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Also admitted in Massachusetts

November 14, 2023

VIA ELECTRONIC MAIL AND HAND DELIVERY

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

Dear Ms. Massaro:

Re: Docket No. 23-35-EE – 2024-2026 Three Year Energy Efficiency Plan and 2024 Annual Energy Efficiency Plan Responses to Division Data Requests – Set 4

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy ("Rhode Island Energy" or the "Company"), I have enclosed the Company's responses to the Fourth Set of Data Requests issued by the Division of Public Utilities and Carriers in the above-referenced docket.

Please contact me if you have any questions. Thank you for your attention to this matter.

Very truly yours,

Leticia Pimentel

Leticia C. Pimentel

cc: Docket 23-35-EE Service List

Boston | Hartford | New York | Washington, DC | Providence | Miami | Stamford | Wilmington | Philadelphia | Los Angeles | Albany | rc.com

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate were 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.

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Heidi J. Seddon

November 14, 2023 Date

Docket No. 23-35-EE – Rhode Island Energy's EE Plan 2024-2026 Three-Year Plan and 2024 Annual EEP Service list updated 10/4/2023

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Division 4-1

Request:

Regarding the Company's response to Division 1-17, to what extent are increases in the cost of saved energy in 2024 due to increases in participant costs in the following electric programs? Which measure(s) are responsible for this change?

- a. EnergyWise Single Family
- b. EnergyWise Multifamily
- c. Residential Consumer Products

Response:

- a. For the EnergyWise Single Family program, approximately 0.1% of the increase in the cost of saved energy in 2024 is due to the increase in participant cost. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix and quantity between 2023 and 2024.
- b. For the EnergyWise Multifamily program, approximately 3.7% of the increase in the cost of saved energy in 2024 is due to the increase in participant cost. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix and quantity between 2023 and 2024.
- c. For the Residential Consumer Products program, the increase in the cost of saved energy is not due to an increase in participant costs between 2023 and 2024. The increase in the cost of saved energy in 2024 is largely driven by a decrease in lifetime MWh for two measures, Refrigerator Recycling (measure life reduction) and Advanced Power Strip – Tier 2 (large reduction in quantity).

Division 4-2

Request:

Regarding the Company's response to Division 1-19, to what extent are increases in the cost of saved energy in 2024 due to increases in participant costs in the following gas programs? Which measure(s) are responsible for this change?

- a. Residential HVAC
- b. EnergyWise Multifamily
- c. Small Business Direct Install

Response:

- a. For the Residential HVAC program, participant costs decreased between 2023 and 2024. The increase in the cost of saved energy in 2024 is largely driven by a larger decrease in lifetime MMBtu than the decrease in Program Implementation and Participant Costs. Reductions in measure quantities for two measures were the primary driver for this decrease in lifetime MMBtu: Combo Condensing Boiler/Water Heater 95% AFUE and Wifi Thermostat, Gas Cooling and Heating.
- b. For the EnergyWise Multifamily program, approximately 16% of the increases in the costs of saved energy in 2024 are due to increases in participant costs. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix from 2023 and 2024.
- c. For the Small Business Direct Install program, approximately 1.3% of the increases in the costs of saved energy in 2024 are due to increases in participant costs. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix from 2023 and 2024.

Division 4-3

Request:

Regarding the Company's response to Division 1-20, to what extent are increases in the participant costs in 2024 due to decreases in the measure cost covered by the incentive in the following electric programs? Which measure(s) are responsible for this change?

- a. Residential HVAC
- b. EnergyWise Multifamily
- c. Large C&I New Construction

Response:

a. For the Residential HVAC program, increases in 2024 participant costs are not due to decreases in the measure cost covered by incentives. While the participant costs did increase from 2023 to 2024 for the Residential HVAC program, the portion of measure costs covered by the participant <u>decreased</u> by approximately 3% in 2024.

The increase in the measure cost covered by the incentive is mainly driven by a large increase in the planned quantities for the "Electric Resistance to MSHP" measure. This measure has an incentive that makes up approximately 59% of the measure cost which resulted in a significant increase to the Residential HVAC program incentive cost from 2023 to 2024 with not as large as an impact to the participant cost.

In the course of preparing the response to this question, the Company identified a measure for which quantities were planned but an incentive had not been included. This omission does not materially affect the response to this question. The Company will provide updated tables prior to the hearing reflecting an increase of approximately \$10,500 to the electric Residential HVAC budget.

- b. For the EnergyWise Multifamily program, approximately 5% of the increases in the measure cost covered by participants in 2024 are due to decreases in the measure cost covered by the incentive. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather it is due to differences in the measure mix from 2023 and 2024.
- c. For the Large C&I New Construction program, approximately 3% of the increases in the measure cost covered by participants in 2024 are due to decreases in the measure

Prepared by or under the supervision of: Spencer Lawrence, Mark Siegal and Daniel Tukey

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cost covered by the incentive. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather it is due to differences in the measure mix from 2023 and 2024.

Division 4-4

Request:

Regarding the Company's response to Division 1-22, to what extent are increases in the participant costs in 2024 due to decreases in the measure cost covered by the incentive in the following gas programs? Which measure(s) are responsible for this change?

- a. EnergyWise Single Family
- b. Large C&I New Construction
- c. C&I Multifamily

Response:

- a. For the EnergyWise Single Family program, approximately 0.3% of the increases in the portion of measure costs covered by the participant in 2024 are due to decreases in the measure cost covered by the incentive. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix from 2023 and 2024.
- b. For the Large C&I New Construction program, approximately 13% of the increases in the portion of measure costs covered by the participant in 2024 are due to decreases in the measure cost covered by the incentive. The main reason for these differences from 2023 to 2024 is due to the measure mix. In preparing the response, the Company identified an error where a cooling measure had planned quantities but no incentives, which inflated the participant costs. The Company will provide updated tables prior to the hearing reflecting an additional \$99,669 included in the C&I Gas New Construction budget which will reduce the 13% value provided above to 7%.
- c. For the C&I Multifamily program, approximately 3% of the increases in the portion of measure costs covered by the participant in 2024 are due to decreases in the measure cost covered by the incentive. There are no specific changes to measure incentive levels responsible for the change in participant costs; rather, it is due to differences in the measure mix from 2023 and 2024.

Division 4-5

Request:

Regarding the Company's responses to Division 1-24 and 1-25, to what extent are changes to the benefits and benefit-cost ratios in 2024 due to changes in the avoided costs per unit of savings (MWh, MW, therms, gallons, etc.) in the electric portfolio for the following?

- a. Energy
- b. Capacity
- c. Non-Electric: Resource
- d. Non-Electric: Non-Resource
- e. Carbon
- f. NOx

Response:

The approach the Company took to isolating the extent to which changes in benefits and benefitcost ratios (BCR) were due to changes in avoided costs was to run the 2024 BCR model (including 2024 measure-level quantities, impacts, etc.) using the 2023 BCR model's avoided costs. Please see the table below for percent changes in benefits associated with / isolated to changes in avoided costs.

Please note that changes to benefit-cost ratios are not completely separable by benefit category. However, taking a product of the "% Change in Benefits Between 2024 and 2023 due to Avoided Cost changes" column and the "% of Total 2024 Benefits" column for each benefit category provides an approximation of the change in benefit-cost ratios due to the change in avoided costs.

The reason this product is only an approximation is that the performance incentive cost component of the benefit-cost ratio relies on a net benefits (non-multiplicative) framework and is calculated as a function of all benefits at the sector level.

Benefit Category	% change in benefits between 2024 and 2023 due to Avoided Cost changes	% of Total 2024 Benefits	Approx. % change in BCR between 2024 and 2023 due to changes to avoided costs
Energy	3.2%	37.0%	1.2%
Capacity	11.6%	19.3%	2.2%
Non-Electric: Resource	2.5%	11.6%	0.3%
Non-Electric: Non-Resource	1.3%	16.0%	0.2%
Carbon	-9.8%	15.5%	-1.5%
NOx	0.3%	0.6%	< 0.1%

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Division 4-6

Request:

Regarding the Company's response to Division 1-26, to what extent are changes to the benefits and benefit-cost ratios in 2024 due to changes in the avoided costs in dollars per unit of savings (MWh, MW, therms, gallons, etc.) in the gas portfolio for the following?

- a. Natural Gas
- b. Electric Energy
- c. Electric Capacity
- d. Non Gas/Electric: Resource
- e. Non Gas/Electric: Non-Resource
- f. Carbon
- g. NOx

Response:

Please see the Company's response to Division 4-5 for the methodology used to isolate differences in benefits associated with changes in avoided costs between 2023 and 2024. Please see the table below for percent changes in benefits associated with / isolated to changes in avoided costs.

Please note that changes to benefit-cost ratios are not completely separable by benefit category. However, taking a product of the "% Change in Benefits Between 2024 and 2023 due to Avoided Cost changes" column and the "% of Total 2024 Benefits" column for each benefit category provides an approximation of the change in benefit-cost ratios due to the change in avoided costs.

The reason this product is only an approximation is that the performance incentive cost component of the benefit-cost ratio relies on a net benefits (non-multiplicative) framework and is calculated as a function of all benefits at the sector level.

Benefit Category	% change in benefits between 2024 and 2023 due to Avoided Cost changes	% of Total 2024 Benefits	Approx. % change in BCR between 2024 and 2023 due to changes to avoided costs
Natural Gas	2.0%	35.6%	0.7%
Electric Energy	2.3%	0.5%	< 0.1%
Electric Capacity	11.7%	0.9%	0.1%
Non Gas/Electric: Resource	0.0%	0.6%	< 0.1%
Non Gas/Electric: Non-Resource	1.3%	34.7%	0.5%
Carbon	-6.0%	24.7%	-1.5%
NOx	1.3%	3.0%	< 0.1%

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Division 4-7

Request:

Regarding the Company's responses to Division 1-33 which states: "Carbon savings are determined from energy savings using conversion factors. The conversion factors were not changed from 2023 to 2024." Does the term conversion factor mean the emissions rates? Please define the term conversion factor.

Response:

In the Company's response to Division 1-33, the term "conversion factor" means "marginal emissions rate" for the non-electric sector.

Division 4-8

Request:

Does the Company think that installing gas EE measures in 2024 which would emit carbon in 2040 and beyond (by which point emissions need to be cut by at least 80 percent) supports the Act on Climate? If so, please explain how.

Response:

It is the Company's position that installing gas EE measures in 2024 is consistent with the Act on Climate in the near-term (e.g., for the Act's 2030 emissions mandate), and that a consistency determination for 2040 and beyond – prior to the Technical Analysis being performed for the Docket 22-01-NG – is premature. Several of the decarbonization scenarios proposed to be examined in Docket 22-01-NG contemplate long-term use of the gas network post-2040. Moreover, these proposed scenarios assume renewable fuels will replace fossil gas, thus decarbonizing the gas network. Should the gas network be strategically leveraged over the long-term, the absence of gas EE measures could undermine the Act on Climate's interim mandates as we transition to renewable fuels. Lastly, natural gas has lower greenhouse house emissions than delivered fuels, especially when paired with EE measures, so in the absence of a state law prohibiting the continued use of delivered fuels, encouraging customers to switch from delivered fuels to natural gas advances the Act on Climate even in the long-term.

Division 4-9

Request:

How many gas EE measures will the Company install in 2024, 2025, and 2026 with a measure life of 2040 and beyond? What are the expected carbon emissions in 2040 from these measures?

Response:

Please see the table below for the quantities of gas measures planned to be installed in each year with measure lives that will extend to 2040 and beyond and the associated avoided carbon emissions from these measures in 2040. The quantities for 2024 are the count of measures that have measure lives of 16 years or greater; for 2025, 15 years or greater; and for 2026, 14 years or greater. There is a large jump between 2024 and 2025 because there are many measures that have a measure life of 15 years.

Year	Number of Unique Measures	Measure Quantities (1)	Expected Carbon Reductions (short tons) in 2040
2024	124	15,382 (Residential)	3,878
		24,287 therms (C&I)	
2025	250	17,158 (Residential)	9,436
		135,335 therms (C&I)	
2026	251	17,233 (Residential)	9,837
		145,891 therms (C&I)	

⁽¹⁾ C&I measures are planned in therms.

Division 4-10

Request:

Please provide a Table like *Table 5. Overall Analysis of Energy Efficiency Fund Balance* found in the Energy Efficiency Year-End Report with information to date.

Response:

This table includes actual revenue, expenses and interest through October 2023. It also includes the latest forecasts for November and December of revenue, expenses, interest and incentive.

National Grid TABLE 1 OVERALL ANALYSIS OF ENERGY EFFICIENCY FUND BALANCE							
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	TOTAL
1. Start Of Period Balance	\$42,827,044	\$46,132,804	\$47,308,362	\$45,634,168	\$46,598,276	\$45,040,634	\$42,827,044
2. Revenue	\$6,007,890	\$2,492,598	\$4,035,872	\$8,360,739	\$7,561,934	\$7,596,166	\$36,055,199
3. Monthly EE Expenses	\$2,774,174	\$1,407,994	\$5,853,887	\$7,544,528	\$9,268,312	\$3,259,577	\$30,108,472
4. Cash Flow Over/(Under)	\$3,233,716	\$1,084,604	(\$1,818,015)	\$816,212	(\$1,706,378)	\$4,336,588	\$5,946,728
5. End Of Period Balance Before Interest	\$46,060,760	\$47,217,408	\$45,490,347	\$46,450,379	\$44,891,898	\$49,377,223	\$48,773,772
6. Interest	\$72,043	\$90,955	\$143,820	\$147,896	\$148,737	\$152,213	\$755,665
7. End Of Period Balance After Interest	\$46,132,804	\$47,308,362	\$45,634,168	\$46,598,276	\$45,040,634	\$49,529,436	\$49,529,436
	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	YEAR END TOTAL
8. Start Of Period Balance	\$49,529,436	\$50,088,397	\$51,138,380	\$54,458,440	\$50,484,050	\$29,432,512	\$42,827,044
9. Revenue	\$8,643,036	\$8,092,831	\$7,622,056	\$7,241,365	\$8,149,036	\$10,605,428	\$86,408,952
10. Monthly EE Expenses	\$8,242,058	\$7,202,926	\$4,467,565	\$11,379,670	\$29,324,012	\$29,324,012	\$120,048,714
* 11. Cash Flow Over/(Under)	\$400,978	\$889,905	\$3,154,491	(\$4,138,305)	(\$21,174,975)	(\$18,718,584)	(\$33,639,762)
[*] 12. End Of Period Balance Before Interest	\$49,930,415	\$50,978,301	\$54,292,871	\$50,320,135	\$29,309,075	\$10,713,928	\$9,187,282
13. Interest	\$157,982	\$160,078	\$165,570	\$163,915	\$123,437	\$59,926	\$1,586,573
⁷ 14. End Of Period Balance After Interest	\$50,088,397	\$51,138,380	\$54,458,440	\$50,484,050	\$29,432,512	\$10,773,854	\$10,773,854
15. 2023 Incentive							\$3,817,653
16. Ending Balance after Incentive							\$6,956,201
17. Income Eligible Subsidization							\$0
⁷ 18. Ending Balance after Subsidization							\$6,956,201
 Previous year's ending balance Business Objects queries for revenues SAP queries for expenses Line 2 minus Line 3 Line 1 plus Line 4 Interest applied Line 5 plus Line 6 Previous month's ending balance 	 9. Business Objects queries for revenues 10. SAP and Oracle queries for expenses 11. Line 9 minus Line 10 12. Line 8 plus Line 11 13. Interest applied 14. Line 12 plus Line 13 15. Estimated 2023 Incentive plus prior period true-ups 						