the ACEEE ranking and score (e.g., out of a possible 20) of Rhode Island’s Utility and Public Benefits Programs and Policies for the years 2015 to the present.

Response:

Below, please find a table summarizing the results of each ACEEE State Energy Efficiency Scorecard by year since 2015, including Rhode Island’s overall state ranking as well as ACEEE’s evaluation of Rhode Island’s ‘Utility & Public Benefits Programs and Policies’.

ACEEE State Energy Efficiency Scorecard Year	RI Utility & public benefits programs and policies score (out of 20 possible pts.)	Overall RI State Rank	Source	Page
2015	20	4	https://www.aceee.org/sites/default/files/publications/researchreports/u1509.pdf	x
2016	20	4	https://www.aceee.org/sites/default/files/publications/researchreports/u1606.pdf	xi
2017	20	3	https://www.aceee.org/sites/default/files/publications/researchreports/u1710.pdf	xi
2018	20	3	https://www.aceee.org/sites/default/files/publications/researchreports/u1808.pdf	xii
2019	20	3	https://www.aceee.org/sites/default/files/publications/researchreports/u1908.pdf	ix
2020	Not yet released			